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# MANAGEMENT OF ENTERPRISES OF THE AGRO-INDUSTRIAL COMPLEX OF THE ECONOMY IN THE CONDITIONS OF GLOBALIZATION TRANSFORMATIONS

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## **ABSTRACT**

At the present stage of economic development, the agro-industrial sector of Ukraine is one of the most important parts of the economic systems of most countries with market economies. It is developing in conditions of high energy security, the use of a wide range of agronomic techniques, greening based on the use of modern energy and environmental technologies, methods and ways of managing agro-industrial enterprises.

The production base of the agro-industrial sphere is based on an extensive infrastructure network and a system of research support for its development.

Ways of development of the agro-industrial sector of Ukraine include balanced and interconnected structural restructuring of all its branches, maximum introduction into production of the most important achievements of scientific and technological progress, world experience, the most progressive forms of economy and organization of production. property, including the deepening of land ownership relations and the introduction of mechanisms for the realization of property rights; privatization of processing enterprises; restructuring of enterprises and forms of management; development of cooperation; introduction of market management methods - management and marketing; state regulation of the agricultural economy through more efficient use of price levers, financial and credit and tax systems; development of markets for agricultural products, material and technical resources and services; intensification and diversification of foreign economic activity, etc.

The priority of the development of the agro-industrial sector of Ukraine and its leading industries makes it possible to provide the population with foodstuffs, industry with raw materials, and foreign trade with export goods.

## **1 Conceptual principles of farm lending strategy**

Under modern conditions of development of commodity production, when it became general, the state of economic relations not only within one country, but all over the world has become very complicated, it is even impossible to imagine without credit. After all, as a result of the specialization of producers in the manufacture of certain goods and the resulting cooperation, social production has become a kind of huge closed chain of closely related commodity-money relations – producers, sellers, consumers. Therefore, a breach in any of these links may lead to the fact that it does not settle its obligations to other links. As a result, the normal exchange of goods between individual participants in commodity-money relations may be disrupted.

All this can have a very negative impact on the financial and economic activities of a number of participants in social reproduction. Therefore, society must have such economic instruments at its disposal, which could be used to prevent disruptions in the field of social reproduction, one of which is credit. Thus, trade is the ground where credit relations arise. Intensifies the mutual dependence and trust of market participants in the formation of stable, unshakable and multifaceted exchange relations between the counterparties of trade with the active service of their banks. However, more and more often the sale of goods on credit.

An exceptional role in the theory of credit belongs to the description of its functions. The formulation of the number of functions and their interpretation depends on the influence of a significant number of factors.

In general, a function is, first, a role performed by a subject or object in a particular field of activity. We can say that a function is what the subject or object is responsible for in this case.

There are different points of view in the scientific literature on this subject. Today in financial science there are many different opinions about the number and content of credit functions. Thus, the functions of credit include redistributive, issuance, incentive, control functions, the function of replacing cash with non-cash, the function of creating additional purchasing power, the function of capitalization of free



cash income, the function of accelerating the concentration and centralization of capital and more. This list can be continued, but from a methodological point of view, the definition of the functions of any economic category should be carried out in such a way that each of the selected functions is inherent in different manifestations of this category. However, in the case of commercial and government lending, most of the above functions are not performed.

Due to the diversity of the category of credit, due to the extremely large variety of creditors and borrowers who have different goals, it is difficult to distinguish the main functions of credit. From a theoretical point of view, the function of credit should be considered, based not only on the principle of inherent in all forms of credit, but also on the significant impact of credit on money circulation in the modern economy. In connection with this approach, we distinguish the following functions of credit: redistributive function, the function of creating credit documents, the incentive function. These three functions are really inherent in all forms of credit relations.

The essence of the redistributive function is that the temporarily free funds of some economic entities become credit resources for others.

Sources of temporarily free funds can be both savings of the population and funds of trade and manufacturing enterprises that accumulate in bank accounts, own funds of financial and credit institutions, funds in budget accounts.

Thus, this function of credit is to direct temporarily free funds of economic entities with minimal delay directly or indirectly to those economic entities that in a certain period of time need credit resources. As a rule, there are three main forms of redistribution of temporarily free funds:

- territorial (regional) - temporarily free funds are formed in one region and used in another;

- sectoral - temporarily free funds of economic entities of one industry become credit resources for economic entities of another industry. As a rule, credit resources are redistributed in favor of industries that have above-average profitability;

- temporary - as a rule, this form of redistribution of temporarily free funds is typical for credit relations with the participation of financial and credit intermediaries,

which have the ability to transform short-term investments into long-term ones.

Thus, the redistributive function of credit allows the transfer of capital from one economic entity to another.

The function of creating credit documents are standard documents that record the clarity of credit relations. Such credit documents are banknotes, bills, checks, credit cards, bonds, mortgages, mortgage certificates, credit and deposit agreements, etc. The most interesting feature of credit - to create credit money, and above all the issuance of banknotes to service the payment turnover. This property should be highlighted, because it is in this function that credit significantly affects the economic life of society, and therefore understanding the mechanism of creating credit money by banks is a prerequisite for the implementation of regulatory influence of the state.

In foreign and domestic literature, this process is called the multiplication of deposits or monetary multiplication, ie the chain transfer of money from one bank to another [1].

The role of credit as an economic category is characterized by specific manifestations of its functions in this socio-economic environment and reflects the result of the functioning of credit relations [2]. Thus, the role of credit is manifested in the concentration of capital in priority areas of economic activity; accelerating the sale of goods; implementation of reorientation of production; ensuring scientific and technological progress and servicing the innovation process; promoting savings in the cost of money circulation and accelerating the circulation of money; economic stabilization, etc.

Another widely recognized function of credit is to replace cash with credit. Considering this function of credit GI Kravtsova notes that by placing money in the bank, the client thus enters into a credit relationship with him and creates conditions for the replacement of cash in circulation by credit transactions in the form of bank accounts [2]. This makes it possible to provide a loan in non-cash form and the development of non-cash payments, which are essentially credit transactions, as the terms of shipment and payment, as a rule, do not coincide [2]. In this regard, MI Savluk notes that the function of credit realized in the monetary sphere is that credit provides

the best prerequisites for effective regulation of money circulation in the interests of full satisfaction of the economy's needs in means of payment and maintaining sufficient economic stability for money [3].

In addition to the above functions, A. Galchinsky distinguishes the following functions of the loan:

- the function of capitalization of free monetary income, which consists in the accumulation of loan capital through the actual savings of individuals and legal entities and the withdrawal of these real monetary resources from the state of temporary inactivity;

- the function of monetary services of capital circulation in the process of its reproduction implies that due to the credit mechanism the accumulation of temporarily idle capital is carried out and their reinvestment in the structures experiencing a lack of capital;

- the function of accelerating the concentration and centralization of capital through the use of shares and bonds of corporate ownership, which currently has a leading position in the economic system of society;

- credit function as an instrument of macroeconomic regulation of economic processes, reflecting the countercyclical regulation of the market economy, its structural adjustment, deflationary policy, foreign trade lending and the corresponding regulation of the balance of payments [3].

The above functions of the loan are all in essence its economic functions. However, credit as a socio-economic category also performs social functions at the present stage. In this regard, O. Yevtukh singles out the integration-formative function of credit, pointing out that "the more developed financial lending, the more extensive relationships between members of society, the more it is unified and monolithic" [4].

Among the social functions of credit O. Yevtukh singles out the function of mutual assistance. Its nature is based on the principle of the use of value, the essence of which is the desire and desire of man to provide benefits to others. The scientist notes that this provision should be made on market terms, taking into account the law of equivalence of money, which ensures the growth of wealth of all participants in the

credit process [4].

Finally, O. Yevtukh singles out the spiritual function of credit. In this regard, the scientist notes that the formation of norms of trust and responsibility in societies with economies in transition - is extremely important and vital for them. It should be studied not only by politicians and economists, but also by educators, educators and, of course, scientists [4].

Also, one of the main functions of credit is the function of wealth development [5]. Credit develops a person's abilities and aspirations to effectively use the benefits that are the source of society's wealth. The redistributive and capital-generating functions of credit, about which much has been written, are derived from the function of wealth. These functions best reflect the nature of credit relations and their relationship with the law of value [4].

Yevtukh OT notes the following very important point: „... the most important socio-economic function of credit is its integration-forming function. The functions of credit can also be considered its ability to create a so-called synergy effect. In the conditions of people's trust in organizations, enterprises and society, the latter have the opportunity to obtain relatively large assets with relatively small own funds. This phenomenon is similar to the synergy effect. The effect of synergy is higher the more members of society enter into trusting and responsible relationships. At the same time, the greatest result in the increase in value is formed where the quantitative and qualitative indicators of the loan, the derivative of which is the synergy ratio, are higher. The next function of credit is the function of mutual assistance. Participants in credit relations help each other to increase the value they have. The fundamental functioning of this function is based on the dominant use of value. This principle is the desire and desire of man to give benefits to other people. Also, one of the most important functions of credit is spiritual function. Such a function of credit, under the conditions of financial synchronization of trust and responsible relations in society, may not work if the priority of lending norms over its standards is violated ”[5].

Thus, the analysis of credit functions showed that in fact, in a broad sense, all economic functions of credit are reduced to efficient and effective use of financial

resources, and social functions – to achieve unity in society, mutual assistance, ie certain organizational goals. If you look closely at these functions, you can see that they are very close to the functions of management (management). After all, as noted by the authors of "Fundamentals of Management", "management is a set of functions aimed at efficient and effective use of resources to achieve certain organizational goals" [6].

To ensure the processes of bank credit risk management, the need for monitoring and proper information support is sufficiently justified.

Monitoring is:

- 1) constant monitoring of any process in order to determine its compliance with the desired result or initial assumptions;
- 2) observation, assessment and forecast of the environment in connection with economic activity [3].

The organization of monitoring of bank credit risk management should be based on a set of such principles (Table 1).

The decisive tasks of credit monitoring are:

- assessment of the quality of loans that form the loan portfolio, including a continuous process of research of the client's financial condition, its creditworthiness, areas of use of funds throughout the loan agreement, the availability of collateral;
- determining the structure of the portfolio (classification of the portfolio by quality) and evaluation of this structure on the basis of differentiated control over different loans in the dynamics;
- determining a sufficient amount of reserves to cover losses on loans based on a structured analysis of the loan portfolio.

Table 1. Dominants of the organization of banking management monitoring credit risks

DOMINANTS	THE VALUE OF THE DOMINANT
Systematic	A set of a significant number of subsystems and elements of banking with a high degree of interconnection
Target direction	Improving the efficiency and quality of management decisions in the lending process
Complexity	Monitoring of certain areas and operations of banking must be carried out taking into account their relationship. The sequence of solving the whole set of monitoring tasks in each of its directions is necessary, starting with the observation of the process and ending with the development of special characteristics and recommendations.
Structural and logical sequence	Execution of all stages (collection of necessary information, its analysis and evaluation of results) for all elements of the studied monitoring system
Periodicity and continuity of observations	The need for constant monitoring of changes in the development of lending processes, analysis of information about changes that have occurred at regular intervals
Comparative characteristics of selected indicators	Obtaining objective monitoring results involves the use as a database of a system of comparable indicators in absolute and relative terms

The information obtained in the process of credit monitoring is used to identify highly profitable and at the same time low-risk areas in accordance with the current market situation, select priority segments of the credit market by retrospective analysis of risk of different lending activities in previous periods. goals and priorities of the bank.

Based on the obtained data of monitoring the external environment and assessing the strategic potential of the bank, the prospects for its development are determined. In order to substantiate the strategic decisions, it is advisable to assess the strengths and vulnerabilities, the potential of the credit institution, as well as financial stability and efficiency. After substantiation of development prospects, a credit strategy is formed, which provides for the gradual structuring of this process, comparison of the dynamics and prospects of capacity development, as well as the selection, implementation and evaluation of the strategy. Based on the monitoring results, it is necessary to develop long-term tasks for the development of the studied system and key means of their implementation.

The complexity and variety of tasks that are solved through a credit monitoring system require the creation of a "treasury" of data and knowledge needed to make

decisions in the current circumstances. Carriers of this knowledge, as a rule, are unsystematic documents and employees, whose status may change, which will gradually lead to loss of information. It is worth noting that the solution of complex problems with the participation of many people is inevitably delayed due to the loading of their simultaneous (parallel) work; various personal preferences, etc. The presence of a knowledge base can significantly increase the efficiency and soundness of strategic and tactical decisions.

An effective loan portfolio and risk management system requires the creation of a reliable information system based on a systematic approach to data analysis, designed to simplify the decision-making process. It should be emphasized that this is a system that is something more than traditional (usual) banking systems (provides credit accounting, accrual of interest, accounting for payments and transfer of information to the general ledger) used in commercial lending. The information system is designed to assist management in monitoring the process of achieving the goals set during the planning of the loan portfolio. Information system - a reporting system that allows the manager to solve the following tasks:

1. Determine the probability that the loan portfolio management will provide predictable results that guarantee the required level of profitability.
2. It is important to identify the need to adjust the loan portfolio.
3. Determine whether the portfolio corresponds to the credit philosophy, culture and other areas of portfolio planning.
4. Influence the model of behavior of ordinary employees of the bank.

Note that the information systems used in commercial lending are characterized by a number of problems. In this case, we investigated the main problematic issues related to farms (Table 2).

Reducing credit risks also means increasing the bank's economic security. In turn, ensuring the economic security of the bank leads, in particular, to minimize credit risks. In this case we mean a set of legal, organizational and managerial, special, socio-psychological, regime, technical, preventive and advocacy measures aimed at the quality of protection of the bank from external and internal threats to its security.

We have singled out the most important tasks of the bank's economic security system, which are focused on reducing banking, in particular, credit, risks:

protection of legal rights and interests of the bank as a subject of economic activity, as well as its employees;

1. collection, analysis, evaluation and forecasting of data characterizing the situation around the bank and within it, including - the study of partners, customers and competitors;

2. timely detection of possible interest in the bank and its employees by forces or persons posing a source of security threat;

3. prevention of intrusion into the bank of representatives of economic espionage, organized crime and some persons with illegal intentions;

Table 2. List of factors influencing the model of behavior of ordinary employees of the bank in the process of lending to farms \*

MAIN PROBLEMS THAT APPEAR IN THE PROCEDURE OF LENDING FARMS
- a significant amount of data with a small amount of useful information;
- lack of constant systematic reporting;
- the presence of omissions, inaccuracies (for example, discrepancies in the final data);
- lack of a unified approach to data presentation (data are received unsystematically and disordered);
- lack of a body that could promptly assess all data and take the necessary measures;
- the information provided does not affect the pattern of behavior;
- no general terminology;
- there is no periodic analysis in order to dispose of reports that have lost their relevance;
- superficial (incomplete) financial analysis of borrowers;
- acceptance of insufficiently liquid or illiquid property as collateral;
- incorrect assessment (overstatement) of the mortgaged property;
- lack of control over the use of loans;
- inability to effectively control the credit process;
- insufficient quality control over the documentation and legally competent execution of loans and agreements on them;
- insufficient verification or lack of legal capacity of borrowers;
- no restrictions on the concentration of risks in the bank's loan portfolio;
- lack or insufficient development of the bank's credit policy;
- Excessive centralization or decentralization of the loan portfolio management.

\* Source: the author's own work.

4. counteraction to technical intrusion into the bank with criminal intent; prevention and cessation of possible illegal and other negative activities of the bank's employees to the detriment of its security;

5. protection of financial and material values, as well as information that



constitutes a trade secret of the bank;

6. obtaining the necessary information for the development of the bank's management of optimal management decisions on the strategy and tactics of financial and other activities;

7. physical and technical protection of buildings, structures, territory and vehicles of the bank;

8. formation in the media, partners and customers of a positive opinion of the bank, which contributes to the implementation of its business plans;

9. creation of conditions for compensation of material and moral damage caused to the bank and its employees by illegal actions of organizations and individuals;

10. control over the effectiveness of the security system.

Thus, the bank's economic security system is most closely linked to the system of bank risk management (especially credit) and the effectiveness of its operation can be measured by the probability of adverse events for the bank.

To date, the quality of risk assessment in most Ukrainian banks does not meet international approaches and standards. The primary factors hindering the diagnosis of risks by credit institutions are: underdeveloped market economy and finance; the state of legislation, which in a number of parameters does not meet the legal norms adopted in developed countries; insufficient level of corporate culture and quality of management, including in banks, as well as other factors.

It is worth noting that the riskiness of the banking business is an objective factor that can not be completely eliminated in the process of improving banking technology. Adequate structuring, classification delimitation and ranking (ascending or descending) of banking risks are necessary for effective banking risk management.

Based on the classification given in the first section of the dissertation, it is much easier to create an information database with high performance and scalability of objective-oriented technology based on combining data and procedures within the concept of "object" in contrast to the common structural an approach in which data and procedures are defined and implemented separately.

High productivity of both internal and interbank management is achieved due to

the optimized data model of the banking industry: availability of metadata (connection descriptions and forms of data presentation), a set of database management tools, unlimited number of operational and external data sources presented in general database information banking architecture.

The decision-making rules for a modern risk management information system are mainly based on the calculation of risk value indicators for market risks, assessment of current and future risks, conducting scenario analysis and testing the portfolio for resilience. To implement these functions in banking structures, the main obstacle is the aggregation of large data sets in terms of decentralization of the organizational structure of the studied bank.

It should be noted that the architecture of the risk management information system can be both decentralized and centralized. That is, the source data can be distributed to the appropriate departments or collected and organized in a single database.

When calculating risk indicators, the system can refer either to the primary data or use intermediate estimates calculated in different departments, and conduct their final processing. The centralized system that we propose for implementation in PJSC CB PrivatBank provides for the creation of certain data carriers in the bank and has several priority features. It allows those responsible for assessing market risks to control the correctness of the calculation process itself. This circumstance is especially important if risk assessments are used in determining the amount of remuneration for individual traders and units as a whole. Centralized architecture, which includes a single database of primary positions, makes it easier to move to more advanced and resource-intensive methods of calculating risks.

Centralized systems are more flexible and adapted to possible changes in information needs and can be used not only for risk management, but also for other purposes.

The decentralized approach has a number of advantages. It does not require duplication of position information and valuation algorithms in a centralized database, which can be particularly inconvenient for complex derivatives. Accordingly, there are

no difficulties with the creation of new products at the level of individual units. However, it should be noted that a decentralized architecture is only possible at the macro level when assessing the aggregate market risk of the banking system by the Central Bank, which summarizes the assessments of individual banks to calculate a single risk indicator.

Another significant problem is the methodological unity of risk assessment models in all divisions of the bank. Thus, when calculating the value of the risk value, the set of market factors must be universal for all units, so that their assessment and data are comparable. Frequent reassessment of portfolio risks can be quite burdensome, especially if a significant share of the portfolio is occupied by complex derivative financial instruments. In order to reduce the time of calculations, methods of approximate evaluation of such tools are used, and the calculations themselves are performed on distributed multiprocessor systems, which leads to increased costs for hardware and software.

The process of market risk management involves the creation of incentives to reduce losses and risk, based on the collection of information in all real and potential costs of covering losses and the formation of a system of fines, penalties, rewards. Implementation of systematic and consistent monitoring, the effectiveness of various risk control programs should also include the collection and analysis of information about system failures and adverse events in the process of their operation.

Thus, the problem of risk management cannot be effectively solved by a set of individual measures and services. This task is solved exclusively by the introduction of integrated risk management information technology, which affects all aspects of banking. The principle that no business decision can be made without awareness of the degree of risk must be embedded in the spring of technology.

The concept of creating a risk management system is based on the following concepts:

and. the risk management system is the basis for the management of banking activities, which requires a long transition period, but requires a significant increase in the professional level of banking staff;

b. the risk management system requires individual "adjustment" for each bank;

in. the risk management system should provide a real increase in the value of the bank.

Implementation of the proposed concept in PJSC CB PrivatBank requires the solution of certain tasks:

1. Creating competitive advantages: integration of risk management in planning and strategic management; application of a more stringent risk assessment process; optimization of the process of distribution of capital and resources; correlation of risks with the main activities of the bank; conscious acceptance of risks unacceptable by competitors;

2. Optimization of risk management costs: adequate risk assessment of transactions; comprehensive decisions on risk transfer and acceptance; simplification of the risk control structure;

3. Improving the efficiency of the banking business in PJSC CB PrivatBank: forecasting and identifying risks inherent in the established objectives; quantitative measurement of the effects of different strategies; developing a deeper understanding of the risks that affect profits and capital; increasing the transparency of risks for internal and external stakeholders; confidence as a result of an ongoing risk assessment process.

Thus, the risk management system is inextricably linked to management reporting, methods and procedures for its preparation, and after all, with information systems used by banks.

Our approach allows us to combine technology, provides real results of bank management, and the human factor that ensures the success of transformations.

In the process of implementation of the risk management information system in PJSC CB PrivatBank it is necessary to take into account the following:

1. The range of methods and forms of calculating banking risks is constantly growing and changing;

2. Systems used for data storage, accounting, front office, reporting, etc. implemented at different times, running on different operating systems, databases and

platforms. The required level of “standardization” with a residual level of flexibility capable of responding to further changes should be provided by the database of the banking information space;

3. Consolidation of information at one level implies that all units involved in the process should be managed in an integrated and coherent manner;

4. PJSC CB PrivatBank must approve its own standards of risk assessment and control, based on regulatory requirements of the NBU;

5. The risk management system must be organizationally separate;

6. The introduction of a risk management system using modern information technology leads to the restructuring of the management culture, which requires political will, coming from the bank's management and carried out taking into account the characteristics of the bank.

Thus, the implementation of the risk management system in the practice of the bank should be implemented through a systematic approach, taking into account the peculiarities of the bank. The application of the recommendations proposed in the dissertation research will help the management of PJSC CB PrivatBank to reach a qualitatively new level of banking activity.

Modern theory and practice of risk management considers risks not only as an undesirable sign of uncertainty of future events, but also as a source of positive, profitable opportunities, ie distinguish two types of risks: risk-positive and risk-negative. The first should be avoided, and the second should be carefully agreed, because it is a carrier of potential positive results. Thus, risk management is not only to avoid it (which is not possible), but to change the environment and goals of the system in order to direct the overall propensity from negative risks to positive risks. Because the set of risks is a system, avoiding one risk can increase the propensity to another, accepting positive risk can lead to negative risk. Therefore, an integrated, holistic management of the organization's risk system is needed [7].

If we consider risk as a three-dimensional model (risk as a threat, risk as uncertainty, risk as an opportunity), it needs not minimization, but optimization through constant diagnosis and a permanent system of management methods [7].

Let's identify three main areas of risk management in the farm.

1. Avoiding risk. This direction means refusing to implement news that is closely related to risk. This decision is made in the following situations: the degree of eligible costs and additional costs associated with reducing the risk or transferring the risk to a third party; the level of expected losses far exceeds the expected profit. A radical and simple direction in the risk management system is the process of risk avoidance and it helps to prevent possible losses, losses and uncertainties. However, avoiding risk usually means giving up future profits for the farmer. Therefore, if you unreasonably refuse risk-based measures, you will lose out on unused chances. In addition, it should be borne in mind that avoiding one type of risk can lead to others.

2. Reducing the degree of risk. It involves reducing the probability of cost. Depending on the specific nature and type of activity, there are various ways to reduce the degree of risk.

3. Risk acceptance. With this decision, the farmer agrees to all or part of the risk and to cover possible losses with his own funds [7].

Practice shows that many elements and tools of risk management of the credit institution, whose main customers are agricultural producers (including our studied farms) - industries with relatively low efficiency, but high economic and social content for society, special attention should be paid to the formation and implementation of the optimal loan portfolio. As you know, portfolio decisions relate to the functioning and development of the bank as a whole. The main purpose of the portfolio strategy is to choose those areas (areas) in which to direct credit investments. The main points of such a strategy include the allocation of resources based on portfolio analysis, diversification of banking activities, in order to reduce risk and obtain synergies. The developed variant at strategic selection should in the general case meet the following requirements:

- ensure the implementation of state policy and the NBU policy on lending to the development of the agro-industrial complex of Ukraine;

- be cost-effective, ie ensure the achievement of strategic goals, with the lowest costs and maximum income;

- minimize the risks associated with the implementation of the bank's new strategic choice.

The bank's loan portfolio should be created on the basis of marketing, assessing the process of market development, possible own market share and prospective customers. The bank must have a clear marketing approach to each element of the business. The following manner options are allowed:

- Growth: active and proactive marketing with a possible reduction in interest rates to increase market share;

- Content: focus on increasing the volume of services provided to existing customers and attracting as many new customers that will maintain market share;

- Reduction: focus on increasing the volume of services provided to trusted and reliable customers, reducing the volume of services or terminating relationships with marginalized customers, reducing overall market share. The most experienced customers are retained;

- Withdrawal: business development stops, vigorous measures are taken to reduce attendance.

To develop a bank's credit strategy, it is important to assess the existing loan portfolio by the structure of its customers.

The loan portfolio of banks in 2021 will remain with a troubled "beard". During the end of 2019 and throughout 2020, due to the restructuring, benefits provided, conversion from dollar to hryvnia, changes in schedules, some problem loans have received the status of workers and to some extent normally reflected in bank balance sheets, ie money is returned in installments or on schedule. There are so-called hopeless assets that are frozen today and it is difficult to do anything about them. Unfortunately, in 2021 they cannot be made more liquid. There are no necessary preconditions for this today: the stock and mortgage markets are not recovering. All these parameters, which were basic in the pre-crisis period, when banks were actively issuing loans, now can not be decisive due to the lack of such.

Therefore, in 2021, some banks that did not have time to form reserves for bad loans, will continue to do so. Others may sell these assets at a discount, but there will

be no revolution in this area in the banking system. The loan portfolio of banks will remain with the "beard" that grew during the crisis. Banks will probably be able to improve the overall quality of their loan portfolios only through new loans, which will be issued more cautiously and with a more balanced approach to risk assessment [8].

It is noteworthy that despite the fact that in 2019 the situation with lending to small farms has changed significantly, which include personal farms and farms, the share of their coverage is still insignificant. Obviously, this segment of customers - rural producers can and will grow quite significantly.

It is also necessary to clarify the situation for credit risk assessment for selected groups of customers. It is necessary to explain the contradiction that arose at first glance: low-efficiency agricultural producers have a low level of credit risk, and successful processing and service enterprises of the agro-industrial complex - medium. This paradoxical situation is due to several reasons. The main one is that all agricultural producers received loans under the priority national agro-industrial development project. As for the national project of agro-industrial complex development, it was adopted as an emergency measure to return to agriculture the former production volumes, when in the 90s the agricultural complex was given insufficient attention, as a result of which its potential decreased.

The main purpose of reforming the agri-food complex as a component of Ukraine's economy is to transform it into a highly efficient, competitive in domestic and foreign markets sector of the state economy and a strong economic basis for socio-economic development of Ukrainian villages.

Based on the above, it is advisable to adopt the Decree of the President of Ukraine in 2010 "On approval of the National Doctrine of reform and development of the agri-food complex of Ukraine." The draft National Doctrine of Agro-Food Reform was developed to implement the Program of Economic Reforms of President of Ukraine Viktor Yanukovich, "Wealthy Society, Competitive Economy, Efficient State" and the Program of the Cabinet of Ministers of Ukraine.

The need to develop and adopt the doctrine as a subsidiary source of law is due to the fact that during the years of independence of Ukraine in Ukrainian society as a



whole, in central and local government, economic management has not developed a holistic, comprehensive, sound and strategically balanced vision of role and place agri-food complex in the country's economy and ways of its further development.

The doctrine proclaims fundamentally new tasks assigned to the agri-food complex, as a sector of the economy to ensure food security and create a solid economic foundation for the livelihood of the Ukrainian countryside and its inhabitants, as well as reforms to unconditionally fulfill these tasks.

To make Ukraine one of the most agriculturally developed countries in the world, it is necessary to carry out organizational, economic, technical and technological modernization of the agri-food complex, aimed at ensuring its competitiveness, social orientation, environmental friendliness, equal participation of agriculture in regulatory and distributive actions.

To achieve this goal, the doctrine provides for reforms in the following areas:

1. Reforming intersectoral and intra-sectoral economic relations, aimed at ensuring equal economic conditions and parity in relations.
2. Completion of land reform aimed at the development of socially oriented market land relations, the inclusion of land value in economic turnover, rational use of agricultural land, ensuring their agri-environmental protection.
3. Reforming the organization of agricultural production, aimed at supporting the formation and operation of non-profit associations of landowners for joint cultivation and marketing, development of competitive integration agro-industrial associations, mainly on the basis of cooperative management.
4. Transfer of agriculture to the innovation and investment model of development by creating a system of motivation of business entities to implement science-intensive technologies, the formation of agro-technological parks, support for international cooperation in the field of innovation.
5. Technical and technological modernization of the material and technical base of agro-industrial production, aimed at high-tech and technological re-equipment of agricultural production and agro-technical service.
6. Development of agricultural market infrastructure aimed at the development

of exchange and other forms of wholesale trade with transparent mechanisms for pricing of agricultural products, the formation of optimal sales channels and information and communication support of market operators.

7. Formation of a favorable financial and credit climate with the active participation of the state in the financial market to ensure the expanded reproduction and innovative development of agriculture as a sector of the economy with slow capital turnover. Establishment of a fund to support the development of the Ukrainian countryside through the introduction of a 1% fee on the sale of all goods and services in the domestic market.

8. Reforming the management system of the agricultural sector, aimed at a rational combination of territorial - self-governing and sectoral management systems for integrated development of agriculture and rural areas.

9. Reform of agricultural science, education and agricultural advisory, aimed at solving the priority tasks of innovative development of agricultural production and continuous higher professional education of agricultural workers.

10. Creating conditions for increasing employment and income of members of rural households by promoting the diversification of agricultural production, development of rural industries, restoration of industrial, social and other spheres of employment. Preservation and development of family-family forms of entrepreneurship - the basis of rural life, agricultural culture and traditional skills and knowledge.

11. Reforming the institutional framework for rural development through the definition of functions, levers of economic influence and responsibilities of ministries and agencies, strengthening the role of rural communities and their inter-village associations in creating a favorable environment for people in rural areas [8].

Thus, given the sustainability of state support for agricultural producers and after the planned activities of the priority national project for the development of agriculture, any bank should increase its clientele at the expense of agribusiness entities. The forecast of volumes and dynamics of credit investments in the development of agriculture must be made on the basis of indicators of economic growth of agricultural

production.

Forecasting the development of agriculture involves the study of alternatives to the functioning of agriculture in different environmental circumstances and different strategies for its regulation. In a market economy, most forecasts of the development of agro-industrial complexes of the regions are carried out in the coordination of the forecast of food consumption by the population and the forecast of their production. Potential demand for food products serves as a starting point for forecasting trends in the development of agriculture and its individual industries, the development of short-, medium- and long-term forecasts. Thus, for the forecast in dynamics it is expedient to use methods of econometric modeling.

For the conditions of the regional agrarian economy with its focus on self-sufficiency of food in the population, it is advisable to develop the concept of strategic development of the regional agro-industrial complex to start with the forecast of agricultural consumption. This is the basis for substantiating the volume of its production and development strategy of the entire agro-industrial complex of the region.

When substantiating the strategy for the development of livestock industries, it is appropriate to focus on increasing animal productivity, the use of resource-saving technologies and expanded reproduction of livestock on farms.

We are of the opinion that in order to solve the problems of livestock development on farms, the following measures should be taken: to stop the reduction of cattle by improving the mechanism for providing budget subsidies; to ensure a gradual increase in the number of highly productive dairy cows on farms and bring it to 1.7-1.9 million in 2025 by own reproduction and organization of the purchase of repair heifers outside Ukraine; to create conditions for better provision of agricultural producers, first of all personal peasant and farm farms, with breeding young animals; to promote the development of the feed industry on a cooperative basis and the creation of cultivated pastures; to expand the network of training of livestock operators of various profiles, to improve the skills and improve the mechanism of certification of specialists and employees of the industry.

However, it is worth emphasizing the need for organizational consolidated efforts of managers and creditors of the bank and managers and specialists of the Department of Agriculture and municipal administrations, aimed at selecting agricultural producers - recipients of loans in terms of their solvency and ability to develop production. Increasing the volume of lending to agriculture in our country became possible after the adoption of the Cabinet of Ministers Resolution "On approval of the State target program for the development of Ukrainian villages for the period up to 2025."

According to this normative document, the main directions of development of the credit system of the agricultural sector are the formation of credit infrastructure:

- promoting the creation of a cooperative credit system aimed at serving the agricultural market, small and medium-sized businesses in rural areas;

- expansion of the functions of the Farm Support Fund for microcredit of personal farms and their associations;

- stimulating the development of rural credit unions and their associations;

improvement of credit mechanisms:

1. introduction of mortgage transactions with the use of warehouse certificates, mortgage and mortgage bonds;

2. increasing guarantees of loan repayment by creating a system of state registration of real estate, including land, development of valuation and insurance activities, use of collateral, improving the mechanism of insurance of financial risks of banks;

3. improvement of the mechanism of state support of agro-industrial enterprises through the mechanism of reduction of interest rates for the use of loans;

4. promoting the development of a network of credit support for the sale of agricultural products under forward and futures contracts, factoring operations using promissory notes;

5. formation of the system of registration of debt obligations and pledges.

In our opinion, it is especially important to work on lending to farms. We investigated that last year the following procedure was developed for the formation of

documents for budget subsidies to reimburse the cost of paying interest on loans to farms:

1. The bank within five days after the first repayment of interest for the first month after the loan sends the management of the farm the following documents: application for grant assistance indicating the current account of the business entity opened with the bank to receive a grant; extract from the relevant register of the borrower; certified by the borrower and the bank a copy of the loan agreement, an extract from the loan account of the borrower on the loan, the loan repayment schedule and payment of interest on the loan.

2. The management of the farm verifies the documents received from the bank, registers the application for grants and within five days (from the date of registration) sends the bank and the borrower a written notice of acceptance of the application for consideration or refusal to accept it stating the reason for refusal.

3. The bank submits to the management of the farm the following set of documents for the transfer of subsidy to the current account of the borrower, opened to him in the bank to receive subsidies: calculation of the subsidy in duplicate per month before the first day of each month; documents confirming the partial use of the loan - as the loan is used.

4. The management of the farm shall transfer the amount of subsidy to the current account of the borrower, specified in the application for a subsidy, within three days after receipt of funds from the relevant budget.

We are convinced that an important component of this approach is the development and implementation of national and regional programs for the development of bank lending to farms. This scientific approach to the concept of bank lending to farms in a particular area will allow to more successfully identify a set of factors that affect the effectiveness of bank lending to farms and identify the main participants in bank lending, based on the partnership interests of farms and banks.

Future intensive work on lending to farms should be improved and focused not only on obtaining but also on timely repayment of loans. District and regional councils and village heads need to be more widely involved in the system of interaction at

different stages (when considering the application and repaying the loan). The reasons for the formation of problem loans can occur both at the stage of issuing a loan, and after, at the stage of maintenance. The study of lending practice allowed the author to develop a model of the relationship of banking institutions with farms.

This model takes into account both the need for a fairly strict formalization of the lending process, and the possibility of a personal approach to the client. Analysis of the practice of lending to farms in banking institutions of Vinnytsia (which included a survey of employees of relevant departments showed that the most common violations at the stage of issuing loans of the following nature:

- insufficiently strict attitude to the borrower;
- unprofessional analysis of the borrower's financial condition;
- poor structuring of the loan, as a consequence of insufficient familiarity of the loan officer with the needs of the farm, the specifics of the industry;
- insufficient loan security;
- errors in documenting the loan, etc.

The reasons for this, in our opinion, are the lack of professionalism of the relevant departments of the bank, as well as the lack of serious disciplinary and material responsibility for personal miscalculations in the lending process.

A significant element of the developed model is the credit risk monitoring carried out at the stage of loan support, which plays an important role in ensuring loan repayment. Practice shows that poor control over the borrower during the maintenance of the loan can also be the cause of problem loans.

In our opinion, since the development of the agro-industrial complex within the framework of such legislative acts as the Decree of the President of Ukraine "On Approval of the National Doctrine of Reform and Development of the Agro-Food Complex of Ukraine" and the Resolution "On Approval of the State Target Program for Ukrainian Rural Development the only promising programs for lending to farms, we consider it necessary to justify the long-term structure of the loan portfolio.

Experts predict that in 2022 Ukrainian banks will issue more loans.

The growth of the loan portfolio of Ukrainian banks in 2022 will be about 10%,

and in 2023 may accelerate to 15-20%. This forecast was voiced by senior credit expert of the international rating agency Moody's Investors Service Yaroslav Sovgira. „, For 2022, our baseline forecast (loan portfolio growth) is 10%. Maybe there will be more, ”he said. It will be recalled that according to the National Bank of Ukraine, as of January 1, 2022, the volume of loans granted by banks to companies and individuals amounted to UAH 763.8 billion. According to a representative of Moody's, the increase in the loan portfolio may lead to a slight decrease in the share of problem loans in total loans. However, according to Sovgir, a reduction in the volume of problem loans is not expected yet. According to Moody's, the decline in interest income of banks is partially offset by lower cost of borrowing. In addition, a fairly high margin is expected to be maintained.

It should also be noted that the level of the bank's credit rating, in general, depends on a number of factors, including the growth of long-term financing by raising funds on subordinated debt, the expected increase in share capital, balance of assets and liabilities. repayment, diversification of the loan portfolio by type of economic activity, improvement of performance indicators and the presence of an extensive regional network, which helps to maintain the customer base and maintain a competitive position.

Both the rapid growth of loans and the specific features of borrowers urgently require increased attention to credit risk management. Particular attention should be paid to the development of collateral lending technology and the repurchase process. Thus, consider the algorithm for providing credit to the farm on the security of purchased agricultural machinery and / or equipment and the process of repurchase:

I. Lending secured by the purchase of machinery and / or equipment:

1. Consideration and discussion of the application for a loan.
2. Upon adoption of a positive decision, the borrower receives from the seller a written notice of the availability of equipment to be purchased. During the inspection, the parties (seller and buyer) sign an act of transfer of ownership.
3. Signing a loan agreement, transferring funds to the seller, signing an act of transfer of machinery and / or equipment.

4. Registration of self-propelled vehicles in the relevant authorities.

5. Interaction of the borrower, the bank and the management of the farm to receive budget subsidies for this item.

II. The mechanism of repurchase by the seller of the equipment previously transferred to them to the buyer:

1. Conclusion of the tripartite "Agreement on the method of ensuring the fulfillment of obligations", the main conditions of which are:

- obligation of the buyer, in case of violation of the terms of the loan agreement, to transfer previously purchased from the seller: equipment back to the seller;

- the seller's obligation to pay the bank the balance of the buyer's debt to the bank plus overdue interest on the loan, possible fines and penalties and accept this technique from the buyer.

2. Execution by the buyer of a power of attorney in favor of the bank to carry out actions by the bank to transfer machinery and / or equipment to another owner.

In order to exclude a possible situation in which an unscrupulous borrower operates machinery for a short time (for example, one harvesting season for harvesters) and then artificially creates a situation for repurchase of machinery (for example, suspends interest payments), the bank may apply such actions :

- reduction of the grace period for repayment of the principal debt (minimum 12 months);

- application of monthly periodicity of interest payment;

- increase in the amount of principal repayment at the initial stages of repayment and decrease in the amount as we approach the end of the 5-year maturity;

- application of monthly periodicity of principal repayment.

Therefore, we believe that the implementation of state agricultural policy in the field of providing agricultural producers with available credit resources by participating banks must be accompanied by the construction of a reliable risk management system. It provides for the formation of an integrated information system, development and approval of banking standards for risk assessment and control, based on regulatory principles and rules of the NBU, as well as determines the reconstruction



of management culture.

The analysis of the current standard methodology for assessing creditworthiness allowed us to conclude that it is insufficiently adequate to the existing diversity of agricultural producers. Its detail is proposed in the dissertation and has shown practical applicability.

Studies show that successful risk management is not possible without an appropriate lending strategy. The bank's strategy in the field of agricultural lending cannot be developed without identifying priority dimensions of industry development in the region. Therefore, a methodological approach to developing a strategy that corresponds to the state support of agricultural producers through soft loans is proposed.

A similar approach should be taken with regard to soft loans. The latter should gradually extend not to the sphere of production or form of management, but to those intended for those participating in a program or project. There are possible benefits for projects in priority areas.

As part of the optimization of the credit mechanism in connection with the financial crisis, the problem of debt restructuring is increasing [9]. Conditions of the market economy, the current circumstances of the Ukrainian agri-food sphere, dictate the need to identify debtors who do not have the funds to repay loans, but have preserved good human and production potential for efficient production. For such cases, a special program is required, according to which preferential loans (preferential interest with annual or two-year deferral of payments) are allocated for the developed projects of rehabilitation or modernization of the economy. At the same time, it is advisable to provide for the extension of debt payments. In a number of farms, their partial repayment must be carried out on the basis of accounting for delays in state payments for products sold by enterprises. Under this approach, the detained funds are treated as debt, and the state is subject to requirements similar to the sanctions of banks against debtors. At the expense of this debt loans to farms are repaid [9].

The study showed that the formation of financial resources in the agricultural sector is influenced by the following factors:

- first, in agriculture, the main means of production is land, which is not depreciated and therefore does not participate in the formation of production costs. At the same time, different levels of natural fertility and location contribute to the formation of differentiated profits (rents) in producers;

- secondly, in the composition of fixed assets a significant place is productive and working cattle, the reproduction of which is carried out directly in the industry itself by raising young animals. Depreciation is not accrued on productive livestock, its value is not transferred to the cost of production;

- thirdly, a significant specificity of the industry is self-reproduction. A significant part of the obtained products is not sold outside the farm, but remains here as young animals, fodder, manure for fertilizing fields and so on. Therefore, it is not part of marketable products and does not acquire monetary form, but becomes part of domestic trade;

- fourth, the natural process of growing animals and plants determines the features of the cycle of agricultural producers: its relative slowness, gradual increase in costs, the release of funds from the cycle at the same time, ie in periods of production and sales [10].

The creation of an innovation and technical cluster "Alternative Bioenergy" on the basis of Vinnytsia National Agrarian University can serve as a practical and new direction of organizational cooperation in the field of agro-industrial complex. This formation, in addition to VNAU, includes: Institute of Feed NAAS of Ukraine, research departments of the Institute of Beets NAAS Ukraine, varietal research stations, existing sugar and alcohol plants of Vinnytsia region. Such a model can initiate the formation of a competitive and investment-attractive economy, which provides structural transformation in the agro-industrial complex of the region and improving the quality of life of the population of the territories [11].

In addition, one of the options is to offer compensation to public authorities for lost profits of farms, losses associated with sanctions for late payments, as well as in connection with the regularity of the use of bank loans. In general, lending to the agricultural sector in modern conditions is one of the key ingredients for a stable

economic growth. It includes the activities of the system of cooperative banks, promoting the development of credit unions, the use of the state mechanism for providing soft loans under the interest rate compensation scheme.

## **2 The role of labour resources in promotional competitive capacity of agrarian facilities**

The current state of the market economy of Ukraine is characterized by changes in organizational and economic, legal forms of economic entities, as well as changes in the motives, values of their activities. Improving the efficiency of enterprises in a competitive environment remains an urgent problem today. After all, competition causes the growth of farm profitability. The solution to this problem is directly related to the rational use of human resources, the search for more productive means that can motivate workers to achieve not only their own goals but also the goals of the organization in which they work. People, their skills, education are the most important structural element of the productive forces, which, above all, affect the state of economic development of enterprises and the competitiveness of their products. Successful human resource administration ensures the effective use of the existing potential of the organization, which, in turn, determines the market competitiveness of the organization. No wonder the Nobel laureate Professor J. Galbraith wrote in this regard that people are the common denominator of development.

Recently, managers are increasingly emphasizing that the key to mastering the art of organizational change and achieving stable economic growth is in the rational use of labor resources, the disclosure of their creative energy. At the same time, in real life there is a significant gap between the potential of employees and the degree of its application, due to the weak link between the administration and the human resources department. Therefore, the realization of the defined goals of any enterprise is possible only under the conditions of effective administration of labor resources, namely on the platform of improving their professional skills and encouraging workers to effective professional activity.

In general, in the modern Ukrainian economy, which is characterized by a high rate of transformation, the competitiveness of agricultural holdings is based on the productive use of all types of resources, especially labor. An important component in solving the issue of rational use of human resources is the disclosure of the concept of

labor resources, because without the participation of people it is impossible, in fact, the production itself.

Thus, according to SF Pokropivny, labor resources are a part of the able-bodied population, which according to their age, physical, educational data corresponds to a certain field of activity [12, p. 234].

Other authors agree with this statement, providing the following formulation of the category: labor resources - is the part of the population that by its physical development, mental abilities and knowledge is able to work in the national economy [12, p. 235].

Presentations are almost identical, with some scholars refining the definition, putting the working population first, and some emphasizing that labor is part of the population. If we move on to the second part of the definition, all the authors point out what exactly a person should have to be able to work, in particular: age, physical development, mental abilities, knowledge and other characteristics.

Scientist VI Kramarenko argues that labor resources are a set of able-bodied sex-age, professional groups of the working age population, based on the legal framework and professional qualification level of the employee [13, p. 34].

Note that the working age is provided by a system of state legislation. Its lower limit is people who gain a certain level of physical and mental development (the first 16 years of life). The upper limit is the part of the population whose employment is directly related to work in unfavorable conditions or whose retirement age is 5-10 years earlier than other citizens. These include preferential retirees, who often continue to work and remain in the labor force. Workers older than working age are usually called working retirees, and younger than him - working teenagers.

The labor resources of the country include (Fig. 1):

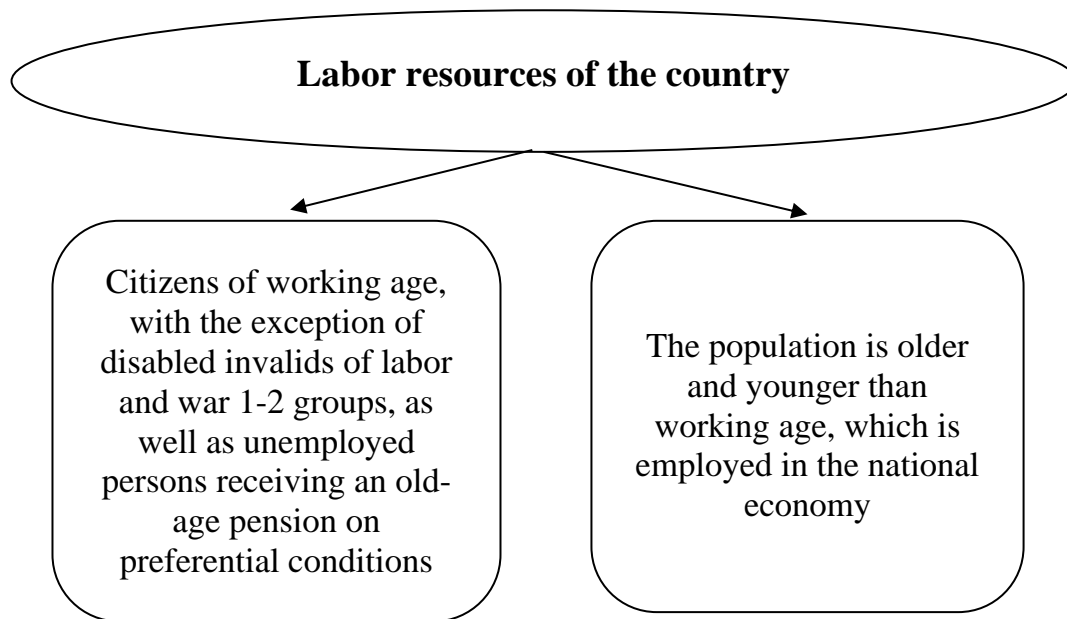


Figure 1. Labor resources of the country

In addition, a distinction should be made between actual labor resources - people who are already working, and potential - those citizens who may be involved in a particular job in the future.

In practice, there are general, professional, limited ability to work and incapacity. General ability to work implies the presence of a person's physical, physiological, age characteristics that determine his ability to work and require special training, and professional - is the ability of an individual to a particular type of work obtained in the process of special education. Disability is the ability to work with a certain limitation. The part of the population that is incapable of work under certain circumstances is incapable of work, taking into account people with special needs [14, p. 24].

Labor resources are identified with such concepts as personnel and personnel of the enterprise. At first glance, these are close in meaning terms, however, they have some differences. Yes, human resources are people who are already working or will be involved in the future. However, the use of human labor does not mean the emergence of staffing needs, as the need for it can be met through the activities of the entrepreneur. And only when people agree to the employer to dispose of their work (under contract or for a fee), they become staff of the organization.

The author TP Makarovska notes that the staff of the enterprise is a set of permanent or temporary workers who have professional training or practical experience [15, p. 67]. In turn, the staff is a part of working citizens, specialists, highly qualified workers and with experience in a particular organization.

So, as we can see, labor resources are a broader concept than staff and personnel, but at the enterprise level the term staff is more often used. This is due to the fact that this definition defines the organizational staff working for hire.

We will note that besides permanent workers of the enterprise able-bodied persons on the basis of the statement of the temporary bilateral labor agreement can be involved on it.

According to the nature of the functions performed, the staff of the enterprise is divided as follows: managers, specialists, employees, workers. A leader is a person who manages the organization, its structural units. The category of specialists includes employees who implement special software, engineering, financial and other functional responsibilities. Employees are represented by personnel who prepare and draw up various documents, accounting and control in the organization, serve the management process. Workers are the personnel directly involved in the mechanism of production of material and technical values, and also the workers who are engaged in repair, relocation of freights, maintenance of material comfort.

According to the principle of participation in production activities, the staff of the organization is classified as follows (Fig. 2):

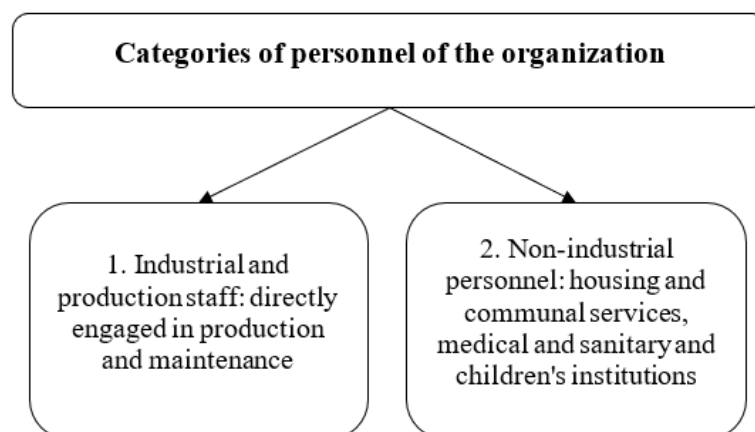


Figure 2. Classification of personnel on the principle of participation in production activities.

With the transition to a market economy, the category of "labor resources" is a thing of the past, but such concepts as economically active and economically passive population are introduced. Economically active citizens are the share of the population absorbed in useful activities, the production of material, social and moral values, which brings income. The available number of such population is related to the number of citizens of working age, and also depends on the ratio of pre-retirement and post-retirement age. Regarding the definition of the category of economically passive population, these are citizens who are cared for by their families and society, namely, persons with disabilities of groups I and II and unemployed persons of working age who receive a pension on preferential terms.

Economically active population is a significant component of the economic potential of the state. Its number is constantly changing, due to many socio-economic and biological factors [16, p. 54-62]. The number and dynamics of labor resources have a significant impact on the economy and production growth: reducing their growth narrows the extent of production, increasing the dependence of economic progress on increasing productivity on the platform of scientific and technological achievements and the formation of highly efficient personnel.

We summarize that labor resources are all citizens working at the enterprise, who invest their work, physical and mental abilities, knowledge, practical skills in production and financial activities to fulfill the mission of the organization and achieve its goals [17, p. 46].

Vocational training in the workplace is one of the most important components of improving its effectiveness. The rate of growth of labor productivity, production volumes and income of the enterprise significantly depends on the extent to which the level of professional training of employees meets the needs of economic development. Professional staff is the basis not only of the functionality of the enterprise, but also its existence. After all, the future of the organization, its profitability and competitiveness depend on the correctness and timeliness of decision-making and rationalization of the process of managing material, financial and other resources.



For an economy that operates in a market economy, the establishment of quality products means a lot. First of all, it is the formation of a high level of image, which leads to a steady positive attitude of customers to the company, its goods and services. In conditions of strong competition, if the economy produces products that have a stable demand, it is provided with a potential range of consumers, covers a growing segment of the domestic market and enters the foreign market, thereby expanding business and increasing its own profits. Thus, the success of the enterprise, its further destiny for survival in a competitive environment depends on the skill and professional qualification level of the staff.

The implementation of a productive strategy for the development of the organization requires the introduction of tools for effective human resource management. Management as a system of enterprise administration includes the following main components: identification of strategies and goals, development of directions for their implementation, control of performance, personnel management.

Analysis of the situation in the management system of agricultural holdings in relation to the formation and development of their human resources shows the presence of a set of negative points. Personnel policy of agricultural enterprises is aimed at reducing labor costs. This state has a negative impact primarily on the characteristics of labor potential, leading to a decrease in its qualification level, and in some cases even - to degradation.

Recruitment at the company depends on working conditions, living, social services. The length of the working day of an agricultural worker is mostly unregulated, about 280-290 days a year. Combined with low wages, this characterizes agricultural work as unattractive, which has a negative impact on the formation of human resources of farms.

Low motivation to work, employers' lack of awareness of the value of human resources, as well as the reduction in the number of young people with higher education in agriculture, together with an unfavorable business environment slows down the positive development of existing farms and new ones.

Personnel policy of employers-farmers, based on the principle of minimizing labor costs, especially in terms of training and retraining of workers determines: the outflow of qualified personnel, low motivation; negative changes in the structure of production; lack of stable employment and social protection programs; lack of management's attention to staff problems, attitude to the employee as part of production technology.

Thus, in the implementation of ineffective personnel management, the organization is unable to achieve success, which is based on incentives. The latter should be aimed at the development of sustainable work motives in staff, as well as their own professional growth through training and retraining. Such actions are an important element of the mechanism of effective personnel policy of the employer, which is focused on providing the production process with skilled labor, in order to further achieve the organization's recognition among consumers, as well as the following goals: reducing unit costs, increasing profitability, profitability and competitiveness.

Therefore, the effective functioning of agricultural enterprises, ensuring their sustainable and competitive development depends primarily on the team of workers, their ability to rationally solve the tasks set before them. All this is related to human resource management, which means the development and improvement of methods of staff mobilization through the efforts of managers, the productive use of the human factor and the development of personnel policy.

An agricultural enterprise, as an object of management, in market conditions of economic relations and competition is a complex multilevel hierarchical system, the main purpose of which is to meet the relevant social needs (services) in the long run and maintain its competitiveness. Competitiveness is characterized as a multifaceted and multilevel definition, which in the process of market relations is an integral indicator of the entity in terms of its compliance with the objective (external to it) economic situation. Competitiveness in a broad sense is the ability of a certain subject to compete, ie to compete and win due to its inherent characteristics [18, p. 115-117].

The competitiveness of products and enterprises is correlated as part and whole. The ability of an organization to compete in a particular product market directly depends on the competitiveness of the product, as well as a set of economic methods of managing the activities of the economy that affect the results of competition.

Competitiveness of the enterprise means its ability to productive economic activity and ensure profitability in a competitive market. In other words, the competitiveness of the organization is an opportunity to ensure the production and sale of competitive products quickly, efficiently, cheaply, in the required amount at a high technological level. As noted by IZ Dolzhansky competitiveness of the economy is the result of its competitive advantages in the general range of management problems, pointing out that the competitiveness of the enterprise is a mirror, which reflects the overall results of almost all staff [19, p. 124].

To stay competitive, an organization must create new advantages at least as fast as its competitors can copy existing ones.

The criteria for assessing the competitiveness of agricultural enterprises include:

"in the production sphere"

- volume of production and its range;
- logistical support;
- production capacity and degree of its use;
- condition of material and technical base;
- production cost;
- organization of production and technological process;
- volume of services;

"in financial activities"

- profitability and use of capital;
- financial condition and solvency;
- the amount and composition of working capital and its application;
- the duration of the operating cycle, its individual elements;
- structure and directions of spending financial resources;
- level and rhythm of dividend payment;

- volume and composition of investments;

"in personnel work"

- provision of labor, because without determining the need for it is impossible to staff units and thus achieve the goal of the enterprise, and in order for the economy to be competitive, the human resources department must select highly qualified workers and, if necessary, increase their competence;

- work efficiency, which can be achieved only through staff motivation. Such incentives include: bonuses, surcharges, allowances, vouchers, treatment, transport, prestige, awards, opportunities for growth, self-improvement, self-realization and more;

- a decent level of wages and social benefits, because everyone who goes to work prefers to have a high salary that meets market demands. If an employee's work is not properly evaluated, he or she may resign and find another job with more decent pay;

- the stability of the staff, carried out by the personnel service is not easy enough, because the staff is not a constant. On the contrary, its quantitative and qualitative composition is constantly changing under the influence of various factors, in particular, the introduction of advanced technologies, suspension of production, development of new products and others. It is important for the company to avoid staff turnover, which costs the organization less, because the available staff is already aware of the situation at the company;

"in commercial activity"

- assortment policy;
- pricing strategy;
- advertising activities;
- organization of economic relations, their stability;
- the nature of commercial agreements and their effectiveness;
- competitiveness of sold products;

"in organizational and managerial activities"

- planning system;
- operational management;

- professional level of managers and specialists;
- rationality of the structure;
- information support, management technologies, etc.

The competitiveness of any organization consists of many components that are equally important and interconnected. If the company is not aware of changes in the external environment in time, it will react to them with a delay, which can lead to undesirable consequences and ultimately to losses. So when an organization tries to compete with others, it must be the first to know what is happening outside of it. The information must be timely, accurate and reliable.

An important role in the competitiveness of the enterprise is its financial condition. After all, if the economy does not have a stable economic position, ie is not solvent, profitable and profitable, it is not able to compete with other enterprises, and vice versa.

The image of the organization, namely the recognition of its products by consumers, establishes a stable position of the organization in the market, which is a determining factor in the struggle for competitiveness, as it gives it the right to pursue a pricing policy in the market.

Also an important component of competitiveness is the product and its promotion, because if the product is high quality, it is in demand among consumers, thus covering more and more market segments.

Over time, everything changes, and so do production technologies. Therefore, the company needs to respond in advance to be able to stay in their positions, namely, it is advisable to constantly improve product quality, to implement scientific and technological progress. After all, it is probable that another farm can produce products at a lower cost, selling goods at a lower price and causing damage to a competitor.

With regard to such a component of competitiveness as production, organizations must first study the market, and the results of this study to determine: which products are in demand, in what quantity should produce (having previously conducted its advertising campaign). Only then can you gain some competitive advantage over other companies.

As we can see, all components of competitiveness require human intervention to achieve this goal. Now highly qualified, motivated, professionally mobile workers are both a major factor in production and a determinant of socio-economic progress at all levels. People, their skills, education are the most important component of the productive forces, which decisively affects the state of socio-economic development of the enterprise and the competitiveness of its products on the market. Thus, one of the most important factors determining the level of competitiveness of the economy is labor resources.

M. Porter, analyzing such factors as the availability of labor and natural resources, protectionism of local producers, the establishment of administration, concluded that none of them, taken individually, does not provide an unambiguous answer to the question of what determines the success or failure of the organization in competition. At the same time, he believes that the key principle of ensuring the competitiveness of the enterprise is the implementation of the mechanism of highly efficient use of labor resources [21, p. 167].

Manpower management is the main function of any organization, because the level of job satisfaction depends on all production, and hence the competitiveness of the economy. The essence of personnel administration is that employees are seen as the main value of the company, which must be developed, stimulated to achieve its strategic goals. It is the skill of staff, their ability to solve complex problems, employees' skills of collective cooperation, understanding of their own responsibility for the quality of products, as well as their knowledge of technology and production organization create high professionalism, which further enhances the competitiveness of the economy.

It is worth noting that the performance of any enterprise, including agricultural, depends on the qualifications of personnel, which can be defined as the degree of readiness of each employee to perform their professional duties. It is from the quality of training that the idea of the organization's ability to compete is formed. Currently, there is an idea that production increasingly depends on the quality of labor, forms of its use, the level of involvement in the affairs of the enterprise, as well as that human

resources are a major factor in increasing the competitiveness of the organization and its development in the future. Thus, if the economy seeks to be competitive, it must consider the person as a valuable individual and a determining factor in achieving organizational goals.

The transition to a market economy and independent entrepreneurship has caused a number of problems in the management of human resources of existing organizations. Human resource management and corporate knowledge, embodied in competitive products, have become a prerequisite for long-term success of farms. 40-45% of corporate knowledge, as a result of special knowledge of the organization's staff, is in the head of each employee, and only the staff depends on how they will be involved for the benefit of the enterprise. The share of the knowledge factor in the price of products can reach 50%, and effectively used experience can increase the income of the organization by 70-80%. Thus, the human factor is the main component of the success or failure of any business [14, p. 15].

Therefore, the human resources management system today plays an extremely important role in the successful operation of farms. However, the probability of capturing more market share and the existence of competitive advantages of the company is determined by the pace of realization of corporate potential of its employees in terms of production, the ability to apply their knowledge to make and implement effective decisions.

The administration of labor resources is characterized by systematic and complete on the platform of systemic solutions to their reproduction. An integrated approach takes into account the relationships between the individual components of the problem to achieve the ultimate goals, identify ways to implement them and the formation of an appropriate management mechanism.

The management system is a balanced structure of interconnected components that differ in functional goals, operate independently and focus on achieving a common goal [20, p. 152].

Personnel administration involves the cooperation of management and control systems. The governing structure (subject) is a set of state management institutions

and managers of different levels with specific scales, competencies and features of their own functions. It provides for the comprehensive development of economic and organizational measures for human resource administration. The controlled structure (object) is a set of socio-economic relations in the course of reproduction and application of the potential of the key productive force - man. According to the Constitution of Ukraine, citizens have the right to work in accordance with their natural inclinations, professional knowledge, level of education, taking into account their social requirements. People are both the object and the subject of management, which is the main specific feature of the administration system.

Thus, the socio-economic system is a combination of control and managed subsystems, and the management mechanism is a set of relationships, forms and methods of influencing the formation, distribution and use of labor resources at the national level [17, p. 25-31].

The key tasks of human resource management include:

- providing the company with professional staff;
- formation of suitable conditions for productive application of knowledge, skills and experience of staff;
- improving the remuneration system;
- raising the degree of job satisfaction by all categories of employees through the introduction of incentive tools;
- providing labor resources for professional growth, encouraging creative initiative;
- managing the movement within the organization and the career of employees;
- creating and maintaining a favorable psychological atmosphere in the team by reducing staff turnover;
- improving methods of personnel evaluation and calculation of personal contribution;
- participation in the construction of corporate strategy (in the future it is planned to modify the organizational approach to the strategy of human resources administration).



The main principles of forming the current management structure are:

- productivity of selection and location of personnel;
- a decent level of wages and incentives;
- job promotion in accordance with indicators of professional activity, qualifications, skills, private interests and organizational needs;
- prompt and effective solution of management problems.

The structure of human resources administration in the organization consists of the following phases (Fig. 3):

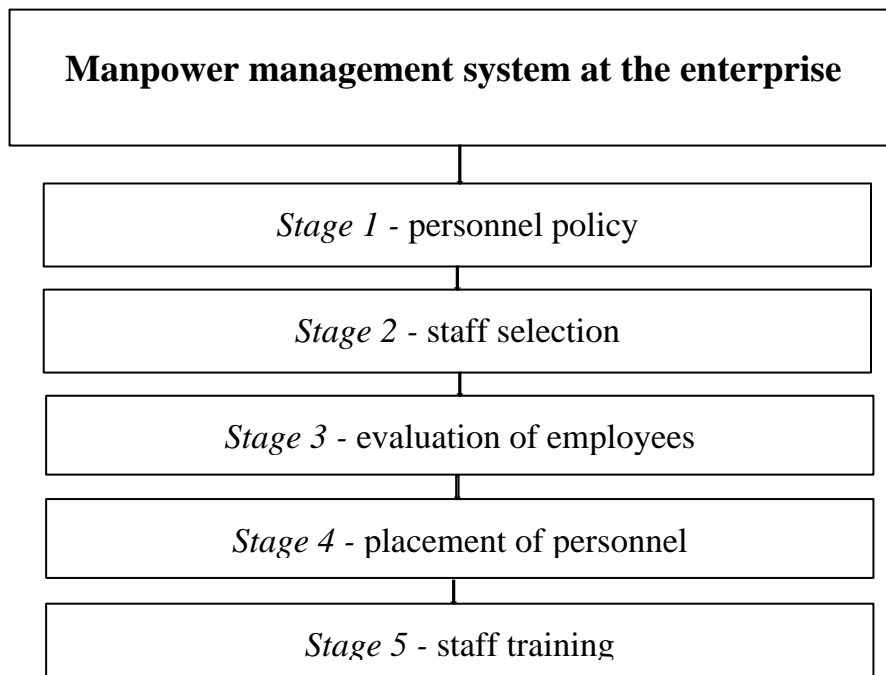


Figure 3. Manpower management system at the enterprise.

Let's focus on this system and consider it in more detail.

Thus, at the first stage of the organization, management and personnel services need to develop a personnel policy focused on modern market conditions. The main purpose of the latter is to provide each job, position with human resources of relevant professions and specialties and appropriate qualifications.

Personnel policy highlights [21, p. 149] the following three types of power in the organization (Table 1):

Table 1.

Types of power personnel policy

<b>Type of power</b>	<b>Essence</b>
Ochlocracy	Crowd power with no clear subordination of staff to norms, morals and rights. Social behavior of personnel is manifested at spontaneous meetings, rallies, demonstrations. The platform for such power is criticism and protest of current laws, appeal to the primitive interests of workers (slogans "shame", "return the loot")
Autocracy	The immense power of one person, which is justified by the implementation of a fundamentally new strategy in the organization, when it is necessary to overcome the crowd and outdated traditions, subordinating human resources to the goals of the new leader. If he is progressive, intelligent, autocracy is a method of rapid implementation of innovations and solving problems
Democracy	People's power based on self-government. The development of democracy is possible under the condition of involving high-ranking managers in the administration, choosing the head of the organization's employees, and disseminating the principles of self-government. Democracy is based on the change of power structures, the subordination of the minority to the majority

Today's development of personnel policy is characterized by the transition from autocracy to democracy, with a manifestation of ochlocracy.

Personnel strategy largely depends on the style of administration. Types of power in society have led to three key and one combined leadership style, namely:

- authoritarian, in which the manager in making decisions focuses on their own goals, principles and interests, in fact, not taking into account the views of employees and relying on a narrow circle of associates, as well as actively using tools of administrative and psychological pressure;

- democratic, based on the principle of synergy of individual leadership and self-government, ie the manager rationally defines and implements strategic goals of the organization in combination with group interests;

- liberal, which involves guiding the leader in the process of approving decisions on the goals and views of individual groups of the workforce, maneuvering to maintain a balance of interests in the team;

- Mixed style consists of a combination of three main types of leadership.

Areas of personnel policy also include the philosophy (credo) of the enterprise, the rules of internal labor regulations and collective bargaining.

The philosophy of the enterprise is a set of moral, administrative norms and rules of relations of the personnel subordinated to achievement of the strategic purpose of the enterprise.

The philosophy of the organization includes the following sections:

- goals and objectives of the enterprise, business and moral qualities of staff;
- working conditions, workplace, payment and evaluation of work;
- ensuring social values.

The principles of labor regulations of employees within the organization are an important normative document governing the hiring and firing of employees, their working hours, the procedure for resolving labor disputes.

A collective agreement is a legal act that coordinates the social and labor relations between employees and employers. Its content is determined by the participants of professional relations within their competencies. The collective agreement establishes mutual obligations of the parties regarding the formation of labor, socio-economic ties. It is important for the employee to sign an employment

contract when hiring, as it ensures a stable relationship between the company's staff and the owner, detailing the rights and responsibilities of the parties. This gives him the right to defend his interests to a greater extent, to have more opportunities to obtain important information about the financial condition of the enterprise, its professional activity, which allows you to determine your requirements for management, especially regarding wages, working conditions and labor protection. . Also, employees of the organization automatically acquire the authority to participate in the approval of decisions that limit the power of the employer.

Thus, the implementation of the ultimate goal of personnel policy by business entities is due to the implementation of the following key functions:

- development and editing of the strategy of formation and application of human resources potential taking into account economic transformations;
- encouragement, introduction of a proper regime of labor activity and high labor efficiency;
- continuous control of occupational safety of professional activity;
- guaranteeing social security of employees;
- cooperation of management and representatives of the staff on a regular basis;
- compliance with contractual terms between the administration and employees.

The second stage of the personnel management system is represented by the actual implementation of personnel selection, the rational implementation of which is one of the forms of preliminary quality control of human resources. At this stage, management selects the most suitable candidates from the reserve formed during the recruitment. It is usually advisable to choose a person who is highly qualified to perform the functional duties of the position, rather than a candidate focused on career advancement. That is, this stage consists of planning and recruiting from the existing reserve, as well as developing a model of jobs. It is prudent to start planning human resources at a working enterprise by estimating their quantitative composition. Management should find out how many people are involved in reproducing each operation, which is necessary to achieve a certain goal. At the same time, managers must consider the quality of work of employees. For example, some farms use a system

of inventory of work experience or specialties, which is based on recording the professional skills of employees with the specified number of employees who own them.

Recruitment is contained in the formation of the necessary register of candidates for all positions and specialties, from which employers choose the most suitable for a particular type of job candidates. The required amount of work on recruitment is mostly defined in the difference between the actual labor resources and the need for them in the future. Factors such as reaching retirement age, staff turnover, dismissal due to the expiration of the employment agreement, increasing the scope of the enterprise are taken into account. Recruitment is usually carried out from external (advertising in print media, on the Internet, using the services of employment agencies and contacting firms that provide management staff) and internal sources (selection is made directly at the company).

The starting point for a new worker to be more productive is his professional orientation and social acclimatization in the team. If the employer is interested in the effective work of staff in the new workplace, he must always remember that the organization is a social structure, and each employee is a valuable individual. When a person comes to work, he brings with him to the team previously acquired skills and thoughts that may or may not coincide with the experience and views of the new environment. If the manager ignores the organizational process of adapting new staff, the latter may be disappointed in the work due to lack of attention in the team or decide that in assessing the situation, it is appropriate to follow the experience gained in the previous position, or draw other incorrect conclusions about the new job. The manager should also be aware that some information for newcomers during their adaptation may have a shock effect on them. Therefore, such employees must be informed in advance about the general affairs of the enterprise.

The third stage of human resources administration is characterized by performance appraisal, ie the development of methods for assessing the professional performance of all employees, as well as the personal contribution of each of them, which helps management identify the best staff, raise their achievements by moving

to more attractive positions. Evaluation of the results of staff work implements the following interrelated goals: administrative (promotion, demotion, transfer or dismissal); informational (informing staff about the level of their work); incentive (identification of leading specialists, whom management can reward with gratitude, award or promotion).

Personnel placement, as the fourth stage of personnel management, includes career planning, pay conditions and human resource movement. Most companies are interested in recruiting within themselves. Promotion of existing staff is cheaper. At the same time, it increases the interest of staff in work, improves the morale of the team and strengthens commitment to the organization itself. It is established that employees believe in the dependence of their career growth on success in work, so they are interested in more effective dedication. A probable disadvantage is the lack of infusion into the organization of new people with progressive bright thoughts, which can lead to some regression.

With regard to wage conditions, the type and amount of rewards offered by the company are essential for assessing the quality of professional activity. Research in this regard shows that the presence of rewards affects the decision of the individual to enter a job, absenteeism, the decision on how long to work, when to leave the organization and whether to do so, in general. Based on most of the implemented experiments, it was found that the number of absenteeism and turnover of labor resources at the enterprise depends on the degree of satisfaction with the reward. In a job that appeals to the employee and gives him a sense of satisfaction, the number of absenteeism is characterized by a tendency to reduce and vice versa.

The concept of "salary" refers to the material remuneration paid to an employee for the amount of work performed. It is designed to reward employees for their work (or services) and to encourage high levels of efficiency. An enterprise cannot hire and retain staff unless it rewards them according to competitive market standards or does not have a pay scale that motivates employees to work for the organization.

In addition to salaries, the organization provides its own staff with various additional benefits, formerly called "small privileges". However, due to the fact that

such surcharges are a significant part of the package of rewards (offered by the organization), they are now called additional benefits.

One way to increase the productivity of its employees is to recruit and select the most qualified and capable workers from outside. But this is not enough. Management should also conduct programs of systematic education and training of employees, helping to fully unleash their opportunities at work.

Finally, the fifth stage of personnel management is the training of human resources, which consists of training, retraining, training. It is necessary in the following cases:

- 1) a person only begins his career at the company after graduation (training);
- 2) the employee is appointed to another position or entrusted with a new job (retraining);
- 3) the employee lacks the skills to productively perform their functional duties, which is established by the results of the inspection (training).

Thus, for the effective implementation of entrepreneurial activity and maximizing profits, the head of agriculture should focus on ensuring a quality system of human resources administration, because strong labor potential provides opportunities to compete with other enterprises, solve fundamentally new long-term challenges that will further improve social economic efficiency of the organization, maintaining its balance with the external environment.

Systems analysis is a methodological tool for an integrated approach to solving problems of improving the structure of human resource management. The systems approach orients the researcher to reveal the algorithm of effective personnel management in general and its components: goals, functions, organizational structure, personnel, technical means of management, information, methods of human management, technology of personnel and enterprise management, administrative decisions. He also directs the scientist to identify the various types of connection of these elements with each other and with the external environment, to bring them together into a single holistic picture. The external environment for human resource management is not only other subsystems of the management structure of an individual

farm (eg, subsystem management of external economic relations), but also third-party organizations (suppliers, consumers, senior structures).

Research methods serve as guidelines for studying any topic. Based on them, analyze, evaluate, forecast and draw conclusions. Consider several methods that effectively affect the use of labor resources in the enterprise and to maintain its competitiveness, in particular:

- method of decomposition, which allows you to break down complex phenomena into simpler ones. For example, the personnel management system can be divided into subsystems, the latter - into separate operations. After that, it is necessary to recreate the structure of human resource management as a whole, ie to synthesize. Then the method of compositional modeling is applied;

- the method of consistent substitution, which allows to study the impact on the competitiveness of the enterprise of each of the factors under the combined action of which determines its condition, in addition to the influence of other factors. Factors are ranked and the most significant ones are selected;

- method of comparison, which allows you to compare the estimated data of the reporting year with the data of the base or previous years;

- dynamic method, which involves the location of data in the time series and the exclusion of random deviations from it. It is used to study quantitative indicators that characterize the security and efficient use of personnel;

- expert-analytical method, which can be used to establish that highly qualified specialists influence the improvement of the final results of the enterprise;

- normative method used to analyze the activities of the economy in relation to the use of available resources. Based on it, the type of organizational structure and criteria for building a hardware management system of the organization are determined;

- parametric method, the main task of which is to identify functional relationships between motivational factors and productivity;

- functional-cost method, which allows you to calculate that the company is more profitable to invest in its own labor resources for their retraining or advanced



training. The method helps to choose the staff that is most effective in terms of the final results;

- correlation-regression method, which provides the possibility of forming a model of human resources use with the definition on this basis of ways to increase competitiveness;

- the method of principal components, which allows you to reflect in one element the properties of dozens of indicators. This makes it possible to compare not many components of one personnel management system with many indicators of another similar system, but only one;

- balance method, which involves the implementation of balance comparisons, linkages. For example, comparing the actual and nominal working time fund;

- research method, which embodies a comprehensive consideration of the issue, provides clarification of problems before solving them;

- block method of using standard solutions, which is used to improve the mechanism of personnel administration as the basis of competitiveness of the organization. It is a way of typing subsystems of linear-functional and program-target structures. Typical block solutions are agreed together with the original organizational solutions in a single personnel management system of the enterprise. This method accelerates the process of forming a new system of human resource management and increases the efficiency of the structure at the lowest cost;

- a method of control questions, which consists in intensifying the creative search for solving problems to improve the system of staff motivation through a pre-prepared list of leading questions. The form of the latter should be such that they have a "hint" of what and how to do to solve the problem.

The greatest qualitative effect of the human resources management system is achieved when all methods are used in combination. Using a set of methods allows you to evaluate the object of improvement from all sides, which avoids miscalculations and errors.

Under modern conditions of development, competition is the driving force of any enterprise. It is the level of competitiveness that determines the probability of its

continued existence. The urgent problem today is to establish a link between improving the efficiency of human resources use and the end results.

Improving the productivity of human resources management leads to an increase in average annual output, increase production, profitability and profitability of farms, and hence the level of ensuring their competitiveness. The application of methods in the aspect of studying the effective administration of labor potential and identifying on this basis ways to increase the competitiveness of enterprises reflects the relationship between indicators of productivity growth and the final results of the enterprise. Thus, the return on equity, return on sales, return on total capital increases if the number of employees who have higher education, have new professions or improved their skills increases. Therefore, in order to achieve efficient use of financial resources, which mainly determine the competitiveness of the organization, management needs to pay close attention to improving the mechanism of personnel management. As you can see, highly skilled workers are the key to successful business and a fundamental component of economic competitiveness.

The effectiveness of human resource management depends not only on the availability of highly qualified employees, but also on staff turnover. When hiring or firing a person, management usually asks some questions, such as: what are the costs of using different sources of recruitment, whether it is profitable to implement the whole selection algorithm or all adaptation measures based on available funding, what is the effectiveness of investment in "human capital", the losses caused to the organization by staff turnover, etc. That is, in each case, the company on a regular basis must calculate and estimate the losses and losses associated with the replacement of personnel.

It is advisable to perform calculations using the modular principle, which in a certain way distinguishes traditional types of costs and probable losses, which are a kind of modules. Such costs are payments that accompany the process of hiring and firing people and training (different lengths of time). Losses include: losses in relation to output due to a simple vacancy waiting for employment; losses on work efficiency in the period before dismissal, as well as during the adaptation period of the employee.

It is clear that the choice of management personnel strategy depends on the quality of accounting and evaluation of costs and losses from staff turnover, namely their volume and the ratio of their elements.

Having determined its own policy of personnel administration and its components, the organization will address current issues separately in each complex situation, taking into account its specifics and quantitative characteristics: the total cost, their types, lost profits. The optimal format for solving such problems is to reduce costs.

Since staff turnover plays an important role in improving the final results of activities, occupying an important place in the management of human resources, and requires significant losses, the company needs to conduct staffing as economically as possible. In order to more effectively manage human resources, the organization must determine for itself what is more profitable: attracting new skilled workers or investing in existing staff (learning new professions, improving competencies).

We emphasize that a necessary condition for improving the staff of the enterprise and ensuring its competitiveness is to invest in labor resources in order to improve the quality of their work. After all, high-quality work over a period of time can create more products than medium and low-quality work. Qualified and experienced staff use more progressive, rational ways of performing labor operations, provide higher productivity of equipment, spending less time on technical and organizational maintenance of workplaces, achieve a reduction in losses from shortages of goods. Highly qualified staff is able to service more sophisticated modern equipment, which also affects the increase in output per unit of working time, ie there is a reduction in labor costs.

Further development of market relations in Ukraine requires the introduction of new methodological approaches to solving the problem of fuller use of the potential of labor resources on the platform of activating human activity, the formation of effective incentives in the management process. Low level of motivation is a limiting tool that hinders the realization of their own capabilities and causes mass alienation of

employees from the final positive effects of professional activities, reducing the inspiration of people to work.

Today, a highly skilled employee is identified with the capital of the enterprise and is seen as an "investment in the future", the main factor in the development of the organization, increasing its productivity. Therefore, farms seeking to improve the results of their functionality and be competitive in the market need to increase staff efficiency. And this is considered possible only if the promotion of labor activity at all levels of industrial relations.

Motivation is understood as the process of motivating people to successful professional activities. It shapes the behavior of the individual during employment, affecting all areas of his life. Work as an activity covers a significant number of incentives. Thus, organizations should pay more attention to work as an object of motivation, as the latter is the first economic condition for meeting staffing needs, characterizing the willingness of staff to make the maximum contribution to work and reflecting the individual desire to work at full strength [22, p. 67-69].

Understanding the relationship between employee incentives and end results leads to the development and implementation of effective motivational approaches. The readiness of staff to fully realize their potential (professional knowledge, best business qualities, skills) largely depends on the methods of incentives. Labor motivation of staff is formed in the process of the organization, acting as a major factor in effective administration.

Motivation of the workplace in the process of professional activity is transformed into work motivation, which, in turn, affects the willingness of the worker to mobilize their professional potential to improve the performance of the enterprise. And since this situation affects the improvement of product quality, gross profit and profitability of production, it can be assumed that the economy that implements incentives is able to achieve this goal and be competitive in the professional field. The direct implementation of production plans and programs depends on how effectively motivated workers are to achieve quality work results.

Motivational structure in the field of labor is formed under the influence of two groups of factors:

1) internal, related to the differences of the individual and his work. These are the leading motives of behavior, based on the individual hierarchy of needs, their own scale of values, socio-economic experience;

2) external, which affect the labor behavior of the worker from the outside. These are property relations, economic condition of the enterprise, style of management, working conditions on it.

Stimulation of labor activity should form the basis for the full reproduction of human resources and can not be effective without meeting the material needs, encouraging the appropriate interest of workers.

Under material motivation it is expedient to understand the desire for wealth, the desire to obtain a comfortable life, a certain level of prosperity. Orientation of the individual to improve their own well-being requires an increase in labor input, in particular, increasing the quantity, quality and productivity.

The issue of increasing the material incentives for professional activity of staff is one of the main areas that need to be constantly addressed by management. The growth of average annual output is primarily influenced by increasing wages, so the leading role in encouraging staff to work belongs to the administrative regulation of wages as a key form of staff income in the organization.

One of the first to consistently prove the ineffectiveness and viciousness of the wage-limiting strategy was the world-famous scientist M. Porter. He noted that policy orientations focused on curbing wage growth are in most cases erroneous and that wage increases should be allowed that are commensurate with or somewhat outpacing performance. This, in his opinion, provides optimal incentives to find more progressive sources of competitive advantage and a favorable impact on the development of competition in certain sectors and market segments [23, p.108].

The bright motto of modern management is the expression "High wages - high productivity". Thus, the famous economist of today Lee Iacocca argues that the basic platform of all democracies is a worker who receives \$ 15 per working hour: a person

who owns a house, car, appliances, and acts as an activator of the engine of the economy [24, p. 408].

Therefore, to improve the process of effective human resource management requires:

- to increase wages, because its high level comprehensively affects the encouragement of staff to quality work and the growth of production performance of the economy. First of all, a higher salary (compared to the market average) helps to reduce staff turnover, ie the formation of a permanent staff. If the turnover of labor resources is reduced, the employer is able to reduce the cost of finding and training staff, direct the released funds to the development of production, which, in turn, increases the competitiveness of both products and the organization itself.

The implementation of a high wage policy allows management to select in the labor market more professionally knowledgeable, experienced, creative, focused on the success of employees whose performance is potentially higher than the market average. In addition, financial savings are achieved for training, retraining of newly hired staff. The high level of wages is a factor in improving the responsibility, diligence, initiative of staff. Thus, to improve the process of human resource management in the enterprise, first of all, it is necessary to increase the salaries of staff, of course, in terms of achieving significant productivity;

- to pay monetary rewards in the form of bonuses, which also has a positive effect on the growth of staff efficiency. Such surcharges can be designed to ensure high quality products with a mandatory increase in profits or to provide a variety of benefits that meet the needs of employees. This makes it possible not only to interest the latter in effective work, but also to consolidate in a separate team those people whose work is in urgent need;

- to increase additional payments, the amount of which in normal conditions of expanded production should not exceed half of wages.

In order to increase labor productivity, the choice of material incentive system must be clearly consistent with the specifics and objectives of production activities of the economy to avoid conflicts between the amount of work invested, expected

remuneration and wages received. Otherwise, you should not count on the effectiveness of the end results.

Considering the identified issues through the prism of today's realities, it is worth emphasizing the fact that to improve the management of human resources motivation of professional activity plays a significant role, serving as a major factor influencing the self-sacrifice of employees. According to Bernard Shaw, only a person who seeks the right conditions for himself succeeds in our world, and if he does not find them, he forms them on his own. Focused emphasis on motivating people to work is an important area of work with staff, which should have every manager. Understanding of managers on the need for maximum involvement and implementation in the work process of motivational personnel approaches is the most important condition for improving the mechanism of human resources management of the organization and the basis of the competitiveness of the latter.

Note that the work, in addition to providing purely physiological needs, should provide an opportunity to provide other aspirations. For example, friendly communication, job satisfaction, promotion, respect and recognition among colleagues. So, when a person achieves a certain material stability, he begins to think about satisfying his ambitions. Recognition from colleagues and management often encourages a person to work hard, and the likelihood of career growth keeps him in one company.

In the study of the process of modeling the mechanism of labor resources and identifying ways to increase the competitiveness of the economy on this platform, it was found that due to the growing share of employees who graduated, employees who learned new professions and employees who improved their own qualification is achieved by improving the final results of the enterprise, namely: reducing the cost of production, increasing production, its profitability and profitability.

As the work of specialists, employees and managers plays an important role in ensuring the successful operation and development of the economy, the necessary modern solution to increase the competitiveness of farms is to improve methodological approaches that increase the interest of such staff in performance. It should be said that

personnel management is successful if management is committed to making the most of the potential of all employees, giving each of them the opportunity to grow, self-realize and move up the career ladder. Thus, the key task of a human resources specialist is to manage the career of all personnel of the enterprise, which is an important factor in improving the mechanism of human resource administration.

In general, business career management is understood as a set of activities carried out by the personnel department of the economy regarding the planning, organization, motivation and control of employee growth, based on its goals, needs, aptitudes, potential, opportunities, requests and socio-economic conditions of the enterprise [25, p. 15-16].

The process of business career management provides opportunities to achieve staff compliance with the interests of the economy, increase productivity, reduce staff turnover and the fullest possible disclosure of skills of employees.

Since the success of the organization, and, consequently, the degree of its competitiveness, directly depend on the professionalism of management, ie managers, career management should begin immediately upon hiring. After all, the employee, striving to achieve career growth, is interested in improving the level of their work, and thus ensure the efficient use of financial resources.

One of the most popular concepts of career development administration is the partnership model, which involves the cooperation of three parties - the specialist, his head and the human resources department of the organization. The employee is directly responsible for the planning and personal growth in the position. However, the manager takes the place of a kind of mentor or sponsor of the employee. The department of personnel administration implements the functions of a professional consultant and at the same time manages the procedure of career development of a specialist at the enterprise [26, p. 46-51].

Taking into account the study in terms of defining the concept and essence of labor resources, as well as assessing their impact on the competitiveness of the economy, it can be argued that:



- for production and economic activities, human resources are of great importance, as it is one of the main areas of influence on ensuring the competitiveness of the organization. People, their skills, education are the most important component of the productive forces, which decisively affects the state of socio-economic development of the enterprise, as effectively used knowledge can increase its income by 70-80%. That is, it should be emphasized that the competitiveness of the economy is a mirror, which reflects the overall results of almost all employees of the organization. However, the human factor is the key to the success or failure of any business;

- The management of the organization needs to pay considerable attention to the stability of staff, as it leads to increased productivity and affects the improvement of the final indicators of professional activity of the economy, to ensure its competitiveness. Any organization operating in a competitive environment, in order to prevent the loss of their positions, more precisely, to strengthen them in the market segment must first form a quality workforce and improve the system of effective management.

### **3 Department of agricultural enterprise development management in conditions of decentralization**

The history of decentralization has largely developed in the XIX - early XX centuries. It is based on the conclusions of economic theory and usually contains the following four theses:

1. Decentralization provides a more efficient allocation of resources in the public sector. A system in which decisions on the allocation of resources in the public sector are made at the regional and municipal levels makes public choices more accurate, taking into account local specifics.

2. Decentralization increases the accountability of public authorities in spending budget funds. The point of this argument is that in decentralization, the link between taxes paid and public goods and services received is more direct and transparent, as taxes are levied where budget expenditures are made.

3. Having its own tax base encourages regional and local authorities to take measures to expand it, ie to encourage the development of regional and local economies.

4. Giving regional and local authorities the right to independently manage budget funds stimulates them to reduce unjustified expenditures in the public sector. The most detailed issues of decentralization were studied by J. Wedel. Decentralization, in his opinion, is the transfer of power not to civil servants and bodies representing the central government, and other bodies that are not hierarchically subordinate to the latter, mainly those elected by the population [28, p. 392].

The justification for the need for decentralization is twofold. First, "decentralization, by handing over management directly to stakeholders, has the advantages of a democratic nature", and democracy is "much more real on a local scale than on a national scale". Secondly, "decentralized management, if the necessary means and conditions are provided for it, is much less important and much more practical than centralized management" [28, p. 397].

There are several scientific approaches to the interpretation of the essence of the category of "decentralization". The most common interpretations of decentralization

among domestic and foreign scholars are systematized in Table 1.

Table 1. Approaches to the definition of "decentralization"

	Decentralization is
Decentralization. gov.ua	the process of transferring power and financial resources from the central to the lower levels of government, such as regions, provinces, districts and municipalities. The term "process" means the direct participation of citizens in political and socio-economic activities, which should strengthen the process of democratization in the future.
Listen to S.V.	transfer of rights, responsibilities for the provision of funds for the performance of public functions from the central government to subordinate or autonomous authorities or organizations, as well as to the private sector.
Odintsova GS, Mostovy GI, Amosov OY	appropriate compliance with the needs of society functional responsibility of different levels of government; independence in approaches to management, taking into account the diversity of local characteristics while maintaining unity in the main, in essence.
Gibson D., Donnelly D., Ivanovich D.	a process that involves the transfer of power to make decisions at the lowest possible level within the organization.
Jean-Paul Faguet	the transfer by the central government of certain functions, with all the necessary administrative, political and economic attributes, to local authorities, which are independent units and sovereign within the geographical boundaries or functional areas of activity defined at the legislative level.
Kalman Meje (Hungary)	Decentralization is needed for more even economic growth and income redistribution. Local governments must implement their own projects, and for this they need their own tax base, the ability to transparently protect their share in central taxes and some autonomy in the use of part of the collected taxes.
Lelechenko A.A.	delegation of powers, resources and responsibilities from central to local, semi-autonomous public authorities, as well as to private business entities.
Litvak J.	transfer of power and responsibility for the performance of state functions from the central government to subordinate or semi-independent state bodies and / or the private sector.
Linyov K.	the process of transferring responsibility for the planning, distribution and implementation of resources from central government to regional, local government and self-government.
Legal	the process of expanding and strengthening the rights and powers of administrative-territorial units or lower bodies and organizations while narrowing the rights and powers of the center.

*Source: compiled by the authors on the basis of [27 ;, 28; 29; 30; 33; 34; 37; 40; 41; 42; 43; 44; 46].*

However, it should be noted that in foreign scientific legal literature, the empowerment of local governments with separate state powers is often seen as a way of deconcentration rather than decentralization. If the principles of centralization and decentralization regulate the relationship between center and place, the principles of concentration and deconcentration are used to distribute competencies between

different bodies of the same level of government in Latin American countries, as in European countries. Powers are concentrated in the hands of one body, when it exercises all the full power given to the administrative-territorial unit, while the system of deconcentration provides for the division of functions between different bodies of the same level [39, p. 34]. The transfer of authority from the center to the field is carried out through decentralization, which allows to bring the services provided by the state in line with the needs and demands of the population. The transition to decentralization is a kind of "global shift of power" that frees the individual from state care and allows democracy to be built from the bottom up. Since the feedback between the government and the individual is very important for the process of democratic development - citizens' awareness of government actions and government awareness of the real needs of a particular citizen, it is natural that this is easiest at the basic level - local, where citizens and government officials live [33].

Today, a necessary condition for the stable development of society and the effective functioning of the state is to ensure a balance of national interests not only with the interests of local communities, but also cooperation and coordination of these interests at different levels of executive power. It is important to distinguish between types of decentralization, as they have different specific characteristics, political significance and success. In the early 1980s, there was a widespread claim that decentralization has types, each of which covers different forms [34, p. 11]. There are three types of decentralization: political, administrative and fiscal.

Political decentralization is, first, the transfer of power to the lower level of government; second, joint policy development and implementation through stakeholder engagement. Political decentralization is manifested through devolution. Proponents of political decentralization believe that decisions made through broad public involvement will be better and more in line with the diverse interests of society than those made by political authorities at the national level. This definition means that the election of political representatives from local polling stations allows citizens to better know their politicians, and in turn politicians - to respond in a timely manner to the needs and desires of their constituents [45, p. 157].

It should be added that in this context, political decentralization eliminates the problem of the median voter and allows the central government to better understand the needs of individual administrative-territorial units through communication with local authorities.

Political decentralization often requires constitutional or statutory reforms, the development of political parties, the strengthening of legislation, the creation of local political units, and the support of the initiatives and interests of civic groups. Administrative decentralization is aimed at delegating power over the process of development and decision-making, resources and authority to provide public services in certain areas from central to lower levels of government, sectoral departments subordinate to central government, agencies [47].

Administrative decentralization refers to the redistribution of power, financial resources and responsibilities for the planning, financing and management of certain public functions from the central government and its bodies to the relevant sectoral units of local government, subordinate units at all levels of government, semi-autonomous government or regional authorities or associations (joint stock companies), as well as regional or functional authorities within a defined territory [38, p. 62].

Administrative decentralization can only shift authority from central government officials in the capital to those working in oblasts (regions), provinces or districts, and can be accompanied by strong sectoral governance or the provision of appropriate resources and powers to local authorities under the supervision of ministries. Financial and economic (fiscal) decentralization is the delegation of financial resources and powers, the formation of the revenue side of the budget. The terms of such delegation are often discussed in negotiations between central and local authorities on the basis of factors such as the interconnectedness of the regions, the availability of resources and local government opportunities. Subject to fiscal decentralization, local governments and private enterprises are provided with financial resources, the power to collect local taxes, and the right to determine the expenditures of local budgets in order to perform their decentralized functions [47].

Summarizing the primary sources, we can identify five main forms of financial and budgetary decentralization:

- self-financing or compensation of production losses by paying users for services;
- measures of partial financing or production, through which users participate in the provision of services, infrastructure development through financial contributions or contributions of labor;
- expansion of local revenues (property taxes, sales or indirect payments);
- transfers that shift the total tax revenue provided by the central government to local governments for general or specific uses;
- granting permission for municipal borrowing or mobilization of funds of local authorities through the guarantee of loans, credits. There are also basic forms of decentralization - deconcentration, devolution, delegation and division.

There are two ways to implement administrative decentralization: through forms such as deconcentration and delegation. Among these forms of decentralization, deconcentration is considered the weakest, which is most often used in unitary states. It includes the redistribution of decision-making powers, financial and managerial powers, and responsibilities between the various levels of central executive. Under such conditions, territorial or sectoral administrations are subordinated only to central authorities. Management tasks under conditions of deconcentration are distributed to the bodies of the same entity. Deconcentration can be applied horizontally or vertically. Vertical deconcentration is when public administration functions are transferred to subordinate state bodies, such as the ministry. Horizontal deconcentration occurs when at one management level create appropriate bodies for different specialized areas [38, p. 97].

Delegation is considered to be the most advanced model of decentralization, as it involves the transfer of an important part of state powers to the exclusive competence of local governments [37].

Local governments thus receive certain rights in some areas in accordance with current legislation, act independently and have their own sources of funding. The

decision-making and implementation process is entirely within the competence of local governments, and in the event of a conflict between them and the central government, the responsible courts can intervene only in the event of violations of the law or the Constitution. Delegation is in fact a compromise model of decentralization, which is halfway between the transfer of power and the power of decentralization. In this case, local governments (not networks of central government) are entrusted with certain state functions, while central governments exercise some control over the implementation of tasks and, as a rule, have to allocate funds from the state budget to perform these tasks and transfer them to local governments [37].

Therefore, one of the most important issues of decentralization is the question: to what extent and under what powers can decentralization be carried out. To answer this question, we must turn to another very important term, without which it is impossible to imagine the process of decentralization - subsidiarity. In other words, the main criterion of rational decentralization is the achievement of the highest quality of service to citizens, and the main principle is subsidiarity, which determines the lowest optimal limit of government intervention in local affairs. The principle of subsidiarity (English Subsidiary - auxiliary, complementary) - a general principle that involves the transfer of decision-making powers from the central to the lower organizational levels. The legal regulation of the functions and powers of local self-government of most foreign countries is based on the principle of subsidiarity, which is recognized at the European level. Its emergence is associated with the formation of the concept of public administration - a single system of public administration, in which local authorities, local interests, local government in general are not opposed to the state, but are integrated into a single management mechanism aimed at comprehensive solutions, facing society as a whole. However, due to the inequality of conditions (resources), local governments of the same level cannot equally ensure that the relevant problems are solved. The competencies of local governments of European countries show that the principle of subsidiarity, local communities can implement only those competencies that are protected by the state by creating mechanisms for financial redistribution [37, p. 45–46].

The issue of development and improvement of local democracy institutions is relevant in the implementation of decentralization, which will bring about radical changes in the management of the budget system, which will promote democratic relations both in the country and at the local level. Local budgets should be independent, financially independent, have a balanced budget, as well as at the legislative level clearly defined separation of functions and powers between state and local executive bodies and local governments [35, p. 615].

Wealthy territorial communities are the basis of their socio-economic development and provision of citizens with public goods. Thus, budgetary decentralization should be based on the financial independence of established communities with a clear division of powers between all levels of government. It is budgetary federalism that will affect the budgetary autonomy of local budgets. Particular attention should be paid to the activities and responsibilities of line ministries for the development of industries [35, p. 615].

The functioning of budgetary institutions depends not only on the distribution of powers between levels of budgets, but also on the amount of budget funding. Currently, local authorities do not have the financial capacity to finance the entire social sphere, so we believe that this stage of transfer should be gradual, with the transfer of financial resources, and then at the expense of local budgets [35, p. 615].

So what do we get from the analysis of basic approaches to decentralization:

1. the state may carry out decentralization of power in the interests of the population, on the basis of law, transferring part of the powers of executive bodies to local governments;

2. Decentralization of powers should take into account the principle of subsidiarity, ie in such a way as to transfer powers to the level of government as close as possible to the citizen, which is able to exercise this power more effectively than other bodies;

3. transferring powers from executive bodies or local self-government bodies of a higher level of administrative-territorial structure to a lower level, the transfer of necessary resources should be ensured and the right of local self-government bodies to



decide on delegated powers based on local peculiarities [35] .

During the implementation of decentralization, the state may face the following challenges:

- deepening regional identities among the population, separatist sentiments in some regions;

- strengthening control over expenditures and their sources, the amount of arbitrariness of officials and local elites, growing dissatisfaction of the population of the regions with power, in particular the central government, which will demonstrate an inability to protect the interests and rights of regional communities;

- the danger of centralized trends due to the extremely low level of responsibility of the state to the administrative-territorial entities [36, p. 24].

Intergovernmental funding also has a number of threats:

- budget decentralization provides a wider range of powers to local authorities than can exist in central government;

- inconsistency between expenditure commitments and their sources and amounts of funding;

- local authorities may not have sufficient leverage and incentives to increase budget revenues, and may not have the right to independently, transparently, fully manage their own resources;

- if for a long time the system of intergovernmental financing has developed unpredictably, it did not have scientific and methodological approaches to their calculations, it had a previous negative impact on budget management in the direction of planning and forecasting;

- imperfect institutional and legal base of intergovernmental financing does not give impetus to the development of regional infrastructure and does not contribute to the production of public goods [35, p. 616].

Thus, although the above-classified types of decentralization involve varying degrees of delegation of power, authority and responsibility to lower levels of government, semi-autonomous public organizations or private enterprises, central governments still retain the right to influence and a number of powers, which are

regulated during the conclusion of relevant contracts (agreements, contracts), the preservation of the right to monitor the quality of services or delegated functions, make the necessary adjustments (if necessary) or terminate the contracts.

In the Ukrainian countryside, the following main groups of common resources can be identified: land, water, social, social, financial and information. Among the ways to manage them are two main groups: institutional (in particular, legislative regulation of efficient use of common resources) and organizational (associations of land and property owners, associations of users of common resources, utilities, public associations, budgets village councils, creating a favorable climate for small and medium-sized businesses in rural areas). Decentralization reform is a way to solve the problem of effective management of shared resources of rural areas. Among the reasons for such great attention to the reform of the territorial organization of power is that today local self-government is largely unable to intensify economic activity and provide a favorable environment for human life. The vast majority of basic management units do not have sufficient economic potential for their development. During the years of independence, the problem of economic viability of territorial communities, especially rural ones, became more acute. For example, only 5% of rural communities can be considered self-sufficient, able to ensure sustainable socio-economic development. That is, the possibilities of self-government in such communities are significantly limited [47].

The level of decentralization of power should correspond to the ratio of two indicators - the freedom of local governments and the adequacy of their responsibility for decision-making [48].

The main strategic goal of decentralization reform is to create a comfortable and safe environment for human life in Ukraine. This can be achieved by building an effective system of government at all levels (rural / urban community - district - region), by transferring the maximum possible number of powers to the level closest to the citizen - communities. And also - creating conditions for the dynamic development of regions and providing quality and affordable public services to citizens. In Ukraine, the decentralization process began in 2014 with the adoption of

the Concept of Reform of Local Self-Government and Territorial Organization of Government [49], Laws "On Cooperation of Territorial Communities" [50], "On Voluntary Association of Territorial Communities" [51] and amendments to the Budget and the Tax Code - on financial decentralization. This process has led to the formation, in accordance with the provisions of the European Charter of Local Self-Government, of a significant, effective and capable institution of local self-government at the grassroots level - the United Territorial Communities (UTG).

Decentralization reform is directly related to the development and optimal use of the resource potential of rural areas. In particular, the preamble to the Concept of Reforming Local Self-Government and Territorial Organization of Power in Ukraine states that at present, problems that directly relate to the development of rural areas need to be effectively and quickly resolved:

1) deterioration of the quality and accessibility of public services due to the resource inability of the vast majority of local governments to exercise their own and delegated powers;

2) wear and tear of heat, sewerage, water supply networks and housing stock and the risk of man-made disasters in conditions of limited financial resources of local self-government;

3) difficult demographic situation in most territorial communities (aging population, depopulation of rural areas and monofunctional cities);

4) inconsistency of local policy on socio-economic development with the real interests of territorial communities;

5) underdeveloped forms of direct democracy, inability of community members to act in solidarity to protect their rights and interests, in cooperation with local governments and local executive bodies and achieve common goals of community development;

6) reduction of the level of professionalism of local government officials, in particular due to low competitiveness of local governments in the labor market, reducing the prestige of positions, which leads to low efficiency of management decisions;

7) corporatization of local governments, closed and non-transparent activities, high levels of corruption, which leads to reduced efficiency of resource use, deteriorating investment attractiveness of territories, increasing social tensions;

8) excessive centralization of powers of executive bodies and financial and material resources;

9) the removal of local self-government from addressing issues in the field of land relations, increasing social tensions among the rural population due to the lack of ubiquity of local self-government.

In modern conditions, the organization of rural development requires improving the system of solving a set of problems in the areas of distribution of functions of central and local government in the model of rural management, development of local government and rural community; building effective forms of agricultural sector management; analysis of the use of rural development potential; search for methods of employee incentives; optimization of land use; accessibility of social services and social infrastructure facilities for all groups of the rural population; dissemination and adaptation of local practical experience, etc. [52, 53].

According to Diesperov VS, administrative-territorial reform should be carried out with the active participation of rural communities, taking into account the capabilities, needs and interests of each. Communities should be empowered to dispose of the entire territory, which in land registration is divided between village councils. The power of the local self-government body should extend to all economic entities, enterprises and organizations, which in the territory of a rural community should have an enterprise on its territory, which will become the economic base of its economy. The reference point for reforming the rural economy will be the organization of communal enterprises of communities with diversified production and service activities [54].

Kropyvko MF, Xenofontov MM and Khmil NV offer a systematic vision of the institutional components of reforming the management of the agricultural sector of the economy in terms of decentralization of power (Fig. 1).

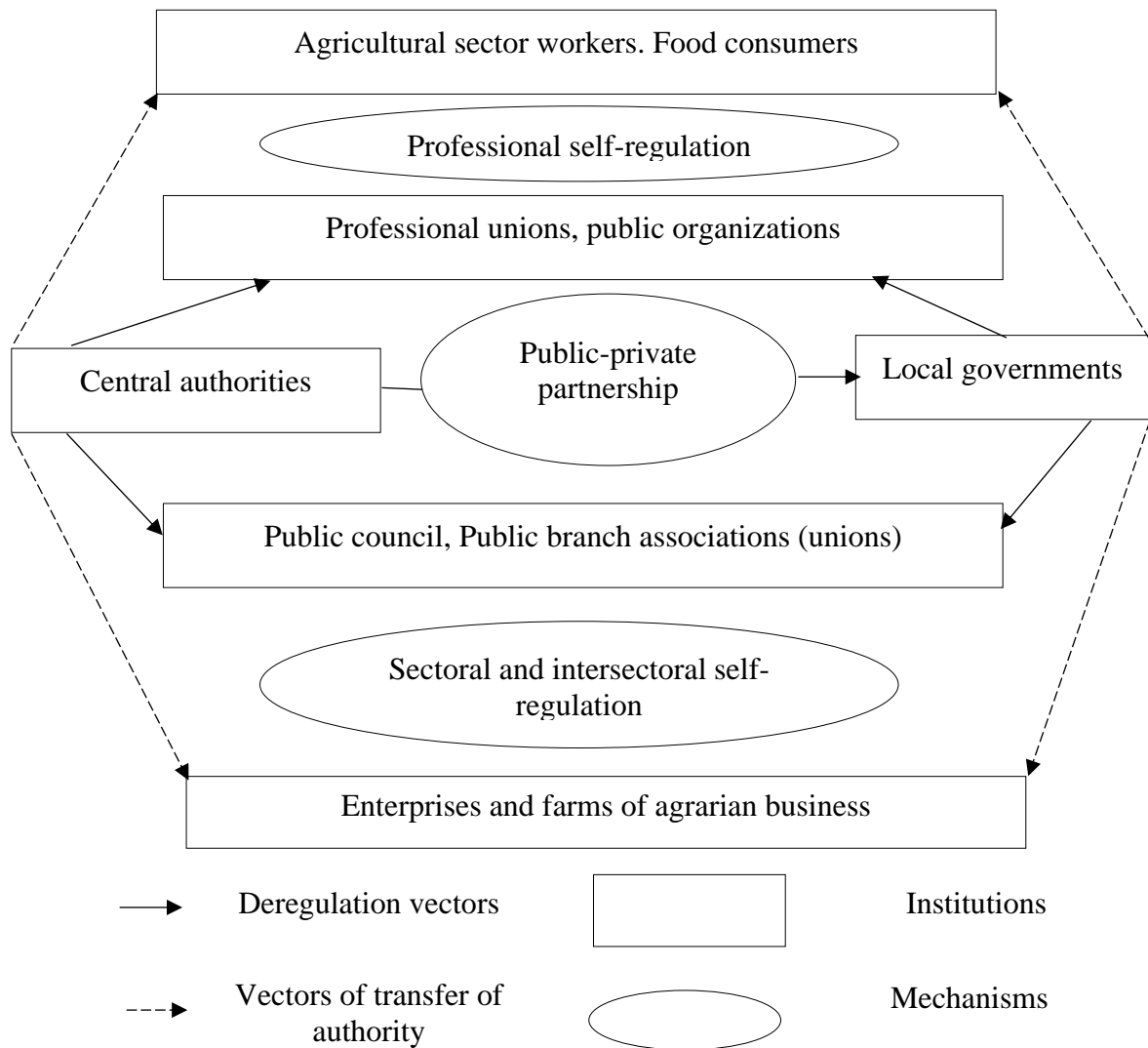


Fig. 1. System vision of institutional components of reforming the management of the agricultural sector of the economy in the context of decentralization of power [61]

Domestic science does not pay due attention to the study of the impact of irrational factors on the development of socio-economic environments, including in rural areas. Taking into account the state and potential of changes in the "human factor" is mandatory in the development and implementation of appropriate models and reforms. Changing the desperate psychotype of people to proactive requires focusing on supporting their various organizations and the active role of these formalized associations in all areas [63].

Along with social, economic partnership, according to Malik M.Y. and Zaburanna LV, is an unalterable condition for the implementation of the model of rural

development with integration diversity, which should receive development and comprehensive state support:

- joint activities of peasant farms on the basis of cooperation: societies for the joint use of machinery and land cultivation, public pastures, herds, distilleries, marketing groups, unions of landowners-landlords, etc .;

- communal and small private enterprises for the provision of agricultural services to peasant farms: fodder production, mills, slaughterhouses, dairies, the provision of agricultural, veterinary, trade, advisory and other services;

- cooperative entrepreneurship: enterprises of consumer, service, production cooperation;

- village-centric (village-preserving), which provides priority satisfaction of interests and preservation of traditions of the rural population, characteristic institutional features of rural areas;

- territorial (cluster), which provides for the local formation of economically active territorial communities or territories based on the integration of all components of rural development, including various industries;

- mixed, based on the use of individual components of different models, mainly sectoral and territorial [66]. In our opinion, the territorial or cluster model of rural development deserves special attention. It best reveals the potential of decentralization reform aimed at increasing the managerial and economic independence of the regions [67].

Because it allows us to consider two elements of the mesoeconomy - territories and intersectoral complexes as complementary factors in the formation of regional socio-economic systems. According to Porter M., a cluster is an association of complementary enterprises, organizations and related to them by geographical and functional characteristics of government agencies, research institutions, etc. on the basis of joint activities in certain areas for the production of competitive products in domestic and foreign markets and increasing the profits of cluster members [68].

Kropyvka MF believes that the cluster in agriculture is an inter-farm territorial association not only of complementary enterprises (both large agricultural business and

small agricultural enterprise), which cooperate with each other, forming a closed technological cycle of large-scale production and implementation of competitive final products (goods, services) while maintaining the legal independence of the participants. This may also include infrastructure components, including government agencies and research institutions that create favorable conditions for the production and promotion of products of cluster members in the market of agricultural products and food [71].

The scientist proposes three types of large-scale agro-industrial associations of the cluster organization:

1. Self-governing product agro-industrial association of economic entities - the cluster-forming unit of this association are technologically interconnected within the food chain of enterprises and farms located in neighboring areas and even regions; the internal infrastructure may consist of a joint marketing service, agro-service and transport enterprises, etc., which ensure the promotion of agricultural products and food along the food chain in those parts that are unable to provide individual members of the association; external infrastructure support of the cluster is carried out by specialized research centers, advisory services and agro-consulting firms; banks and insurance companies, local governments and public authorities, public organizations; the activity is managed by the Council of Participants, and the main organizational work is carried out by the main enterprise in cooperation with the regional departments of agro-industrial development, other branch management bodies and public organizations;

2. Self-governing research and production agro-industrial association of producers of one or another innovative product for the agricultural sector - cluster-forming unit here are producers of innovative products for the village: scientific institutions, specialized agricultural enterprises, agricultural machinery, chemical industry, etc., interacting on the basis of direct connections; the internal infrastructure here can be represented by a business center or a technology park, which ensure the promotion of science-intensive products to consumers; external infrastructure support consists of agro-consulting firms, banks and insurance companies, local governments

and public authorities, public organizations; the activity is managed by the Council of Participants, and the main organizational work is carried out by the regional research center or university in cooperation with the regional departments of agro-industrial development and the governing bodies of the branch;

3. Self-governing territorial-industrial agro-industrial association (district) - cluster-forming unit here consists of enterprises and farms located on the territory of agricultural production and processing, as well as service structures; the internal infrastructure is formed by regional centers of scientific support and agricultural advisory services, marketing groups, service cooperatives, joint marketing services, agro-service and transport enterprises, etc .; branches of the Agrarian Fund, the Land Bank, other banks and insurance companies, local self-government and state authorities, and public organizations will provide external infrastructure support; the activity is managed by the Council of Participants, and the main organizational work is carried out by the relevant territorial branch of the Agro-Food Council, the executive organizing body is the relevant department of agro-industrial development.

Decentralization reform actualizes the task of optimal choice of the structure of economic activity of a particular region, forming a socio-economic landscape in accordance with a set of regional factors of production that are in surplus (compared to other regions). Local communities and their self-governing bodies face both new opportunities and new responsibilities. It is becoming clear that the level of well-being of members of local communities depends not only on the availability of resources, but also on how fully and effectively to use them. In turn, the latter depends on the level of passion of rural residents and the quality of management characteristics of their representatives in local government, the willingness of local businesses to partner with each other and local governments, to take part of the responsibility for maintaining and developing such the level of social infrastructure in rural areas, which would meet the needs of local residents in basic household needs, was a stimulus for the living of the economically active population in rural areas.

The impetus for the development of innovation in agricultural enterprises should be the concentration on the development of science-intensive production technologies,



which will bring the industry to globalized food markets and achieve GDP growth in Ukraine. It is advisable to pay primary attention to innovative technologies at agricultural enterprises, especially in the field of waste processing and production of alternative energy sources [81, p. 96].

Such a multifaceted process as business planning is not possible without the use of economic-mathematical methods and elements of mathematical modeling. The result of their use is the construction of correlation-regression models that contain the relationships of economic performance. In these models there are factor and performance indicators (signs) [82]. The most developed in theory and widely used in practice are paired linear or linear multifactor correlation-regression models, when the relationship between the resultant trait and one or more factor traits is studied [83].

The business plans for the main production are mainly related to the change in the specialization of production volumes. Such changes are related to the need for new equipment and other resources, so they require some justification. Business plans for the creation and expansion of agricultural raw materials processing industries are comprehensive. This means that the business plans of processing production are closely related to the development of the production industry of the enterprise, which provides raw materials for such processing production. Business plans of industrial production within agricultural enterprises justify the feasibility and possibility of diversification of production, which allows to reduce risks, but it is possible if the farm has the resources to create industrial production. In turn, the business plan in the field of trade agricultural enterprises often develop: when creating or expanding their own trade network, which is under construction; when renting or buying new outlets. In addition, the combination of biological, technical, technological, environmental, social and economic factors must also be taken into account in business planning in agriculture.

To determine the internal reserves to improve the efficiency of agricultural enterprises and use them in business planning, we propose to conduct a multifactor correlation-regression analysis, which will assess the strength of the impact on the studied performance of each of the factors introduced into the model. An important condition is the lack of functional connection between the factors. Mathematically, the

task is to build an economic-mathematical model that best reflects the relationship of factor characteristics with the effective, ie find the function  $f(X_1, X_2, X_3, \dots, X_n)$ .

So, let's build a multifactor model of the form:

$Y = a_1 \cdot x_1 + a_2 \cdot x_2 + \dots + a_n \cdot x_n$  To perform correlation-regression analysis, it is necessary to form a sample of statistical data (Table 3.3). Let's take the official data on an annual basis. The choice of only annual indicators is justified, as the agro-industrial complex is an industry where the turnover is one year. All absolute indicators are presented by Derzhkomstat in the national currency, so when building a model, it is desirable to translate these values into one of the currencies at the weighted average exchange rate of the relevant analysis period, for example, in UAH million.

Table 2. Statistical data for building an economic-mathematical model

Years	Net profit, thousand UAH	Volume of sold products of agricultural enterprises, thousand UAH	Exports of agricultural products, million US dollars	Agricultural production indices (at constant prices;% to previous year)	Capital investments, thousand UAH
2011	17237851,4	94847770,7	7365,03	97,5	2399879
2012	25252883,8	119095252,7	9864,97	128,3	2654836
2013	26717537,1	155692126,0	14386,68	94,1	2882535
2014	14911163,2	153985319,3	13467,18	120,5	2242264
2015	21391369,2	205274026,8	14102,6	103,8	1711785
2016	101894399,8	349742920,0	14968,8	94,8	3798294
2017	89788758,7	388660677,7	15368,4	109,7	2696378
2018	68239749,8	437436752,6	16924,1	97,0	4343313
2019	70419570,3	504581117,7	18600,5	112,0	8110056
2020	92839910,2	537635030,7	19100,90	102,7	10935956

Source: [84]

We build a multifactor model of the dependence of profit (Y) on the following factors: the volume of sales of agricultural enterprises (X1), exports of agricultural products (X2), indices of agricultural products (at constant prices;% to previous year) (X3), capital investment X4). During the calculations and construction of the correlation-regression model according to table. 2, it is possible to use various modern software tools and services [34, 35]. For example, Microsoft Excel spreadsheet tools, such as the Data Analysis add-in.

The built model has the form:

$$Y = 0.276 \cdot x_1 + 0.0021 \cdot x_2 + 0.142 \cdot x_3 + 0.432 \cdot x_4$$

The coefficient of determination  $R^2 = 0.937$  indicates that the change in  $Y$  by 100% depends on the change in available factors  $Chi$ . The verification of the constructed model for adequacy is performed according to Fisher's criterion. To do this, you need to calculate the estimated value of the criterion and compare it with the tabular value.

The calculated value of the criterion  $F_{rozr.} = 22,58$ , with the tables of critical points  $F_{krit} = F_{RASPOBR}(0,05; k_1; k_2) = 4,534$ , where  $k_1 = m$ ;  $k_2 = nm$  ( $k_1 = 4$ ;  $k_2 = 10 \cdot 4 = 6$ ). Since  $F_{rozr.} > F_{krit}$  ( $22,58 > 4,534$ ), with a probability of 95% we can assume that the model is adequate to the data and can be used to assess the dependence of profits on such factors as the volume of sales of agricultural enterprises, exports of agricultural products, indices agricultural products and capital investment, as well as to forecast the expected net profit for a certain period.

According to the constructed model, the quantitative relationship between profit and each of the factors of the correlation-regression model is estimated (Table 3), ie the correlation matrix is constructed.

The results of the calculations show that there is a strong correlation between performance and factor characteristics. High values of paired correlation coefficients between factors indicate the possibility of multicollinearity of explanatory variables. When testing for multicollinearity, the statistical criterion  $\chi^2$  was used.

Estimated value of the criterion  $\chi^2$  resolution = 8,164, with the tabular value of the criterion  $\chi^2_{crit} = HI2OBR(\alpha; k) = 12,592$ , where  $\alpha = 5\%$  (0,05) - the level of significance;  $k = 0.5 \cdot m \cdot (m-1) = 0.5 \cdot 4 \cdot 3 = 6$ .

There are no indicators of multicollinearity. That is, when building a model it is possible to take into account almost all factors.

Table 3. Estimation of quantitative relationship

Indicator of productive or factorial characteristics	Y	X1	X2	X3	X4
Y	1	0,860	0,686	0,292	0,592
X1	0,860	1	0,889	0,202	0,803
X2	0,686	0,889	1	0,186	0,707
X3	0,292	0,202	0,186	1	0,0886
X4	0,592	0,803	0,707	0,0886	1

To assess the elasticity, we calculate the partial coefficients of elasticity (Table 4), they indicate what percentage of the average profit changes with a change of 1% of the factor  $\chi_i$  at a fixed value of other parameters.

Table 4. Calculation of model indicators

Indicator	$y$	$X_i$	$X_2$	$X_3$	$X_4$
The standard deviation	33250986,13	159122085,5	3440,7698	10,924	2837023,14
Coefficient of elasticity	-	1,538	0,009	0,018	0,054
t-statistics	-	2,672	0,57	2,577	2,91

As a result of the research, it can be noted that the volume of net profit of agricultural enterprises has the greatest relative impact on the volume of net profit, followed by capital investments, indices of agricultural products and the value of exports; the coefficients of elasticity of net profit in terms of sales are the largest, and in other indicators are almost the same. Demonstration of this approach to the use of elements of economic and mathematical modeling in the aspect of business planning allows for variation of performance and factor characteristics in the planning process, and also allows to give a reasoned quantitative assessment and, if necessary, predict indicators. The success of the business plan implementation depends on how well the work on its implementation is planned. The process of implementing the plan will be effective if it is divided into stages, the appropriate use of mathematical apparatus and mathematical methods for business process modeling. Thus, economic and mathematical modeling in business planning of agricultural enterprises performs the following main functions: is a tool with which the company can assess the actual results of activities for a certain period; can be used to develop the concept of doing business

in the future; is a tool for attracting financial resources; is a tool for implementing the company's strategy.

Beginning in 1990, Ukraine began to develop a diversified mixed economy based on various forms of ownership and management. But its effectiveness largely depends on the ratio of market and non-market sectors and their interaction. According to world experience, the market sector should be predominant, it should employ the majority of the active population. With its dynamism and high efficiency, it actively influences the non-market sector, ensuring the overall high level of economic development. This gives grounds to say that such an economy is a market economy, the main link of which are enterprises, especially agricultural ones. Specific features of agriculture leave their mark on the activities of organizational forms of management in this area. The main activity of an agricultural enterprise is the production and processing of agricultural products. Since 2014, Ukraine has begun the process of decentralization - the transfer of powers and finances from government to local government, because every inhabitant of a village or city has the right to quality living conditions and infrastructure development that would meet the country's sustainable development. The population can influence the quality of these services only when those responsible for their provision are close. The closest authorities to the population are local governments: village and town councils and their executive committees. Therefore, they must have broad powers and sufficient resources to be able to address all local issues and be responsible for them. One of the main tasks of decentralization reform is to strengthen the role of territorial communities by giving them the right to dispose of lands that are located both within and outside settlements. The issue of decentralization of powers is reflected in the Concept of reforming local self-government and territorial organization of power in Ukraine, approved by the Order of the Cabinet of Ministers of Ukraine № 333-r of April 1, 2014. It states that one of the urgent problems in the development of local self-government is overcoming its detachment from resolving issues in the field of land relations. To solve it, it is proposed to provide local governments with a basic level of authority in resolving issues of construction (allotment of land, issuing building permits, commissioning of

buildings), determining the material basis of local government property, including land owned by territorial communities, settlements, cities (communal property), and the appropriate tax base, as well as giving territorial communities the right to dispose of land resources within their territory, pool their property and resources through cooperation of territorial communities to implement joint programs and more effective public services adjacent territorial communities.

Ukraine has always been seen as a territory of great agricultural potential, regardless of which empires it was part of. At the end of the Soviet Union, despite the relatively high level of industrialization, Ukraine was called nothing more than the breadbasket of the Soviet Union. Ukrainian peasants have always been the main donor to cities, which expanded especially actively in the second half of the 20th century. Despite high employment in collective farm production, urbanization was fairly rapid at the time, but since the early 1990s it has virtually stopped. Ukraine is in a protracted economic crisis, cities have lost much of their traditional economy and their need for new labor has fallen sharply. In this situation, the Law of Ukraine "On the Priority of Rural Social Development and the Agro-Industrial Complex in the National Economy" (Vidomosti Verkhovnoi Rady SSR (VVR), 1990, № 45, p. 602) [34] was adopted at the state level, but this did not lead to significant positive changes. The main reason is the "disparity" in prices for industrial and agricultural goods, which has led to weak financial support for agricultural producers from the state. As an explanation, this is the reason given by the huge level of state subsidies for agriculture in the EU, which on the one hand was effective, but on the other hand quite large subsidies to agriculture in the EU did not lead to sustainable rural development, stopping their extinction. Research conducted in European countries in recent years and the desire of governments to solve the problem of development of their entire territory, not just large cities, have led to a change in approaches to rural development. While the old policy focused on equalization, income and the competitiveness of farms, the new policy focused on the competitiveness of rural areas, the development of local initiatives, and the use of resources not previously used. Land resources are a significant part of the material base of the community, [30] and they should not be limited to settlements.

Village, township and city councils must dispose of land located outside settlements. The importance of the use of land by agricultural enterprises is that decentralization and the formation of united territorial communities (UTC) primarily affects rural, urban and urban, cities of district importance. As a result of the formation of UTC, lands of agricultural enterprises for the first time have the opportunity to converge with urban areas, because in Ukraine will create communities where there are rural and urban settlements and where cities will have a direct impact on rural areas. Rural UTCs created around villages receive powers that were not previously inherent in village councils and resources that are large enough to accelerate their growth if used most efficiently [32].

The main activities in the decentralization of land of agricultural enterprises are (Fig. 2):

- coordinated policy on the spatial development of rural areas, and with them the land of agricultural enterprises on the basis of a territorially oriented approach, taking into account the standards of the EU and OECD member countries;

- effective management to ensure long- and medium-term planning of development of territories and communities, decentralization of power, development of an effective system of local self-government, approval of basic social standards;

- strong institutions for systematic educational, methodological and explanatory work on decentralization of power in Ukraine, development of a network of organizations, mechanisms and tools that promote effective work of private and public structures in rural areas, maximum development of electronic services for institutions and rural population ;

- diversification of the rural economy and organization of production according to European principles of family farms, small agricultural enterprises and private farms based on private property, as the basis of the agrarian system of Ukraine, promoting cooperative models and other modern forms of production, supporting local producers, promoting the expansion of the range of production products and increasing the types of services provided;

- infrastructure development. Predictable, accessible and stable financing of projects in this regard, wider use of partnerships between the public, private and public sectors, planned, systematic and high-quality preparation of development projects;
- socially responsible business to encourage and create mechanisms to improve social and corporate culture, business responsibility;

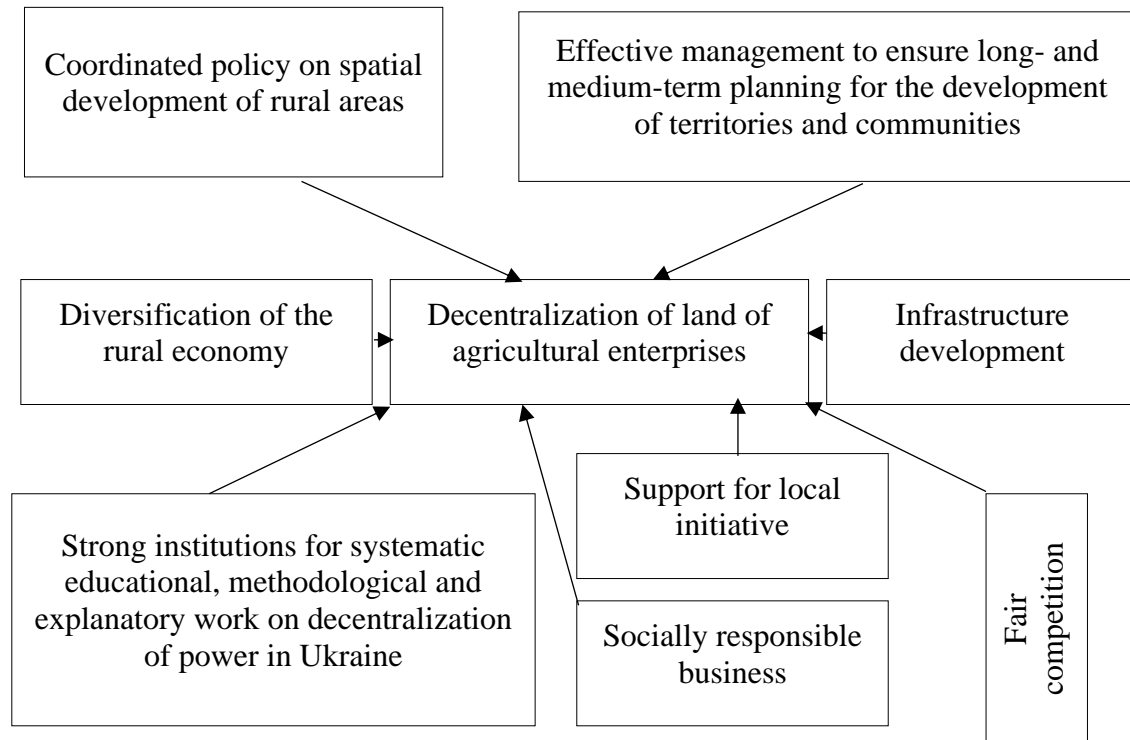


Fig. 2. Directions of decentralization of land of agricultural enterprises

- fair competition - access of producers to financial and natural resources;
- support of local initiative - orientation of citizens in rural areas on early use of the potential of territories.

To increase the efficiency of using the potential of agriculture in Ukraine requires:

- development of programs for the development of energy-saving cooperatives in order to ensure the production of energy for the rural population and fuels and lubricants for enterprises;
- creation of state programs to support private farms that keep dairy cattle (3 or more cows);
- promoting the development of small processing enterprises in rural areas [75,



p. 123].

Decentralization is the process of transferring power and financial resources from the central to the lower levels of government, such as regions, provinces, districts and municipalities.

Effective decentralization is not the transfer of authority from one body, the head of which is appointed in Kyiv, to another body with the same leadership. Decentralization aims to create a mechanism of government that would address all important issues on the ground with the active participation of residents without undue interference from the executive branch. Urban integrated communities, by combining urban and rural areas, extend the positive impact of cities to adjacent rural areas and bring newer approaches to development. When planning their own development, such communities inevitably face the issue of rural development and begin to apply to such development the approaches that are now widely implemented in the European Union at the level of EU policy and at the level of national policy. Agrarian enterprises in the conditions of decentralization inevitably have a way to qualitative positive changes in the rational use of land in order to comply with such a new policy as: increasing the competitiveness of rural areas; development of local initiatives, use of resources that have not been used before; innovative development of entrepreneurship.

To increase investment in the agricultural sector and in particular in the agro-industrial complex, it is necessary to create favorable economic conditions, which includes the introduction of a system of measures aimed at improving the investment climate, ensuring transparency and stability of legislation in the field of investment and taxation; reforming the tax system by reducing the total number of taxes and reducing the rates of some of them, the elimination of economically unjustified benefits. Legal regulation of foreign investment should be raised to the level of world standards. To ensure the efficient use of investments in the agro-industrial complex, it is necessary to provide state support, in particular, the creation of favorable conditions for investments related to scientific, scientific and technical and innovative activities, including the focus on alternative energy sources.

Unfortunately, the slow pace of development of alternative bioenergy from the savings resources of the agricultural sector is due to a number of reasons:

- Lack of a clear state policy on bioenergy and the current state program for the development of alternative bioenergy;
- weak financial and economic incentives for the implementation of bioenergy projects and a significant degree of risk for investors;
- lack of domestic producers of technologies and innovative technological support for energy and biogas production;
- the need to import technologies for energy production from non-traditional sources;
- insufficient funding for research and implementation of new technologies in the field of unconventional energy;
- weak infrastructure for technological operations with biomass, biofuels;
- lack of technical conditions, norms and standards for biofuels;
- Insufficient awareness of potential consumers about the use of biofuels and bioenergy technologies.

To overcome these obstacles and the successful development of bioenergy to ensure national security requires:

- at the state level to establish clear goals for the development of alternative energy and to consolidate them with relevant regulations;
- provide financial incentives to agricultural enterprises by introducing a mechanism to simplify lending provided for the purchase of bioenergy heat generating equipment;
- to subsidize the cultivation of energy crops and the processing of raw materials and waste of agricultural origin to meet the needs of the state in non-traditional energy sources;
- stimulate demand for the production and consumption of biofuels and electricity from their biomass.

Technological security of the agricultural sector is aimed at intensive scientific, technological and innovative development of all spheres of agricultural production and,

due to this, to ensure the national security of Ukraine. Due to the emergence of clear threats to the country's security in the energy sector, the agricultural sector, as the main direction of national production, should become a key generator of energy sources. This is possible due to the technological re-equipment of agriculture and coordinated activities of agricultural producers, government agencies and representatives of the fuel and energy sector in accordance with clearly defined priorities for the development of renewable energy in Ukraine.

To increase the efficiency of using the potential of agriculture in Ukraine requires:

- development of programs for the development of energy-saving cooperatives in order to ensure the production of energy for the rural population and fuels and lubricants for enterprises;

- creation of state programs to support private farms that keep dairy cattle (3 or more cows);

- assistance in creation within the process of decentralization development of rendering of consulting services on the organization of cooperatives of service type;

- development of investment plans for rural development;

- promoting the development of small processing enterprises in rural areas.

#### **4 Research of tsanna and strategic prospects of agricultural complex development of Ukraine**

Given the severity of the problem of agro-industrial complex development, Ukraine lags far behind developed countries in its solution, insufficient number of studies on the specifics of agriculture and food industry, especially in the formation of a paradigm of sustainable development. Identifying the potential in this area will allow us to talk about the prospects for the formation of agricultural development through measures to ensure a harmonious combination of economic, social, legal and environmental principles of development of the agro-industrial sector.

Today, the agro-industrial complex of Ukraine is one of the most promising sectors of the economy. In addition to being one of the few sectors that show growth, it also ensures the preservation of national identity and support for rural development. The majority of the population in rural areas work in agriculture, as employees of enterprises, farms or on their own subsidiary plots.

As of 2020, out of 41.7 million people living in Ukraine, the rural population was over 12.8 million (Table 1).

Despite the tendency to reduce it due to urbanization processes in the country there is a shortage of skilled labor in agriculture. The share of the rural population is 30.7% of the total majority, but only 30% of the rural population is of working age. It should be borne in mind that part of the population is registered in rural areas and works in cities.

Despite a significant part of the rural population as of 2019, only 3 million workers worked in this industry. During 2015-2019, 440-450 thousand people worked stably in the food industry (Table 2).

Table 1. Permanent population, thousand people

	2016 <sup>1</sup>	2017 <sup>1</sup>	2018 <sup>1</sup>	2019 <sup>1</sup>	2020 <sup>1</sup>	Deviation, (+,-)
Total	42590,9	42414,9	42216,8	41983,6	41732,8	-858,1
men	19717,9	19644,6	19558,2	19455,3	19343,5	-374,4
women	22873	22770,3	22658,6	22528,3	22389,3	-483,7
Rural population	13244,7	13171,4	13084,6	12965,7	12832,2	-412,5
men	6254,2	6225,9	6194,4	6148	6093,5	-160,7
women	6990,5	6945,5	6890,2	6817,7	6738,7	-251,8
Rural population aged 16-59	7855,4	7792,1	7707,6	7605,9	7495,4	-360
men	3977,8	3945,2	3905,4	3858,5	3807,4	-170,4
women	3877,6	3846,9	3802,2	3747,4	3688	-189,6

<sup>1</sup> Excluding the temporarily occupied territory of the Autonomous Republic of Crimea and the city of Sevastopol. Calculations (estimates) of the population were made on the basis of available administrative data on state registration of births and deaths and changes in registration of residence.

Source: systematized by authors based on [85]

The problem of employment in rural areas can be solved by diversifying agricultural production and creating small processing enterprises in rural areas.

Table 2. Number of employed population by type of economic activity, aged 15-70 years, thousand people<sup>1</sup>

	2015	2016	2017	2018	2019	Deviation, +, -
Total	16443,2	16276,9	16156,4	16360,9	16578,3	135,1
Rural, forest and fish household	2870,6	2866,5	2860,7	2937,6	3010,4	139,8
Industry	2573,9	2494,8	2440,6	2426,0	2461,5	-112,4
	440,2	490,2	430,2	442,2	451,2	11
%						
Total	100,0	100,0	100,0	100,0	100,0	X
Agriculture	17,5	17,6	17,7	18,0	18,2	0,7
Industry	15,7	15,3	15,1	14,8	14,8	-0,9
including food production	3,1	3,2	3,3	3,4	3,2	0,1

Source: systematized by authors based on [85]

The number of employees in the agro-industrial complex during 2015-2019 tended to decrease, which was caused primarily by the modernization of production in both agriculture and processing industry (Table 3).

Table 3. Number of employees in the agro-industrial complex of Ukraine, thousand people

	2015	2016	2017	2018	2019	Deviation, +,-
Total	5930,0	5849,6	5844,9	5999,5	6014,9	84,9
Agriculture, forestry and fisheries	569,4	583,4	558,1	545,7	523,7	-45,7
including agriculture	502,7	515,0	490,9	481,4	463,2	-39,5
Industry	2241,4	2168,4	2142,6	2101,4	2008,4	-233
including food production	319,5	312,5	322,3	321,5	310,5	-9
%						
Total	100,0	100,0	100,0	100,0	100,0	X
Agriculture, forestry and fisheries	9,6	10,0	9,5	9,1	8,7	-0,9
including agriculture, hunting	8,5	8,8	8,4	8,0	7,7	-0,8
Industry	37,8	37,1	36,7	35,0	33,4	-4,4
including food production	5,4	5,3	5,5	5,4	5,2	-0,2

Source: systematized by authors based on [85]

The amount of wages in the agro-industrial complex of Ukraine is lower than the average level in the country. This is especially true in agriculture, where its level is only 84% of the average salary in Ukraine (Table 4).

Table 4. Average monthly nominal wages of full-time employees in the agro-industrial complex of Ukraine, hryvnias

	2015	2016	2017	2018	2019	Deviation, +,-
Total	4195	5183	7104	8865	10497	6302
Agriculture, forestry and fisheries	3309	4195	6057	7557	8856	5547
including agriculture, hunting	3140	3916	5761	7166	8738	5598
Industry	4789	5902	7631	9633	11788	6999
including food production	4184	5182	6756	8338	9986	5802
As a percentage of the average monthly nominal wage of full-time employees in the economy as a whole						
Total	78,9	80,9	85,3	85,2	84,4	5,5
Agriculture, forestry and fisheries	74,8	75,6	81,1	80,8	83,2	8,4
including agriculture, hunting	114,2	113,9	107,4	108,7	112,3	-1,9
Industry	99,7	100,0	95,1	86,5	95,1	-4,6

Source: systematized by authors based on [85]

Simultaneously with the decrease in the number of employees in the agro-industrial complex, the level of wages is growing. However, the employment of rural residents

remains unresolved. The volume of capital investments in the agro-industrial complex of Ukraine during 2015-2019 increased more than 2 times, which indicates the interest of investors in this sector of the economy. Thus, in 2019 the volume of capital investments in the agro-industrial complex exceeded UAH 120 billion, which is more than UAH 85 billion. more than in 2015 (Table 5).

Table 5. Capital investments by types of economic activity, million hryvnias

	2015	2016	2017	2018	2019	Deviation , +,-
Total	273116	359216	448462	578726	623979	350863
Agriculture, forestry and fisheries	30155	50484	64243	66104	59130	28975
including agriculture, hunting	29310	49660	63401	65059	58555	29245
Industry	87656	117754	143300	199896	254196	166540
including food production	13548	21291	18927	30213	31889	18341
%						
Total	100,0	100,0	100,0	100,0	100,0	X
Agriculture, forestry and fisheries	11,0	14,1	14,3	11,4	9,5	-1,5
including agriculture, hunting	10,7	13,9	14,1	11,2	9,4	-1,3
Industry	32,1	32,8	32,0	34,5	40,7	8,6
including food production	5,0	5,9	4,2	5,2	5,1	0,1

Source: systematized by authors based on [85]

However, the further development of agriculture requires additional investment in the renewal of production. Priority areas of work to improve investment in Ukraine's agro-industrial complex should be:

- increasing the volume of attracting foreign investment in the agro-industrial complex through constant monitoring of proposals by potential investors, establishing channels of communication with international financial institutions and organizations;
- support of the most investment-attractive projects and providing comprehensive incentives for their implementation by state institutions;
- implementation of measures to improve the mechanisms of activity of executive bodies and local self-government bodies of the region regarding the practical implementation of the European and Euro-Atlantic integration programs of the state;
- establishing international cooperation of regions and individual territorial communities of the regions with foreign countries in the framework of interregional

and cross-border cooperation in the field of foreign economic activity in the field of agriculture.

- promoting the intensification of foreign economic activity of enterprises, institutions and organizations located in certain regions, and their integration into the globalized world economic space.

Despite the difficult socio-political situation in the country, agricultural production has tended to increase in crop production, livestock is stagnant. The decrease in livestock production is most observed in households (Table 6).

Table 6. Agricultural products by categories of farms, at constant prices in 2016;  
millions of hryvnias

	2015	2016	2017	2018	2019
Farms of all categories					
Agricultural products	596832,8	634433,1	620475,6	671294,0	680982,4
crop products	453016,9	494461,9	480157,0	529347,5	538705,6
livestock products	143815,9	139971,2	140318,6	141946,5	142276,8
Enterprises					
Agricultural products	367738,8	403244,7	391015,8	437998,6	449806,3
crop products	299369,3	336588,1	323724,5	367688,1	376789,7
livestock products	68369,5	66656,6	67291,3	70310,5	73016,6
including farms					
Agricultural products	55009,4	64306,1	63277,2	73181,7	79053,0
crop products	52312,9	61528,1	60491,7	70214,1	75809,2
livestock products	2696,5	2778,0	2785,5	2967,6	3243,8
Households					
Agricultural products	229094,0	231188,4	229459,8	233295,4	231176,1
crop products	153647,6	157873,8	156432,5	161659,4	161915,9
livestock products	75446,4	73314,6	73027,3	71636,0	69260,2
Produced agricultural products per capita, UAH					
Farms of all categories	13930	14867	14604	15881	16203
enterprises	8583	9450	9204	10362	10703
households	5347	5417	5400	5519	5500

Source: systematized by the author on the basis of [85]

Only the development and implementation of more effective programs to support farming and personal farms will be able to address the development of the livestock industry.

The basis of agricultural products is the production of crop products, which is one of the most export-oriented crops and the cultivation of industrial crops based on oilseeds (Table 7). These crops are raw materials for the agro-industrial processing industry - distilleries, oil refineries and bakeries.



Table 7. Agricultural products by type, at constant prices in 2015, UAH million

	2015	2016	2017	2018	2019
Product	596832,8	634433,1	620475,6	671294,0	680982,4
rural	453016,9	494461,9	480157,0	529347,5	538705,6
farms	193390,3	211762,4	198633,1	225618,7	239728,2
product	149263,1	172100,4	167109,5	190580,1	194847,6
crop production	77346,2	79821,3	79901,1	80896,6	77753,1
cereals and legumes	8353,5	7793,8	8058,8	9677,3	14564,1
technical crops	17899,7	17935,5	16984,9	17144,5	8618,2
potatoes, vegetable and melon food	6764,0	5048,5	9469,5	5430,3	3194,4
fruit and berry crops, grapes	143815,9	139971,2	140318,6	141946,5	142276,8
fodder crops	70153,8	70294,1	69802,1	72593,6	74165,4
other crop products	47320,7	46279,7	45816,9	44813,7	42978,0
product	19498,0	17548,2	18022,0	18729,2	19362,7
livestock	55,0	50,3	47,9	46,8	42,6
	%				
Rural products	100,0	100,0	100,0	100,0	100,0
farms	75,9	77,9	77,4	78,9	79,1
product	32,4	33,4	32,0	33,6	35,2
crop production	25,0	27,1	26,9	28,4	28,6
cereals and legumes	13,0	12,6	12,9	12,1	11,4
technical crops	1,4	1,2	1,3	1,4	2,1
potatoes, vegetable and melon food	3,0	2,8	2,7	2,6	1,3
fruit and berry crops, grapes	24,1	22,1	22,6	21,1	20,9
fodder crops	11,8	11,1	11,2	10,8	10,9
product	7,9	7,3	7,4	6,7	6,3
livestock	3,3	2,8	2,9	2,8	2,8

Source: systematized by authors based on [85]

The general structure of agricultural production during the study period tended to change, namely the share of households in both crop and livestock production tended to decline (Table 8). This trend is especially noticeable in animal husbandry as milk and meat production has decreased. Intensification of state support in the field of animal husbandry should focus on personal farms.

According to Deri Zh.V. modern personal peasant economy should become a powerful driver of the circular economy in the future due to the existing potential for self-sufficiency and development [86]. After all, subsidizing large livestock farms is more costly than supporting OSG. In order to form the raw material base for dairy plants, it is necessary to implement state and regional programs to support high-marketable OSG and FG - milk producers (which keep more than 3 dairy cows).

Table 8. Structure of agricultural products by categories of farms at constant prices in 2016; interest to the total

	2015	2016	2017	2018	2019
Enterprises					
Agricultural products	61,6	63,6	63,0	65,2	66,1
including					
crop products	66,1	68,1	67,4	69,5	69,9
livestock products	47,5	47,6	48,0	49,5	51,3
including farms					
Agricultural products	9,2	10,1	10,2	10,9	11,6
including					
crop products	11,5	12,4	12,6	13,3	14,1
livestock products	1,9	2,0	2,0	2,1	2,3
Households					
Agricultural products	38,4	36,4	37,0	34,8	33,9
including					
crop products	33,9	31,9	32,6	30,5	30,1
livestock products	52,5	52,4	52,0	50,5	48,7

Source: systematized by authors based on [85]

The shortage of milk and livestock products has led to a decrease in the production of dairy processing plants and meat plants (Table 9). In physical terms, the production of most food products tended to decline, except for the production of oil and confectionery.

The Association Agreement also encourages reforms in Ukrainian legislation to bring it into line with EU law, which in the long run will mean equal treatment of Ukrainian goods alongside EU goods throughout the EU's internal market. Ukraine's gradual adoption of EU legislation and standards in the field of production and services, recognized at the international level, will allow Ukraine to more easily export its products not only to the European Union but also to other countries [87, p. 11].

The problem of expanding export opportunities and developing the export potential of enterprises is complex and multi-vector. Its solution requires a systematic approach to improving the management of foreign economic activity of the enterprise and the implementation of a set of organizational, economic, managerial and technical-technological measures that will strengthen the competitive advantage of the enterprise in domestic and foreign markets. The main aspect of this problem is to identify sources of renewal of export potential, finding levers to stimulate its development.

Table 9. Production of basic products of the food industry of Ukraine

Name of products according to the Nomenclature of industrial products (NPP)	Unit of measurement	2015	2016	2017	2018	2019	Deviation, +, -
Beef and veal	thousand tons	50,0	59,1	58,5	56,3	55,8	5,8
Pork is fresh or chilled	thousand tons	235	238	228	223	226	-9
Chicken, chicken, fresh or chilled	thousand tons	326	295	320	267	249	-77
Tomato juice	million liters	44,1	44,2	44,2	47,3	45,4	1,3
Apple juice	million liters	86,1	74,6	74,0	106	101	14,9
Mixtures of fruit and vegetable juices	million liters	189	187	187	184	189	0
Sunflower oil and its fractions	million tons	3,7	4,4	5,4	5,1	5,8	2,1
Milk and cream	thousand tons	461	467	464	443	435	-26
Butter with a fat content of not more than 85%	thousand tons	101	102	108	105	91,6	-9,4
Fresh unfermented cheese	thousand tons	67,8	70,2	68,2	72,6	64,0	-3,8
Wheat flour or wheat-rye	million tons	2,1	2,0	2,0	1,7	1,7	-0,4
Bread and bakery products	million tons	1,2	1,2	1,1	1,0	0,9	-0,3
Refined white sugar beet	million tons	1,5	2,0	2,0	1,8	1,5	0
Chocolate	thousand tons	16,5	16,5	18,6	22,2	24,7	8,2
Chocolate candies	thousand tons	59,5	52,3	53,3	53,4	66,6	7,1
Vodka with an alcohol content of not more than 45.4%	million liters of pure alcohol	74,0	66,2	54,4	50,9	47,7	-26,3

Source: systematized by authors based on [85]

The growth of exports during the study period indicates the gradual integration of Ukraine's agro-industrial complex into world food markets (Table 10). Despite the decline in animal husbandry, Ukraine is currently one of the largest exporters of

chicken to world markets. Although the basis of exports are cereals, which would be more appropriate to process in Ukraine for alcohol and bioethanol.

Table 10. Commodity structure of exports of agricultural and food products,  
thousands of US dollars

Code and name of goods according to UKTZED	2015	2016	2017	2018	2019
Total	14563144,5	15281802,6	17756854,1	18611810,5	22144180,2
I. Live animals; products of animal origin	823434,9	775036,9	1108757,0	1210638,3	1277015,8
01 live animals	25639,9	30903,4	45708,8	45786,6	62547,7
02 meat and edible offal	377668,3	387791,9	531240,1	645982,3	711895,1
03 fish and crustaceans	12994,8	17007,3	26376,9	24981,4	33637,5
04 milk and dairy products, poultry eggs; natural honey	386477,3	330521,4	494207,3	480947,4	453877,2
II. Products of plant origin	7971492,5	8093693,7	9215707,9	9886060,4	12914543,1
07 vegetables	97214,6	152647,3	235369,3	235682,7	184515,0
08 edible fruits and nuts	154083,5	148221,9	195287,3	228564,1	260112,2
09 coffee, tea	10595,7	14088,4	13610,0	12059,2	11709,0
10 grain crops	6057490,0	6073915,3	6501134,3	7240558,1	9633333,9
12 seeds and fruits of oilseeds	1475455,6	1534995,1	2060121,4	1954149,8	2563242,3
III. 15 Fats and oils of animal or vegetable origin	3299799,1	3962975,8	4605666,2	4496511,0	4732237,5
IV. Ready-made food	2468418,0	2450096,2	2826723,0	3018600,8	3220383,8
16 meat and fish products	12467,5	14323,8	15551,3	21747,0	22842,6
17 sugar and sugar confectionery	169508,2	352008,4	417349,4	366878,1	254389,7
18 cocoa and cocoa products	187263,1	162209,1	183736,2	204076,5	204586,8
22 alcoholic and non-alcoholic beverages and vinegar	183608,0	163813,5	209235,6	229841,7	210822,0
24 tobacco and industrial tobacco substitutes	350796,0	321816,0	355728,8	398709,1	437606,2

Source: systematized by authors based on [85]

The basis of imports of agricultural products are primarily critical imports, such as cocoa, fish, alcoholic beverages, olive and other oils not produced in Ukraine, as well as citrus (Table 11). The reduction of sugar beet crops has led to a shortage of sugar, some of which is also imported mainly for the needs of the food industry.

The development of agro-industrial processing enterprises is characterized by differentiation by sub-industry due to a number of reasons, such as the efficiency of

capital use, labor resources, as well as economic efficiency of production and the emergence of new products.

Table 11. Commodity structure of imports of agricultural and food products,  
thousands of US dollars

Code and name of goods	2010	2015	2016	2017	2018	2019
according to UKTZED	5763546,5	3484432,3	3891066,8	4301209,0	5055458,1	5736028,5
Total	1241970,6	548170,2	626279,1	731549,6	917988,8	1071472,8
I. Live animals; products of animal origin	67519,9	59701,1	57981,0	57432,5	71823,6	76639,9
01 live animals	458116,9	99338,4	80773,4	112024,7	167663,2	158603,9
02 meat and edible offal	568561,8	291101,6	409947,9	455444,5	549534,7	644617,7
03 fish and crustaceans	135589,0	79777,4	59489,5	84884,5	106458,0	169492,1
04 milk and dairy products, poultry eggs; natural honey	1563903,1	1146186,3	1284816,5	1368027,1	1529221,1	1794636,6
II. Products of plant origin	73875,7	19289,5	22437,7	27164,9	33977,0	40905,9
06 live trees and other plants	129973,8	62806,6	81654,7	75995,2	106191,3	212383,8
07 vegetables	733344,8	467066,2	476179,7	477254,8	526707,0	673160,7
08 edible fruits and nuts	234125,0	185770,9	187759,9	194133,8	209046,6	222433,8
09 coffee, tea	145583,5	154707,7	148799,7	176756,1	191116,7	180817,4
10 grain crops	178934,4	214991,7	319518,3	358269,9	397429,2	400839,7
12 seeds and fruits of oilseeds	451609,0	182338,9	245957,3	266616,4	267350,2	253298,1
III. 15 Fats and oils of animal or vegetable origin	2506063,8	1607736,9	1734013,9	1935015,9	2340898,0	2616621,0
IV. Ready-made food	100504,0	42451,8	61724,7	82072,3	97280,7	127411,1
16 meat and fish products	231453,6	34792,8	56190,7	47591,0	67116,7	70485,4
17 sugar and sugar confectionery	407374,4	193530,8	217083,1	236206,4	306699,2	327139,7
18 cocoa and cocoa products	125926,5	85551,5	88409,9	117821,5	153608,4	200744,6
19 finished grain products	270557,7	233638,9	289530,8	372829,9	489773,3	533060,2

Source: systematized by authors based on [85]

Based on the analysis of these factors there is a phenomenon of differentiation of industry development - the process of enterprise development in terms of efficiency of assets, equity, labor resources, production efficiency and the possibility of creating new industries. The possibility of product differentiation in the agro-industrial sector

exists throughout the industry value chain. Opportunities for differentiation exist in the following areas:

- logistical support of production units that have a major impact on the quality of products of the organization;

- related to the creation of goods based on the achievements of science and technology, which can improve the design of goods and their characteristics or create new products;

- improvement of production processes that reduce the volume of substandard products, increase the life of the product, improve its functionality;

- provision of logistics systems can speed up deliveries, reduce stocks of finished products;

- actions to improve customer service, marketing research and sales can create such distinctive features as customer support, fast service and taking into account the wishes of the consumer [88, p. 19-20].

Inefficient management and the need to develop new industries require restructuring at agricultural enterprises. The following algorithm should be used to study the degrees of positive or negative influence of factors on the effectiveness of restructuring in agricultural enterprises:

$$C_B = F * n,$$

where F is the strength of the influence of positive (negative) factors from 5 to -5;

n is the probability of maintaining this factor in the medium and long term (from 0 to 1) [89].

The key tools of the mechanism for ensuring the development of the agro-industrial complex should be:

1. development and approval of relevant programs for the priority development of individual industries that are able to produce products competitive in globalized markets (alcohol, oil and dairy industries);

2. development of cooperation in the field of financing of innovation and investment projects by state, enterprises and potential investors;

3. creation of normative-legal, organizational, financial-economic, informational, personnel on scientific-project support of development of agro-industrial sphere;

4. development of criteria for evaluation and implementation of monitoring the implementation of projects, programs and agreements in the field of innovative development of agro-industrial formations [90].

A positive example for the agro-industrial processing industry is the creation of new industries - the production of biogas, bioethanol and biodiesel. In previous years, due to a lack of sugar beet supplies, some sugar factories were understaffed and some could not even start. It is most expedient for sugar processing organizations to introduce the practice of signing preliminary contracts with agricultural formations for the purchase of sugar beets. Sugar production produces a significant amount of by-product in the form of pulp and molasses, this product is the most productive for biogas production, which in the future can be used in sugar production as an energy resource or processed into electricity with subsequent sale at a green tariff to the general grid. It should also be noted that the technology of sugar production in most plants is outdated and needs to be updated with deep modernization of the sugar factories themselves.

An illustrative example of effective modernization is the opening in 2019 of the first stage of a biogas power plant with a total capacity of 3.2 MW on the basis of LLC "Yuzefo-Nikolaev AIC". The company has borrowed Dutch technology for biogas production, which allows to process not only agricultural waste, but also secondary material resources of the agro-industrial complex with a transformation factor of more than 75%. It is the only biogas power plant in the country, which is designed and equipped with 65% of domestic technological equipment using European licenses. Most of the equipment was manufactured and designed by the Kozyatyn Machine-Building Division of the Ukrainian Technology Company. Today, the biogas complex processes molasses, hyphae, grain bard, crop residues, silage, and the main raw material is pulp produced by this enterprise and purchased from other sugar factories.

First of all, it should be noted that an essential aspect of biogas production is the use of renewable energy sources, which are often also waste. The use of organic waste

or agricultural raw materials creates an environment for the formation of environmental effects during their transportation, storage and use.

The most significant environmental impact is exerted by raw materials of animal origin. So now, in Ukraine there is an urgent issue - the disposal and safe processing of livelihoods of poultry farms, pig farms and cattle farms. On the other hand, anaerobic recycling of livestock waste (alone or in combination with other co-substrates) can be considered as the best available technology, as recycling in biogas plants can partially reduce environmental problems and has significant economic benefits in the form of decentralized renewable energy production.

The ecological effect of biogas production is ecologically safe processing of organic waste and by-products of animal origin, due to methane fermentation.

In general, we can identify 6 main environmental effects of the introduction of biogas complexes:

waste processing

solving the problem of storage and transportation of raw materials

introduction of alternative energy sources

formation of quality fertilizer

reduction of time during storage and transportation of fertilizers

reduction of greenhouse gas emissions

As indirect environmental effects, we can highlight - the prevention of pollution of groundwater and surface water and soil.

It should be noted that often the implementation of biogas projects can have a socio - economic effect, when the heat from cogeneration plants is sent to heat schools and office buildings.

Consider in more detail the direct environmental effects and benefits of biogas complexes.

1. First of all, biogas plants are an effective way to solve the problems of using agricultural waste, including animal by-products (manure and manure).

Raw materials for biogas production can be waste of both vegetable and animal origin. But the biggest environmental effect is that biogas plants solve the problem of



manure and manure disposal. The conversion of organic residues into biogas is due to a complex of complex biochemical transformations (biomass fermentation). At the exit of such plants, farmers receive environmentally friendly liquid or solid biofertilizers, which do not contain unpleasant odors, helminth eggs, weed seeds and nitrates.

And constant access of organic substances makes possible constant and continuous production of biogas.

## 2. Solving the problem of storage and transportation of raw materials

The introduction of biogas complexes makes it possible not only to process livestock waste, but also not to operate anaerobic ponds. Thus, manure removed from livestock premises should be stored in anaerobic ponds for 6 months in the case of dairy farms or 12 months in the case of pig farms. In addition, the bottom of anaerobic ponds should be lined with a material that prevents manure from entering groundwater.

In addition to being the main source of pollutants in the atmosphere and potentially contaminants of soil and groundwater, ponds and repositories also occupy large areas. Biogas projects allow either to reduce waste storage areas or to abandon this type of manure and manure storage altogether, by supplying them not to open ponds and storage facilities, but to biogas plants, and the accumulated methane will be burned in a cogenerator or flare.

## 3. Production of electricity as a result of combustion of biogas in cogeneration plants - addressing the issues of energy independence of the enterprise and the country

The flexible system of use of energy resources allows to use the received thermal and electric energy as much as possible.

## 4. Fermentation residues formed in the process of biogas production in biogas plants are quality fertilizers that can be sold or used instead of mineral fertilizers.

We should not forget that in order to integrate into the EU, Ukraine must take the following steps:

- to diversify the commodity structure of agricultural exports by increasing the share of value-added products (mainly through the manufacture of finished products, not raw materials);

- branching out of geographical export markets for Ukrainian agricultural

products due to the entry of new countries and a significant expansion of the range of goods already sold abroad primarily through the development of cooperation with the EU;

- expand the range of exporters of agricultural products by increasing the number of small and medium-sized producers and processors who are able to export their products;

- increasing the level of competitiveness of the Ukrainian agro-industrial complex at the expense of state development programs in order to enter foreign markets [91, p. 65].

To ensure investment and innovation development of the agro-industrial complex, it is necessary to first improve the regulatory framework, especially in the field of guaranteeing the rights of national and foreign investors, stimulate the development of agricultural science in research institutions, solve the "painful" land issue. . The described measures will fully contribute to the creation and implementation of an innovative direction of agro-industrial complex development in the conditions of global transformational changes.

The impetus for the development of innovation in agricultural enterprises should be the concentration on the development of science-intensive production technologies, which will bring the industry to globalized food markets and achieve GDP growth in Ukraine. At the same time, it is expedient to pay priority attention to innovative technologies at agro-industrial enterprises, especially in the field of waste processing and production of alternative energy sources.

The introduction of innovative technologies also requires maximizing the production of scientific institutions, deepening the relationship between science and industry through the development of academic entrepreneurship in agricultural universities.

To increase the competitiveness of dairy products of the agro-industrial complex of Ukraine it is necessary to develop measures of general and special nature, namely:

- to introduce a system of control and constant restoration of the production component, in particular with the use of modern technologies in the production and treatment of wastewater,

- application of energy and resource-saving technologies in production processes;

- improving the management of incoming and outgoing information flows (market condition, number of competitors, determining the needs of consumers, etc.) for a more efficient process of managing production and sales;

- apply measures for resource provision and conservation;

- to carry out constant monitoring of the financial condition of the enterprise and management of investment and innovation projects;

- Improving methods of managing the labor potential of organizations, taking into account advanced methods of time management and their impact on work efficiency;

- to develop long-term and short-term strategies with the prospect of entering globalized food markets, development of long-term planning and forecasting of enterprises, improving the management system of organizations;

- Improving methods of stimulating labor in enterprises, methods of technical control of production, continuous training, adherence to technological and industrial discipline, the formation of high culture in the implementation of production.

Therefore, the main directions of development of agricultural enterprises should be:

- development of programs of state support of personal peasant farms and dairy farms in order to form a raw material base for dairy enterprises;

- increase of production capacities of alcohol production at the privatized enterprises of SE "Ukrspirt" due to modernization and launch of distilleries taking into account the focus on the production of bioethanol and biogas;

- development of measures to improve the functioning of the sunflower market in Ukraine with a focus on minimizing the number of intermediaries between oil refineries and agricultural producers;

- development of the practice of creating auxiliary productions at distilleries and sugar factories, as well as at poultry farms for processing the main production waste

into biogas in order to reduce the cost of production and ensure the environmental effect.

The implementation of the proposed measures will help increase employment both in rural areas and in the processing sector of agriculture, achieve an increase in Ukraine's GDP, increase exports and energy security in general.

Choosing the path to integration into the European Union, it is important for Ukrainian society to study not only its 92 strategic initiatives as prospects for ensuring the development of Ukraine's economy, but also the experience of individual countries. After all, each of the members of the European Union has its own history of ensuring innovative development, ie different starting points (conditions), different programs and incentives and, as a result, different results. An analysis of national programs to ensure innovative development in some EU countries has shown that most of these programs are aimed at promoting research and innovation projects in certain sectors of the economy with the possibility of using government financial support instruments.

Currently, the share of innovation-active industrial enterprises in the country does not reach even 20 percent of the total, the cost of innovation compared to 2016 decreased significantly due to negative socio-economic processes in the country, a small part of innovation spending is spent on research. At the same time, most companies purchase equipment, which is mostly imported, although the country has significant scientific potential, which can reduce imports and ensure the development of scientific developments and their implementation in industrial production.

When developing appropriate mechanisms of interaction between research institutions and manufacturing enterprises, it is possible not only to increase the growth of scientific indicators, but also to provide domestic industry with orders in heavy engineering and reduce gross imports in Ukraine with further reducing the cost of innovative projects.

In order to bring the enterprises of the agro-industrial complex to innovative development, it is necessary to take measures on innovative restructuring.

Innovative changes in its technological and organizational structure, in particular in the industry, should become the core component of the innovative restructuring of the agro-industrial processing industry, taking into account:

- technical renewal on the advanced technological base of the main production assets of the leading industrial enterprises of the region, which include budget-forming enterprises, as well as enterprises that are points of economic growth or have the prospect of becoming them;

- deepening the potential of industrial and technological processing and creating conditions for improving the reproductive structure of industry by higher-level technological systems or the introduction of key technologies of higher technological systems in industries classified as lower technological systems;

- introduction of energy and resource-saving technologies;

- increasing the degree of processing of raw materials in production processes at the enterprises of the region;

- linking the processes of vertical integration of organizational forms (at the national and sectoral levels) together with the processes of horizontal integration at the regional level (promoting the formation of production clusters at the regional and intersectoral levels) to create appropriate conditions for decentralized management of subsidiary distribution of rights and responsibilities;

- training of highly qualified personnel, in particular senior management, which provides the necessary training for the introduction of innovative restructuring of industrial enterprises in the region and adaptation to innovative change;

- creation of innovative structures to support the processes of innovation restructuring: technological, industrial parks, innovative business incubators, innovation and venture funds and other structures to ensure commercialization and widespread introduction of science-intensive developments, access to world markets with high-tech competitive [92, p. 207-208].

The development of innovations in the processing industry should be based primarily on the production of alternative fuels, namely biodiesel and bioethanol.

In general, more than half of gas oil consumption in 2019 (63% of the total) accounted for enterprises and organizations in 11 regions of Ukraine. Of these, the share of Dnipropetrovsk region was 9.6%, Poltava - 6.9%, Odessa - 6.6%, Kyiv - 6.4%, Lviv - 6.2%, Kyiv - 5.6%, Kharkiv - 5.4%, Vinnytsia - 4.3%, Zaporizhia - 4.0%, Donetsk and Mykolaiv - 3.8% each.

The most significant increase in the use of gas oils took place in Kyiv (by 17.9%), Chernihiv (by 14.5%), Poltava (by 14.1%), Zhytomyr (by 11.3%) and Ivano-Frankivsk (by 11.1%) areas (Table 12).

Table 12. Use of gas oils (diesel fuel) by selected regions in 2020

	Gas oil (diesel fuel), thousand tons	% to 2016
Ukraine	5148,6	105,7
Vinnytsia	221,7	105,2
Dnepropetrovsk	494,3	104,7
Donetsk	197,6	105,7
Zaporozhye	208,2	101,6
Kyiv	289,7	104,3
Lviv	316,9	102,0
Mykolayiv	194,4	104,6
Odessa	338,3	106,5
Poltava	356,5	114,1
Kharkiv	275,5	103,6
m. Kyiv	329,4	117,9

Source: based on [85]

By the calculations presented in Table 13, it can be concluded that grain processing will meet the needs of the economy in high-octane fuel, attract full capacity of Ukrspirt, increase employment, and get more than 37 million tons of by-products in the form of bards , which is a highly concentrated animal feed and an ideal mineral fertilizer.

Table 13. Calculation of economic feasibility of grain processing

Grain exports, tons 42499000	Potential volume of bioethanol production, l. 15724630000 (11.64 million tons)
Grain exports, billion, dollars \$ 6.8 billion (at the rate of UAH 28.2 / USD 191.76 billion)	Potential cost of processed basic products (average price for biethanol 20.7 UAH / liter) 325.5 billion UAH (\$ 11.5 billion)

The creation of processing plants for the processing of oil into biodiesel, in addition to increasing the gross product, will ensure full energy independence of agriculture (Table 14).

Table 14. Calculation of economic feasibility of oil processing into biodiesel

Oil exports, tons	Potential volume of biodiesel production, t.
5988000	5988000
Oil exports, billion, dollars	Potential cost of processed main products (average price for biodiesel 31 UAH / liter)
\$ 4.6 billion (at the rate of 28.2 / USD 130.1 billion)	UAH 131.736 billion (\$ 4.7 billion)

The development of oilseeds processing for the energy needs of the state economy will not only ensure the energy independence of agriculture in the first place, but will also have the following positive consequences:

- provision of industrial orders, as a significant number of plants for processing is required;
- increasing the level of employment in rural areas (most facilities will meet the needs of fuel, especially in agriculture);
- providing the livestock industry with highly concentrated feed in the form of cake (by-products of oil processing);
- development of the alcohol industry as a producer of alcohol for processing oil into biodiesel;
- additional production of about 600 thousand tons of glycerin for the needs of the perfume industry.

The model of innovation development in the processing industry of the agro-industrial complex should include the following components:

- measures of state planning of priority directions of development of the processing industry of agro-industrial complex;
- measures of state regulation through the improvement of the regulatory framework, the development of the practice of allocations and the creation of a favorable investment climate;
- state incentives through preferential taxation, develop a system of innovation insurance, including through insurance companies;

- to develop the activities of business incubators, innovation centers, technology parks and technology cities;

- development of innovations at the enterprises themselves through the formation of innovation policy, organization of innovation activities, motivation and implementation of controlling measures.

Innovative activity in processing enterprises of agro-industrial complex should be subordinated to achievement of the basic purpose - as much as possible full satisfaction of inquiries of consumers on quantity and quality of the offered production, services at the minimum expenses for their development, introduction and realization. Thus, innovation is a rather complex complex problem that requires the selection of interactive options and their optimization. With the growth of competition in the world and national markets and the development of scientific and technological progress, the introduction of innovations in production is a crucial condition for the sustainable development of modern economic systems. The imperative of a market economy is the introduction of innovations and redistribution of resources from less efficient areas of management to the most efficient under the influence of competition in the market.

In the conditions of globalization processes taking place in the country's economy, in order to reach the desired level of product competitiveness, the following innovative model must be followed:

1. to restructure unprofitable enterprises of the industry;
2. to attract investments in the processing industries of the agro-industrial complex;
3. diversify production with a focus on the production of alternative energy sources;
4. state support of agricultural producers;
5. expanding the range of products and improving its quality [92, p. 212].

In order to form sustainable competitive advantages of enterprises in these industries, it is necessary to approach from the point of view of a systematic approach and carry out a set of measures aimed at:

1. restructuring of inefficient enterprises in the industry;



2. comprehensive state support for agriculture;
3. reorientation from the production of raw materials to the production of finished products;
4. diversification of production;
5. attracting sufficient investment for the development of processing industries.

This set of measures will improve the health of processing enterprises and adapt them to the requirements of globalized agri-food markets.

The development of innovations in the processing industries of the agro-industrial complex in the context of integration of the national economy into the world economic space is one of the priority tasks for the state.

The development of an appropriate organizational and economic mechanism for the creation of an innovative type of entrepreneurial activity, which will overcome the above obstacles to the development of this type of activity, should include the following 4 stages:

1. In-depth research in the field of creating a closed cycle for oilseeds processing, including on the basis of NNVK "All-Ukrainian Research and Training Consortium";
2. Economic substantiation on the basis of the conducted experimental researches of expediency of creation of processing cooperatives on production of biodiesel;
3. Creation of design and estimate documentation for the organization of processing of oil products and restructuring of distilleries on an innovative basis.
4. Development of the state program of development of service cooperatives with provision of the state subsidy of processing branch of agrarian and industrial complex.

Organizational and economic mechanism of innovative development of agro-industrial processing enterprises should include measures to develop research and development documentation of a closed-cycle prototype for oilseeds processing and development of a universal business plan for the operation of service cooperatives for oil processing services for industrial needs agricultural formations. Creation of state support programs for energy cooperatives. Development of components of the

mechanism of a set of measures for the development of energy cooperation in rural areas.

Regulatory regulation of the restructuring of agro-industrial enterprises is currently quite relevant in connection with the economic situation of the state and its integration into the globalized world.

The analysis of the experience of restructuring of agro-industrial enterprises revealed the measures taken in the process of restructuring, which we divided into five groups:

- 1) measures in the production sphere;
- 2) measures in the field of marketing;
- 3) measures in the financial sphere;
- 4) measures in the field of personnel;
- 5) measures in the management system [92].

The list of normative-legal documents concerning normative-legal maintenance of enterprise restructuring is given in table. 15.

Table 15. Regulations in the field of restructuring

Document name Date of acceptance and number	Document name Date of acceptance and number
State Property Fund of Ukraine	
Regulations on the procedure for restructuring enterprises № 667 of April 12, 2002	Regulations on the procedure for restructuring enterprises № 667 of April 12, 2002
Ministry of Economy of Ukraine	
Methodical recommendations for identifying signs of insolvency of the enterprise and signs of actions to conceal bankruptcy or bring to bankruptcy № 10 of January 17, 2001.	Methodical recommendations for identifying signs of insolvency of the enterprise and signs of actions to conceal bankruptcy or bring to bankruptcy № 10 of January 17, 2001.
National Mediation and Conciliation Service	
Regulations on the procedure for determining the parties to a collective labor dispute (conflict), formation of claims of employees or trade unions, consideration of claims of employees or trade unions, decision-making on joining a collective labor dispute (conflict) at enterprises, institutions or organizations solvency or bankruptcy № 493 of 27 October 2003	Regulations on the procedure for determining the parties to a collective labor dispute (conflict), formation of claims of employees or trade unions, consideration of claims of employees or trade unions, decision-making on joining a collective labor dispute (conflict) at enterprises, institutions or organizations solvency or bankruptcy № 493 of 27 October 2003
Regulations on the procedure for conciliation procedures for resolving collective labor disputes (conflicts) in case of insolvency of the owner or his authorized body (representative) № 230 of November 30	Regulations on the procedure for conciliation procedures for resolving collective labor disputes (conflicts) in case of insolvency of the owner or his authorized body (representative) № 230 of November 30

Source: formed on the basis of [93-95].

The documents presented in Table 15 are recommended for enterprises, in each case the enterprise must independently choose certain regulatory, organizational and methodological support, taking into account the existing needs and objectives.

Another obstacle to the restructuring of national enterprises is the imperfection of the tax system. The current tax system creates the conditions under which the optimal from the point of view of management strategy and production economics restructuring schemes are inexpedient from the tax point of view, which forces to resort to compromise schemes.

In addition, during the restructuring of enterprises are faced with the lack of comprehensive organizational and methodological support. This is manifested in the absence of detailed recommendations for the formation of an effective mechanism for restructuring industrial enterprises and the organization of the restructuring process at the enterprise, taking into account its industry specifics [95].

Also, despite the development of the theoretical basis of restructuring, there is a lack of experimentally tested at industrial enterprises methods of change. Therefore, in our opinion, the shortcomings of organizational and methodological support for the formation of an effective mechanism for restructuring industrial enterprises in Ukraine, including meat processing, is one of the obstacles to restructuring.

However, the main obstacle to restructuring is in the field of enterprise management, namely:

- Lack or lack of professional senior managers capable of initiating restructuring. Research shows that most failures in the transformation of industrial enterprises in Ukraine are caused by unprofessionalism, low level of education or inadequate level of education of managers, as only 10.4% of industrial managers and their deputies work in specialties obtained in educational institutions;

- Insufficient knowledge of modern management methods and inability to apply them, which can lead to serious errors in the implementation of transformations;

- inability to use the experience of foreign companies.

Currently, in order to improve the legislation in the field of financial restructuring, the Verkhovna Rada adopted the Law of Ukraine "On Financial

Restructuring", which is designed to overcome the negative effects in the financial sector caused by financial crises in Ukraine's economy and Ukraine's obligations to international financial organizations.

The purpose of the Bill is to create an effective and efficient mechanism for voluntary financial restructuring of debts of Ukrainian enterprises and their pre-trial rehabilitation.

The draft law was developed with the participation of experts from the World Bank and the European Bank for Reconstruction and Development, taking into account international standards and international experience in financial restructuring.

The bill, in particular, defines:

- conditions of participation of the debtor and creditors in the procedure of financial restructuring, as well as participation of the Deposit Guarantee Fund of individuals and state banks in such a procedure;

- basic principles of cooperation between creditors during the financial restructuring procedure;

- the debtor's obligation to provide information and conduct a review of its business activities;

- conditions for the debtor to receive financing during the financial restructuring procedure [96].

Implementation of the Bill will improve the financial and economic performance of debtors in financial difficulties by restructuring their debt, provide debtors with access to finance to resume their economic activities and will contribute to the stability of Ukraine's financial system.

The goals of the bill are:

Accelerate the recovery of the financial and corporate sectors through financial and operational restructuring of non-performing loans.

Preserve viable businesses and jobs.

Accelerate the resolution of bad debts in the banking sector to restore normal access to credit.

Create a reliable and effective mechanism for informally resolving the problem

of "bad" debts between creditors and businesses.

The restructuring procedure under the draft law is initiated with the consent of at least three financial institutions that are parties to the framework agreement, or one financial institution that owns at least 25% of the total debt.

If a temporary administration has been introduced in the creditor bank, such a creditor will be represented in the financial restructuring procedure by the DGF.

In order to avoid undue influence or manipulation of the process by large financial-industrial groups, related parties (debtor company and bank) cannot participate in the restructuring process at the same time.

The financial restructuring procedure involves voluntary rather than mandatory participation of enterprises [96].

Thus, the improvement of regulations on the basis of the Law "On Financial Restructuring" has the following consequences:

1. Reducing the number of problem loans.
2. Allocation of funds for lending to households and the corporate sector.
3. Strengthening, stabilizing and restoring confidence in the banking system.
4. Return of citizens' deposits.
5. Creating effective safeguards and "security guarantees" for banks: businesses and borrowers with bad credit history will not be able to use them.
6. Solving the problem of solvency.
7. Avoid the risk of bankruptcy, and thus return to growth.
8. Preservation and creation of new jobs.
9. Preservation and creation of new jobs by companies that have benefited from restructuring.
10. "Launch" of the economy of Ukraine as a whole.

Currently, a combination of socio-economic and political factors have a very negative impact on the sustainable development of processing industries. First of all, it negatively affects the financial condition of these enterprises.

In order to overcome the negative consequences in the financial sector caused by financial crises in the economy of Ukraine, on June 14, 2016 the Law of Ukraine №

1414 was adopted, which in accordance with its final and transitional provisions came into force three months after its publication ("Voice of Ukraine" , № 13) - 10/19/2016 and lost it three years after the date of recruitment, namely from 10/19/2019. extend the term of this Law in case of successful implementation of such procedures. This legislative act was drafted in accordance with the Letter of Intent of Ukraine (represented by the President of Ukraine, the Prime Minister, the Minister of Finance of Ukraine and the Governor of the National Bank of Ukraine) to the International Monetary Fund (IMF), the Memorandum of Economic and Financial Policy. Memorandum of Understanding, with the involvement of technical support from the European Bank for Reconstruction and Development and the World Bank [96].

This document provides for the possibility of financial restructuring with the consent of the creditor and the company on a voluntary basis, provided that the company's activities will be considered promising.

For the possibility of financial restructuring, the Law № 1414 establishes such mechanisms as deferral of monetary obligations, debt forgiveness, revision of interest rates and other terms of the loan agreement, postponement of certain obligations, provision of new financing, attraction of new investments, transfer of ownership of the debtor's property to the creditor, conversion of debt into authorized capital, reorganization and structuring of business, change of debtor's management or corporate governance structure of the debtor, etc. [96].

The necessary documents for financial restructuring are submitted to the Secretariat for Financial Restructuring. Negotiations on restructuring are carried out without the participation of this body.

Secretariat, in accordance with its tasks:

- resolves administrative and procedural issues related to the financial restructuring procedure, in accordance with the requirements of this Law "On Financial Restructuring" (hereinafter the law);

- prepares and submits to the Supervisory Board reports on the course and results of the financial restructuring procedure;

- organizes and disseminates information on the financial restructuring

procedure;

- develops recommendations for the financial restructuring procedure;
- develops recommendations and requirements to the documents specified in paragraph 7 of part two of Article 14 of this Law;
- creates and maintains its own website, where it places information in accordance with the requirements of this Law;
- logistical and organizational support of the Secretariat is provided at the expense of funds received from business entities (including non-residents), individuals, international financial organizations in the form of grants, gifts and other non-refundable income funds;
- the secretariat is not directly involved in the restructuring negotiations between the debtor and the creditors involved [96].

Despite the prospects of this bill and the presence in the Secretariat of Financial Restructuring of the Arbitration Committee, which is called to resolve disputes in financial restructuring, a large number of creditors will be wary of debt restructuring even if there is a sound business plan. This was caused by the crisis in the financial market, which led to a significant reduction in the number of credit institutions (Table 17).

Table 17. State Register of Financial Institutions, units

	2017p.	2018p.	2019p.	Increase 2019/2017 2019/2018	
I. State Register of Financial Institutions	2125	1993	2024	-101	31
Insurance companies, including:	310	294	281	-29	-13
non-life	271	261	251	-20	-10
life	39	33	30	-9	-3
credit unions	462	378	358	-104	-20
pawnshops	456	415	359	-97	-56
financial companies	809	818	940	131	122
trust companies	2	2	2	0	0
private pension funds	64	64	62	-2	-2
NPF administrators	22	22	22	0	0
II. Other registers	266	246	236	-30	-10
lessors-legal entities	202	183	168	-34	-15
credit bureaus	7	7	7	0	0
insurance / reinsurance brokers	57	56	61	4	5
Separate units	9684	1 889	11449	1765	560

Source: formed on the basis of [97].

Thus, as of December 31, 2019, there were 2,024 financial institutions in the

State Register of Financial Institutions maintained by Natskomfinposlug [97].

Operating credit institutions are trying to maximize their available financial resources and are reluctant to undertake financial restructuring in accordance with the Law. After all, this is quite a risky business, restructuring may not bring a positive result, the time frame for possible repayment of the debt will be shifted in time, and the value of the property of the credited company may not cover the entire debt in case of bankruptcy. Therefore, in addition to the agreed viable restructuring plan, credit institutions need additional reasons to approve the financial restructuring plan.

When restructuring debt in accordance with the current Law, it is advisable to use financial risk insurance, as an additional argument for the lender to agree on the process of financial restructuring, and a financial risk management tool for the company. It is worth noting that financial risk insurance can be used not only for restructuring, but also for ordinary financial activities.

Financial risk insurance is quite developed abroad, but in the practice of economic activity of Ukrainian enterprises is almost not used. Although as of 2019, 271 companies have a license for this type of insurance.

Currently in the scientific literature there is no clear and unambiguous interpretation of the nature of financial risks and identify their place in the enterprise system. Some experts consider financial risks as a separate type of enterprise risk, while other economists believe that these risks are part of other risks - market, investment and so on. The most common today is the definition of financial risk as the risk that arises in the financial activities of the enterprise or financial transactions, based on the fact that in financial enterprise as a commodity are either currency, or securities or funds.

The process of financial restructuring in the application of financial risk insurance involves insurance of currency, investment risks, as well as the risk of loss of profits and the risk of default to the company undergoing restructuring of its partners. In turn, the credit institution can insure the risk of non-repayment of the loan.

This makes it possible to reinsure the risks of both parties. The use of insurance of these risks is possible not only in restructuring, but also in ordinary activities, which



makes it possible to avoid the process of financial restructuring at all.

Financial risk insurance allows companies to compensate for losses due to fire, natural disasters, accidents, bankruptcy of the counterparty, bankruptcy of the counterparty bank, temporary insolvency of the counterparty and other cases provided by the terms of the insurance contract.

Therefore, financial risk insurance can provide a precondition for avoiding financial restructuring if these risks have been insured in advance. And also when conducting financial restructuring to become one of the tools to encourage the lender to agree to debt restructuring, which is quite relevant for the processing industries.

The analysis determined the differentiation of the agro-industrial processing industries. There is a low level of competitiveness of small businesses in this sector of the economy. Low provision of credit resources and high share of unprofitable enterprises. The analysis of formation of own capital of the enterprises is carried out and its basic concentration in 6 largest enterprises of branch is defined. The decline in lending to micro-enterprises in the industry and small organizational and legal entities has been identified. The capacities of the region's distilleries and the prospects of creating auxiliary productions for the production of biogas from bards on their basis have been studied. The volumes of production of the main products of the processing industry of agro-industrial complex of Vinnytsia region, the main part of which is the production of oil, alcohol, sugar and dairy products are analyzed. Increasing the amount of state support for OSG and FG of the dairy direction in order to provide dairy processing enterprises with better raw materials will promote the development of dairy processing enterprises. The main directions of formation of an effective system of support for processing production of agro-industrial complex were focused on creation of effective levers of tax, financial-budgetary, credit and other types of influence on subjects of economic activity in system of agro-industrial complexю

To increase the efficiency of using the potential of the agro-industrial complex of Ukraine it is necessary:

increase the profitability of production by increasing the volume of rapeseed cultivation (taking into account scientifically sound crop rotations), cereals, pigs and

milk. It is also necessary to look for ways to optimize the cost of unprofitable industries, or to introduce a closed production cycle for these industries;

to develop the optimal system of crop rotations (wheat, barley, corn, oats) taking into account the most effective for Ukraine 10-field crop rotation system;

to stimulate the development of production through state programs of rural support, as well as through the "yellow" and "green boxes";

to process oilseeds for biodiesel and cereals for bioethanol.

Thus, the introduction of scientifically sound crop rotation and raw material processing measures will support soil quality, avoid overproduction of grain products, increase export potential and profitability and ensure Ukraine's biodiesel agriculture, and partially reduce gasoline imports through bioethanol production.

## **5 Strategic aspects of formation of the company's product range**

At the present stage of Ukraine's development there are significant structural changes in economic relations. The transition to market conditions is complicated by the problems of sales of goods, as changes in the structure of market demand and its market fluctuations, increasing competition in the market. Thus, the question of development and effective management of assortment policy at enterprises arises. The domestic market is becoming quite attractive for foreign retail chains. To survive in the competition, Ukrainian producers must develop innovative strategies to improve their activities. Therefore, it is no secret that each of the existing companies seeks to take a leading position in the market, as well as be able to maximize profits. It is the right marketing strategy that helps to solve this problem.

Sometimes companies define a business strategy simply as a plan of its high level to achieve specific business goals. Strategic plans are successful when they lead to business growth, a strong competitive position and high financial performance. However, when a high-level strategy fails, the company must either change its approach or prepare to go out of business.

The decision to form or change the product range of the enterprise is preceded by long work related to market analysis, tastes and preferences of consumers, conditions of supply of raw materials, planning and forecasting the results of changes in the product range.

The main approach to the functioning of the marketing management system for the development and implementation of assortment policy can be expressed by giving priority to issues related to streamlining the product range, in the context of determining the hierarchical structure of management decisions. The initial stage of formation of the system of marketing management of assortment policy is development of the corresponding organizational structure which basic principle of construction is application of the approach based on use of methods of strategic marketing that allows to provide realization of strategy, interaction of management optimal range.

Entering the market with a competitive range is only a separate component of the company's work on the range. After mastering the market and consolidating it, it becomes necessary to work systematically to optimize the range, which is a set of measures aimed at systematically improving the structural and economic parameters of the set of goods and services produced in the following areas: sales, new customer groups, improving service, improving the effectiveness of advertising; modification of manufactured products, study of product adaptability; choice of options for the structure of a more profitable range, etc.

Purposeful assortment policy of the enterprise is to establish a structure of assortment, in which the enterprise would be able to occupy a certain market share, provide the planned amount of profit and solve other operational and strategic tasks.

The development of a strategy for the formation of the product range of the enterprise begins with the vision, goals and basis, which explains how the buyer and market forces form the appropriate direction of the product.

Planning of goods / services begins with marketing activities, identifying market segments that meet the strategic objectives of the enterprise. Consumer profiles make it possible to identify the main positions and behavior of consumers, which determine the composition of the product range. In the planning process, we move from broadly defined product categories to detailing the range and lines of individual products and ending with individual units of goods. The stability and sustainability of product plans depends on the field of activity and the rate of change in demand for goods.

The right strategy for the development of the product range can help companies improve their productivity and efficiency, and thus attract customers from competitors who can not achieve this level of productivity.

Many leading domestic and foreign scientists have paid considerable attention to the issue of product range and its formation, namely N. Kubishina [98], A. Troyan [99], E. Didenko [100], L. Balabanova [101], I. Marchenko [102], V. Kardash [103] and others.

Yu. Dernova notes that the marketing strategy is embodied in the program of measures to improve the production and sale of goods in order to ensure high and

sustainable profits [104, p. 68].

According to G. Tarasyuk [105], the formation of the range at enterprises should consist of certain stages, including the structure of the range, the range group and the definition of the expanded range within each group.

S. Garkavenko argues that for the formation of marketing strategy the company needs to clearly define the direction of development, competitive advantages that will form the basis of strategy, growth strategy, competitive strategy, functional marketing strategies. In his opinion, the marketing strategy involves: market segmentation; selection of target markets; product positioning in the market; identification of target competitors; determination of competitive advantages [106].

In our opinion, the formation of a marketing strategy should contribute to the solution of two interrelated tasks. First, the implementation of the current competitive advantages of the enterprise, as well as the creation of conditions for the formation of additional competitive advantages. Secondly, increasing the economic growth of the enterprise and leveling the negative impact of external marketing factors, which is especially relevant today, when all manufacturers are experiencing the negative effects of the global financial and economic crisis and the current recession. The implementation of these tasks reveals the basic importance of competitive strategy. In addition, an effective competitive strategy, in our view, must meet three main requirements:

1. Despite the fact that it is focused on a relatively long period of time (usually 5-7 years), the competitive strategy should be flexible so that the company has the opportunity to make certain adjustments depending on certain changes in the market.

2. Competitive strategy, in its economic essence, aimed at achieving certain results, should not be at the same time excessively aggressive, as in this case it may lead to unpredictable actions in economically stronger companies in the market.

3. The company can expect to get the maximum positive effect from the implementation of strategies, only if it uses at least two competitive strategies.

Taking into account these simple conditions, will allow the company in the future to competently form a competitive strategy that will meet its economic capabilities and strategic goals.

Marketing strategy begins with research. Over the past couple of years, many Western companies have increased their marketing research spending several times. As a result of such research, the company receives detailed answers to the question: who and where buys the product, as well as why it is bought [107].

Four groups of factors should be taken into account when forming the marketing strategy of enterprises [108]:

- trends in demand and external marketing environment (market demand, consumer demand, product movement systems, legal regulation, trends in business circles, etc.);
- the state and features of competition in the market, the main competitors and the strategic direction of their activities;
- management resources and capabilities of the enterprise, its strengths in competition;
- the basic concept of enterprise development, global goals and objectives in the main strategic areas.

The key point in developing a marketing strategy of the enterprise is the analysis of internal and external environment. Analysis of the internal environment allows to identify the capabilities of the enterprise to implement the strategy; analysis of the external environment is necessary because changes in this environment can lead to both the expansion of marketing opportunities and to limit the scope of successful marketing.

Also in the course of marketing research the company needs to analyze the relationship «consumer-product», the peculiarities of competition in the market of the industry, the state of the macro environment, the potential of the industry in the region where the company intends to operate.

Analyzing the above factors, the company must determine the target markets in which it will focus its marketing efforts.

Thus, the formation of marketing strategy will allow the company:

- significantly expand the customer base and increase sales;
- increase the competitiveness of products / services;
- establish a regular mechanism for modifying existing and developing new products;
- create a tool for mass attraction of customers;
- develop an effective pricing and product policy;
- create a mechanism for controlling marketing activities;
- improve the quality of customer service [109].

In addition, the formation of marketing strategy of enterprises will provide a sound methodological basis for management decisions, and form a single apparatus of strategic planning of marketing activities.

Constant changes and constant challenges that accompany the development of the economic component of a modern organization require new approaches to addressing customer needs. Any organization that wants to enter the market and compete successfully with other companies should take this into account when developing the range of consumer needs. It is the needs of consumers that drive business, especially in the retail market, where there is constant fierce competition.

F. Kotler [108], believes that the product range is a set of all assortment groups of goods and product units offered by a particular applicant. According to E. Dichtl, H. Hershgen [110], the range of products - is a set of products, grouped on any basis; the structure of the range is characterized by the share of each type and (or) product name in the total set.

The authors [111] emphasize that the formation of the range is preceded by the development of the assortment concept of the enterprise, which is a directed construction of the optimal assortment structure of the product offer. However, today the strategy of forming the product range for enterprises is a very controversial topic that requires more in-depth analysis and research.

World experience shows that the leaders in competition are the company that is most competent in its assortment policy, knows how to master the methods of its

implementation and has the ability to manage as efficiently as possible. At present, the leaders of Ukrainian enterprises mostly underestimate and underestimate the importance of effective assortment policy, which in turn weakens their role in competition.

It should be understood that the formation of the product range for existing commercial enterprises is taking into account a number of key factors:

First, it is the state of demand for products / services that will attract the attention of consumers.

Secondly, the innovative and technological capabilities of the trading company, which will be a source of increasing competitive advantage.

Third, the expansion of markets for the supply of goods/services, which indicates the ultimate goal of the enterprise.

Therefore, enterprises in the formation and management of the product range must take into account:

- basic needs of consumers and be able to quickly improve and update the product range;
- product range management system with market orientation;
- methods and tools that clearly form the optimal product range;
- a step-by-step action plan to promote goods/services in order to stimulate sales.

The leaders of Ukrainian enterprises should also pay attention to the problems that hinder the innovation mechanism as a component of innovation policy when developing and shaping the product range.

It should be emphasized that the main task of managing the product range of the enterprise is technical and economic, production, financial and marketing market analysis, which together is to determine the internal and external factors of its formation. Criteria and tools for the formation of the optimal range also take into account the price component of internal and external factors of its formation. Internal factors of the assortment policy of the enterprise take into account: technical, technological and investment opportunities; logistical support; organization of business processes. External factors of the assortment policy of the enterprise



determine: the quality and price of the offer; advertising events and product design; forms of promotion and service; width and depth of the range; changing consumer needs; actions of competitors Fig. 1 [112, p. 14-15].

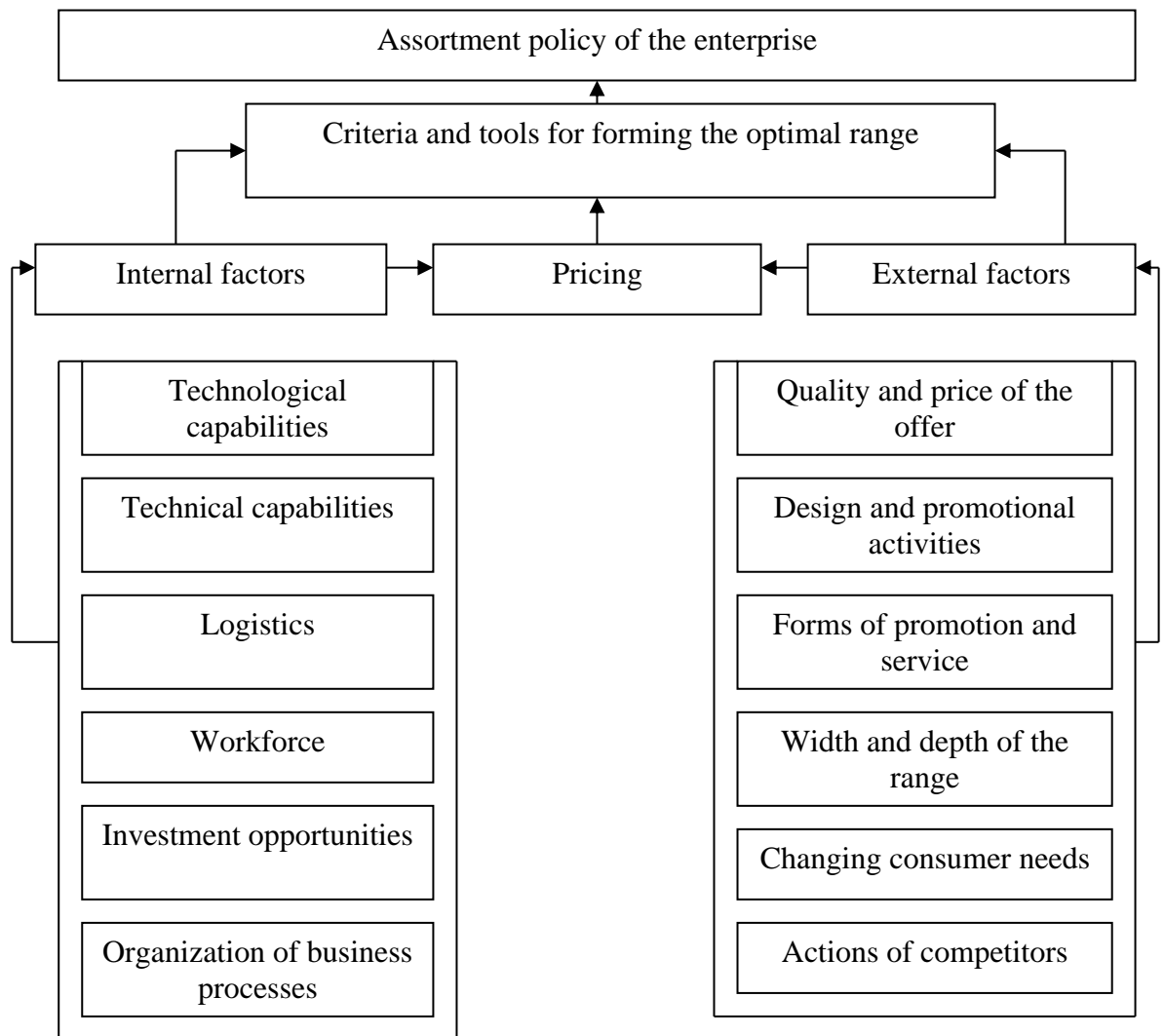


Figure 1. The process of forming the range of the enterprise

Source: compiled by the author for [112, p. 14-15]

It is safe to say that the role of the enterprise in the market is changing: there is a transition of enterprises to active market behavior, the development of assortment policy on the basis of marketing. Its most important element is the revision of the product range, and in some cases a significant restructuring of enterprises.

The main motivating reasons for the changes were market demands – a shift in demand and growth in production costs, increasing demand for new products, respectively, a decrease in goods that were actively sold in previous periods.

Trade is beginning to refocus on products that are in demand and are more profitable. However, the downside of the process was the decline in service levels in both the retail and wholesale networks. Restructuring the assortment policy, commercial enterprises are trying to focus in advance on the volume of products to a particular customer and their group.

Assortment policy of Ukrainian enterprises should take into account the dynamics of factors increasing the purchasing power of the population, consumer demand, behavior of competitors, the general level of prosperity not only in the area where retail space is located, but also the country as a whole.

Consumer demand is the main factor influencing the formation of the range, and is aimed at maximizing the demand of the population and at the same time - to actively influence the demand towards its expansion. Assortment formation and consumer demand in their development are interrelated [105, p. 32].

Thus, the main attention of scientists is focused on the formation of a holistic strategy that can bring together all available at the present stage methods of marketing incentives and product promotion.

Large trading companies are gaining more and more customers, being able to provide them with the highest level of services and a wide range of them. The ability to provide the right range of goods at the lowest possible price and as quickly as possible is important for retailers and is associated with the creation of a perfectly functioning supply chain in which all its individual elements will be perfectly synchronized with each other.

Today, large trading companies provide a competitive advantage in the market due to the pursuit of excellence in the management of supply chains. The appropriate choice of the range of enterprises is aimed at gaining a competitive advantage and is designed to attract a wider range of customers. To do this, determine the appropriate algorithm for combining goods and services that the company intends to offer to potential buyers [113].

Product range – a selection or set of different goods, combined with a certain consumer, trade or production feature. There are industrial and commercial range of

goods. Industrial (production) range of goods – are consumer goods produced by industrial enterprises. The range of goods supplied to wholesale and retail trade enterprises is the range of trade goods.

According to DSTU 3993-2000, the range of goods is a set of goods of different groups, subgroups, species and varieties, which are combined on a certain basis to characterize the composition of the mass in different conditions [114].

The product range is formed at the enterprise as a result of joint work of various divisions: marketing department, sales department, planning and economic department, financial department.

The formation of the range is carried out in several stages:

- decide on the format of the range, the owner or owner of the company decides on what kind of retail business will be engaged. It all depends on the needs and potential of the market, the desire and ability of the owner to engage in this type of business;

- it is necessary to establish the structure of the range in the store. At this stage, you need to determine the quantitative ratio of individual groups of goods. There is also a link between data and store targets and the profitability of groups and subgroups of goods;

- it is necessary to determine the distribution of individual groups, as well as subgroups of goods in the amount of consumer complexes and micro complexes;

- it is necessary to carry out the selection of intra-group range on distinctive features with its connection with a specific retail space, profitability of goods.

Therefore, the formation of the range is designed to create conditions for the company to make the necessary profit. This is due to the fact that decisions on the selection of the range determine the amount of income from trading activities, the cost of circulation (due to different commodity costs), the need for working capital (due to different turnover of individual goods) and other important economic and financial indicators of the enterprise.

Factors that require analysis in the external and internal environment are listed in table 1 [126].

Table 1. Factors of external and internal environment that affect the formation of the product range

Factors of the internal environment	Environmental factors
<i>Social and demographic:</i> age, labor groups; income of the population; tastes and preferences; structure of consumption in cities and villages	<i>Personnel factors:</i> the availability and cost of paying for the services of qualified specialists to bring to market renewed product groups; payment for the services of marketers
<i>Political:</i> state of markets; stability of market development; changes in legislation	<i>Technological:</i> availability of technological capacities for production renewal; storage conditions for a new product
<i>Economic:</i> prices for resources and energy; licensing of certain activities and production; equipment prices; tax burden on the enterprise; relations with contractors; cost of credit and investment resources; logistical component	<i>Financial and economic:</i> the availability of own or borrowed financial resources to update the range; economic feasibility of a new product (expected financial result); estimation of costs for promotion of goods on the market; aggregate economic assessment of the feasibility of the new range
<i>Market:</i> market share of the manufacturer; concentration of competitors; availability of free niches in the market	<i>Infrastructure:</i> availability of a prepared update system range (from the acquisition of resources to implementation)
<i>Technological:</i> the availability of technology and equipment on market for the production of certain groups of goods	<i>Sales:</i> the presence of well-established sales channels products, wholesale buyers

The factors listed in table 1 require detailed analysis in the process of forming or restoring the product range of the enterprise.

The formation of the range also depends on the range of products of the company. Goods are grouped together on the basis of the unity of their production origin or consumer purpose. The list of product groups selected for trade is called the group range, and the types of products within each product group – intragroup.

According to the breadth of coverage distinguish goods:

- simple assortment, which are classified by a small number of features;
- complex range, which are represented by a significant number of groups, species, varieties and names that meet different needs in goods;
- branded range, which is a set of goods of one group, but different brands;
- expanded range, which is a set of goods, which includes subgroups, species, varieties that belong to one group, but differ in individual characteristics;

- accompanying range, which is a set of goods that perform ancillary functions and do not belong to this group of goods;
- mixed range, which is a set of goods of different groups.

The breadth of the range – the total number of different product categories included in the range, although the product category is a set of goods that the buyer perceives as similar to each other, or goods combined together [105]. The state of the range of goods, the degree of its compliance with the needs and demands of the population is judged by the indicator of latitude. The breadth of the range can also serve as an indirect indicator of market saturation of goods: the greater the breadth, the greater the market saturation.

Similar indicators can be used to analyze the product range, which is part of the product range. Decisions on the formation of the product range and product range are made taking into account the situation on the market, the general economic and marketing strategy of the enterprise, its resource capabilities.

Unequivocal recommendations on what should be the product range and product range, it is difficult to give, but there are some patterns. A wide and deep range of products, which is focused on the needs of different consumer groups, increases the company's adaptability to changes in the market and reduces the risk of non-sales, but in this situation significantly complicates the organization of production and sales. At the same time, it is simpler and less risky for the manufacturer to increase the depth of the range than its expansion associated with the development of new product lines.

Deepening the range provides a greater degree of consideration of the specifics of the requests of different groups of consumers. The strategy of differentiation is based on this as one of the two main competitive strategies.

The revision of product nomenclature, product policy and range should be carried out constantly and meet new market opportunities.

The main strategic goals of range management include:

- maximum satisfaction of the needs of all target groups of consumers while increasing the efficiency of interaction between suppliers and retailers;
- ensuring a high level of customer service;

- formation of a positive image of the enterprise;
- gaining and maintaining a certain share of the enterprise in the consumer market;
- moving to other market segments;
- strengthening the financial condition of the enterprise.

Tactical goals of assortment management are:

- formation of current and future assortment policy in accordance with consumer demand;
- formation of a specific range that meets the parameters of the selected niche and takes into account consumer characteristics;
- establishing directions for expanding the range in accordance with changing needs;
- improving the activities of enterprises in relations with suppliers;
- ensuring sufficient breadth, depth and stability of the range;
- ensuring a balance between cash advanced to goods and proceeds from their sale;
- regulation of the size and structure of inventories, which ensures maximum efficiency of advanced funds;
- ensuring the growth of sales and profits;
- maintaining operating costs at a minimum;
- accelerating the turnover of inventories;
- optimization of the structure of sources of coverage of goods, taking into account the financial stability of the enterprise;
- risk management [115].

Operational management of the range can be carried out for the following purposes:

- ensuring uninterrupted sale of goods to retail buyers;
- formation of the basic range taking into account the complexity of consumption;

- distribution of separate groups and subgroups of goods in terms of consumer complexes;
- replenishment and regulation of the range;
- organization of economic relations, control of their implementation;
- ensuring the purchase of goods in an amount that meets market demands and ensures the optimal level of inventories;
- rational use of retail space;
- organization of in-store advertising and information on the range;
- rational use of merchandising;
- stimulating sales, etc. [115].

The development of an assortment list of goods by each specific trade enterprise and control over its observance leads to better customer service of the target market and the creation of a sustainable range. In case of detection of absence in sale of the goods which are provided by assortment, the firm should take measures for their delivery.

The presence of the assortment list allows not only to rationally regulate the range of goods, but also to systematically control its completeness and stability. The lack of assortment policy leads to an unstable assortment structure due to the influence of random or variable factors, loss of control over the competitiveness and commercial efficiency of goods. Current decisions made by the head in such cases are often based solely on intuition, and not on sober calculation, taking into account long-term interests [116, p. 21].

A well-thought-out assortment policy not only allows to optimize the process of updating the product range, but also serves as a kind of indicator of the general direction of the company's management, allows you to control situations that arise in the course of trade. With increasing competition among market participants, the assortment policy of the trading company plays the role of catalyst for network development and increase the number of satisfied consumers.

It should be borne in mind that updating the product range does not always involve its expansion and production of additional products – it is also possible to

reduce the range and abandon the production of certain products. And here is the concept of optimal range, which is not always the most complete. The optimal range is a set of goods that meet the real needs with maximum utility for consumers and minimum costs for the manufacturer [117].

Creating new products begins with a clear strategy focused on the customer and the market. Any strategy determines the direction of the product and what needs to be achieved, so the creation of this product is primarily in line with the economic and technical capabilities of the enterprise and allows it to focus on those products that are most in demand today.

An important condition for maintaining the optimal marketing product policy is compliance with the procedure of analysis and final decision-making. This is usually associated with the following actions:

- clear definition and delineation of the purpose of production and sales in the future;
- the presence of a strategy of production and marketing activities of the enterprise;
- knowledge of market conditions and its requirements;
- analysis of own research, scientific and technical, production, sales opportunities and resources now and in the future.

The main components of product policy are:

- innovation (creation of new products or renewal of existing ones);
- ensuring the quality and competitiveness of goods;
- creation and optimization of product range;
- issues of brands (development and implementation of strategies);
- creation of effective packaging (for relevant products);
- analysis of product life cycle and management;
- positioning of goods on the market [127].

Modern assortment policy of enterprises requires the inclusion in the assortment model of goods that are at different stages of the life cycle in a certain ratio. This approach reduces the commercial risk associated with non-receipt or loss of profit from



the sale of goods in the early stages of the life cycle, as well as the presence in the range of mature and aging goods in the long run and thus guarantee the company relatively stable sales and stable market position.

Nationwide, the assortment policy strategy envisages expanding the range of domestic products, focusing on the own capabilities of producers, optimizing the range of each product group and subgroup by removing obsolete models and styles, updating the range on a qualitatively new basis.

Defining a strategy is an important part of product planning. It brings together managers and other key stakeholders according to the desired end state and how the product will meet the planned business goals.

Product strategy is the basis for the entire product life cycle. As manufacturing executives develop and adjust their product production strategy, do they pay attention to their target customers and what they need right now? This informs about the strategic positioning that is necessary to succeed in business. Once the chosen strategy is complete, you can use it to form the definition of the main product. Product definition includes information about key product requirements – such as releases, features, custom flow and design, and specifications.

Thus, strategy development is the most important component of the life of a modern enterprise. The main goal of the strategy is to achieve long-term competitive advantages that will ensure the survival and sustainable operation of the enterprise in the future. There are many approaches to understanding strategy. Taking into account the views of different authors, the strategy is a coherent set of interrelated strategic decisions that determine the priorities of the enterprise in the implementation of its mission, goals and objectives.

Defining a strategy includes three main components: vision, goals and initiatives.

The vision includes detailed information on market opportunities, target customers, positioning, competitive analysis and market entry plans. The vision describes who the customers are, what they need, and how to plan a unique offer.

Goals are measurable, time-bound goals that have clearly defined success rates associated with them. They help business leaders determine what needs to be achieved in the future.

The choice of goals is at the heart of the strategy, but an integrated approach also specifically describes how the company plans to achieve these goals. As a result, the strategy in practice explains how the company differentiates itself from competitors, how it earns revenue and where it makes a profit.

Initiatives are high-level efforts or large projects that need to be implemented to achieve the company's goals.

In this case, each company can use different types and subtypes of product strategy Fig. 2.

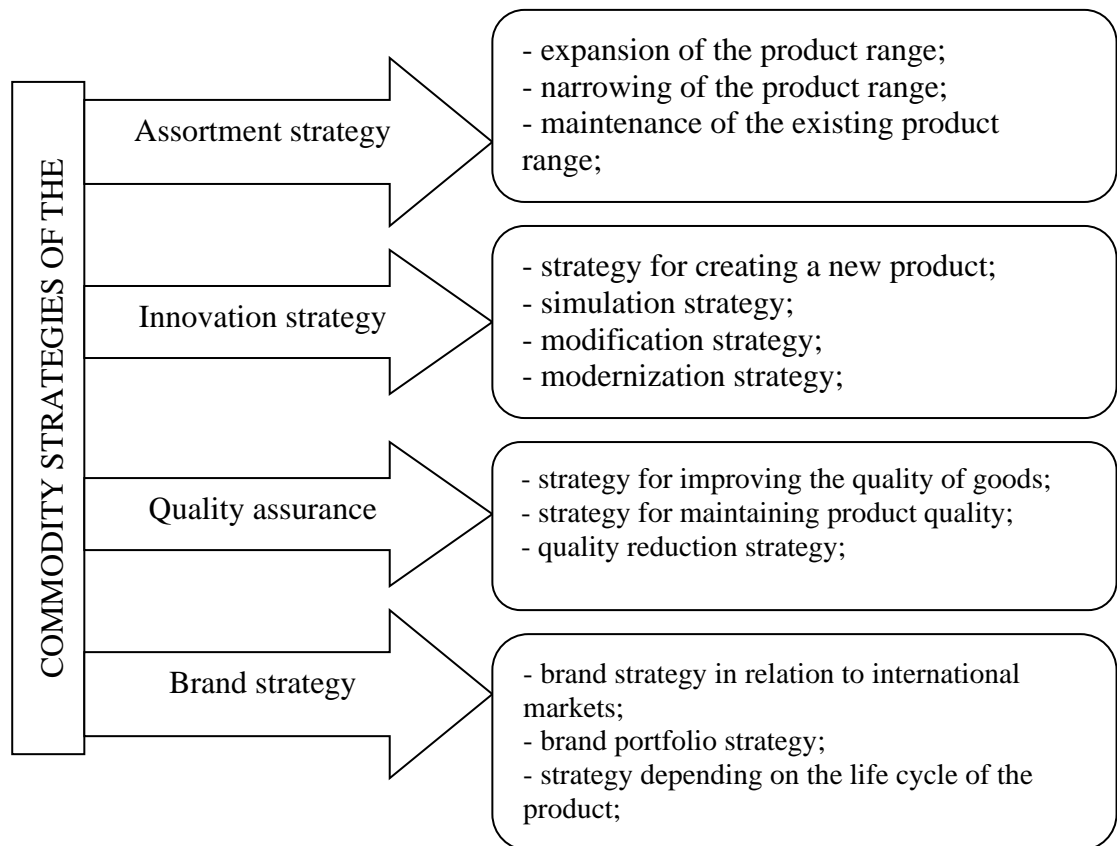


Figure 2. Types and varieties of product strategy of enterprises

For trade enterprises, the product strategy should take into account the special direction of their activities, taking into account the conduct of business activities in Ukrainian and foreign markets. Assortment strategy includes: expanding the product range; narrowing the product range and maintaining the existing product range. In

terms of innovation strategy, these are: the strategy of creating a new product; simulation strategy; strategy of modification and modernization. Quality assurance, the main element of any enterprise in the direction of: strategies to improve the quality of goods; product quality maintenance strategies; quality reduction strategies.

The brand strategy is an internal component of the product range of the enterprise, which takes into account: the brand strategy in relation to international markets; brand portfolio strategy; strategists. depending on the life cycle of the product.

For the successful operation of domestic enterprises in the market it is necessary to create favorable conditions for the buyer to purchase goods (a combination of high quality, fairly low prices, discounts and service) and respond to changes in supply and demand as quickly as possible, which is reflected in the range and pricing policy of the enterprise [118, p. 31].

The intensification of competition and the constant change in consumer behavior under the influence of external factors of consumer market development are forcing companies to find new ways to manage the range of goods that would allow them to position their product offer as the most effective. After all, working with the range in retail requires the creation of such a set of individual products, which has special advantages in terms of buyers [119].

Experts consider differentiation and modification of products to be an effective direction of the assortment strategy. But this area of activity requires high costs, as it will be necessary to modernize and expand the production capacity of the enterprise, to diversify and restructure the distribution network, to expand the marketing complex.

The range of products depends on demand, resources and goals that the company intends to achieve. Increasing the number of product lines contributes to the expansion of the product range, which indicates that the level of production is changing. Changes in the range are made either by increasing or saturating. The range consists of two directions that can occur simultaneously. This could be: «Decrease» growth – when a company, while focused on buyers of expensive or luxury goods, sells products that are also designed for less demanding consumers who have less capital, looking for less sophisticated devices, machines with less productivity and functionality. Growing up

– when a company that is still focused on customers with less purchasing power, also introduces exclusive, more technological products. On the other hand, the saturation of the range means an increase in the number of product lines within families or assortment items.

Assortment policy is a set of goods that constitute the offer of a commercial enterprise, subject to the policy on product range. Its formation is one of the most important and complex areas of decision-making in the enterprise. Proper assortment formation and monitoring of its changes can be a source of strategic advantage in the retail market.

Currently, it is impossible to find a single approach to the formation of product range. Each company forms its own range, based on the specifics of its activities (internal factors) and the peculiarities of the external environment.

As a multifaceted concept, the range can be analyzed from different points of view, namely as a means of satisfying consumer requirements, the subject of labor and commodity supply of the enterprise, commodity resources of trade enterprises, the share of current assets and property, the object of advancing financial resources investments, object of direction of innovative activity, means of improvement of trade service of buyers, etc.

The main factors influencing the assortment policy of the retail company include:

- the structure of demand of the target group of buyers;
- structure of clients and their purchasing power;
- location of outlets;
- competition;
- price structure;
- type of store.

The formation of the product range of the enterprise concerns the choice of: industry, range structure, choice of brands (including own brands) and the definition of strategy in this area. Due to the volume of the proposal, it is possible to clearly distinguish two strategic lines, which are expressed in specialization or

universalization. The specialized offer is characterized by a deep and, as a rule, narrow assortment, a unique set of goods, a special atmosphere for shopping and the level of service of a narrow, often specific group of customers. This is a risky strategy, but it allows the company to make a significant difference in the market.

Universalization is the second strategy that a modern enterprise can successfully apply. The essence of the universalization strategy is to offer a wide range of buyers a wide range of products that meet basic needs with products with relatively low selectivity. Universalization of the range of outlets is often based on commercial relations of products. However, often in stores with a universal range, in addition to the main range (matching the level of location, method of service, etc.), there is an additional range that gives customers a wider choice. A feature that distinguishes industry products is the intensity of demand, depending on the frequency of demand met by the product, its price, quality and more.

The main task in the formation of assortment policy is to increase the economic efficiency of the enterprise as a whole.

The tasks of the strategy of forming the product range of the enterprise can be:

- satisfaction of consumer demands;
- optimization of the technological base and experience of the enterprise;
- gaining new customers;
- development of new market segments;
- expansion of industries and services of the enterprise.

Assortment strategy, as a rule, can be based on the four main areas presented in Fig. 3. Moreover, often successful companies use in practice a mix of several areas, developing their own ways of economic growth.

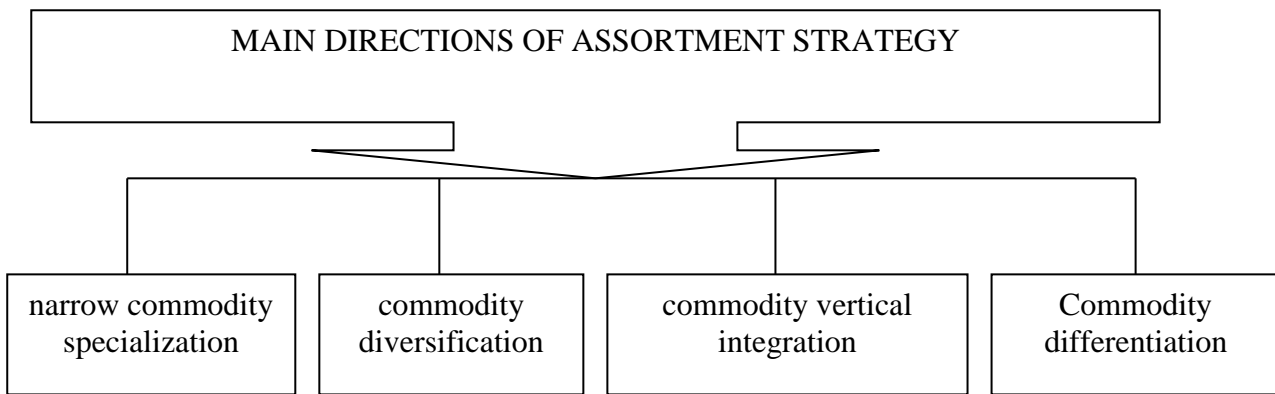


Figure 3. Directions of the assortment strategy of the enterprise

Narrow product specialization is determined by the work of the enterprise in a narrow market segment and, accordingly, the restriction of sales. Narrow product specialization does not always indicate a lack of resources or the specificity of production technologies or the goods themselves, which are not intended for a wide audience.

The reason for choosing the management of the enterprise narrow product specialization for the main direction may be the deep segmentation of the market for such goods. This strategy is often chosen by small businesses or companies experiencing a period of changing commodity markets.

Product differentiation is related to the presentation of the enterprise of its goods or services as different from competitors, which have their own characteristics. The reasons for choosing such a strategy may be such product indicators as improved quality, technological advantage, new developments, excellent raw material base, etc. The peculiarity of product differentiation is that this type of strategy ensures the reconcilability of the product, and product differentiation can be used in the presence of all the product diversity offered by the company.

Commodity diversification (new product – new market) is a strategy that involves a significant expansion of the range of products (services) and the development of new areas of production in conditions of significant variability of the business environment [106, p. 97].

New products and services can either continue the line of previous ones or be completely unrelated to them. Such a product policy protects the company from the risk of a sudden decline in demand for one type of product or crisis situations in a particular industry. The advantage of product diversification is the ability to use the company's own experience (management, marketing, production) in combination with the developments of other companies that successfully promote the newly selected category.

Vertical integration – focused on promoting the company in the market not horizontally, as the previous two methods, but vertically, ie when the company is developing new parts of the production process or new product categories in one area. Vertical integration directs the company to master and control the entire industry, from production, procurement of raw materials, to ways of selling finished goods. Thus, production increases profits, because it is possible to save on commodity transactions, reduce the cost of the finished product, while selling it at fixed market prices.

In our opinion, the strategy of product range formation is a complex set of measures aimed at determining the relationship between «old» and «new» goods, single or serial goods, ie the process of selecting different groups of goods, differentiated by all characteristics. The formation of the product range is preceded by the development of the product product range concept, which will determine the possibilities of optimal sales of the range of a particular type of product.

A special place in the assortment policy is occupied by the problem of finding a rational ratio of goods that are at different stages of the life cycle and at the same time present on the market. The purpose of such a search is to create a fairly stable general conditions for the sale of goods and reimburse the cost of innovation, implementation of new services, as well as support for declining goods and expect a possible increase in consumer demand in the foreseeable future. Thus, we can conclude that the product range has its own principles, approaches, as well as the concept of forming the product range, without which it is impossible to achieve the desired results.

Financial security is the main condition of commercial activity, as the company is constantly in need of funds to perform its functions. Effective range management

requires financial sources of cash, including equity and debt. On the other hand, the range dictates the size and structure of financial resources for the purchase and maintenance of the necessary product groups.

Logistics is aimed at creating optimal material conditions for commercial activities, including range management. They assume the presence of premises, trade and technological equipment, inventory and other items necessary for the introduction of trade and technological process with product groups that make up the product range. The need for material resources depends on the range of goods [130, p. 146].

The basis of successful implementation of range management is its information support. It involves studying the market conditions of buyers and suppliers, the company's own capabilities, determining the effectiveness of range management.

This allows you to make the right decisions about purchasing the necessary goods. The main tasks of information support are to obtain reliable information from customers about demand and transfer them in full to suppliers. The function of purchasing the necessary goods is related to the search and selection of suppliers who provide the company with goods to be sold in the store, to establish business relations with them. Based on customer demand, the need for products is determined and on this basis, product groups are formed.

In order for the company to be competitive and operate successfully in the market, you need qualified staff with knowledge and experience in product management. On the other hand, assortment specialization determines the parameters and requirements for employees. The function of sales (sales) of goods involves the implementation of the range [130, p. 27].

Currently, buyers are reacting sharply to all elements of the trading process. The vast majority of them from two identical stores will choose the one that will provide more additional services. Therefore, when managing the range of goods there is a need to manage and form a range of additional services. It should be borne in mind that the provision of services is associated with certain costs, but they (services) contribute to sales growth and increase the competitiveness of the enterprise.



Without building a sales policy on the principles of marketing, the company is not able in today's business environment to develop effectively and be competitive in the market. Every manufacturing company should have a well-organized marketing department that deals with ways to promote their products in a market of free competition [117].

The formation of the range can be carried out by different methods, depending on the scale of sales, the breadth of the range, the specifics of the finished product, the goals and objectives of the manufacturer. The whole set of methods can be divided into three main groups. The classification of methods of assortment formation is presented in table 2 [112].

T. Paramonova and I. Krasnyuk give only a descriptive description of the methods: ABC analysis, the formation of the range «taking into account its age structure» (actually – based on the stage of the life cycle of goods), the formation of the range «taking into account the behavior of goods on the market» (Actually – depending on the contribution to sales), analysis of the profitability of commodity units, matrix methods (BCG matrices, «depth – width», etc.) [120].

P. Zavyalov in general only notes that «the range can be formed by different methods – depending on the scale of sales, product specifics, goals and objectives of manufacturers» [121].

The original method of forming the assortment policy is described by V. Pylypchuk, O. Osnach and L. Kovalenko, which is to determine the correlation coefficient of the rank of production and the rank of its profitability [122].

In the works of P. Kryvula [123], O. Odintsova [124] various methods of planning (formation) of the range are considered from critical positions, indicating their advantages and disadvantages of practical possibilities of use in general and objectivity obtained on their basis results. Thus, in the work of P. Kryvuli all models (methods) of assortment planning are grouped into two groups: descriptive (i.e. descriptive, such that allow to obtain the original data) and prescriptive (i.e., mandatory, such that determine «how to do») [123].

Table 2. Classification of methods of forming the assortment policy of the enterprise

Group name		
Identification of consumer preferences	Methods of economic analysis	Methods of portfolio analysis
Methods included in the group		
1) observation depending on the stage of manifestation of consumer preferences	1) ABC-XYZ analysis	1) Boston Consulting Group (BCG), adapted BCG
2) observation depending on the form of manifestation of consumer preferences	2) Dibby-Simkin product portfolio valuation method	2) General Elektrik (GE) or McKinsey
3) methods of differentiation of individual elements and properties of products	3) The Marcon Matrix	3) Product development matrix
- Rosenberg mode;	4) the method of optimizing the structure of the range in the presence of a number of restrictions	4) Matrix of competition according to M. Porter
- multidimensional methods		5) Commodity markets according to I. Ansoff
- methods of comparing the required and actual profile		6) Growth matrix through external acquisition
		7) Comprehensive assessment of Varlamov's range

Market methods of product policy formation (or methods of determining consumer preferences) are based on external information base obtained as a result of market research of goods, opinions and needs of consumers, the level of competition in the market and so on.

The main disadvantage of market methods of forming the product policy of the enterprise is their predominant focus on market needs and insufficient attention to issues of internal economic efficiency in terms of capacity utilization, cost recovery and more.

Methods of product policy formation based on the results of economic analysis, as optimization criteria are most often used such as income from sales of goods, marginal revenue, company profits, production costs and use internal information base.

In our opinion, it is expedient to supplement the group of methods of product policy formation based on economic analysis with the method of product range

formation based on rank analysis, described by N. Kruglova [125]. According to the author, the rationality of the structure of the range of the enterprise is quantitatively characterized by the correlation coefficient of the ranks of output and profitability of individual assortment items. In addition, N. Kruglova not only offers a method of estimating the structure of the range, but also describes the algorithm for forming an effective assortment policy using the matrix «Share in output – profitability» [125].

The main advantage of the proposed method of forming the product range of the enterprise is its unconditional practical orientation. In addition, the proposed methodology is based on the use of analytical and expert procedures, which improves the quality of analytical information processing in the process of making management decisions regarding changes in the product portfolio of the enterprise.

The main disadvantage of this method is its narrow focus on managing the structure of the assortment group. In the conditions of multi-item production, when the products of the analyzed enterprise differ significantly in cost and cost structure, the use of profitability as a parameter for optimizing the product portfolio is not sufficiently justified in terms of ensuring economic feasibility.

A common disadvantage of assortment-based methods of economic analysis is the predominant absence or insufficient degree of consideration of market conditions, which using only these methods can lead to loss of market competitiveness of the company's product portfolio.

Effective management of the company's assortment policy involves the use of appropriate methods of product set formation, the use of which will allow to make optimal management decisions on the qualitative and quantitative structure of the range, refresh rate and other aspects of ensuring its high competitiveness. Among them, the most used methods are:

1. The method of forming the range based on the study of the features of the product line.
2. The method of forming the range taking into account the economic goals of the enterprise (ie on the basis of criteria for profit maximization, increase sales).

3. Methods of assortment analysis using matrices: «Marcon», according to the adapted BCG matrix.

4. Dibba-Simkin product portfolio valuation method.

5. The method of optimizing the structure of the range in the presence of a number of restrictions.

6. Estimation by the method of D. Borovinsky.

7. Direct costing method.

8. The approach to solving the assortment problem is based on the "direct costing" system.

9. Comprehensive assessment of the range of A. Varlamov.

10. Analysis of interdependent demand based on correlation.

11. Method of expert assessments [129, p. 90].

Analysis of consumer demand in the formation of the product range, we find in the works of other scientists, who determined the optimal structure of the product range in terms of efficiency in the operation of each product with limited production capacity. The authors propose a method of calculating the range of products, taking into account the level of satisfaction of consumer demand, the technical level of the proposed products. Thus, reflected such factors that affect the formation of products such as meeting consumer demand, optimal product parameters, as well as limiting factors, the role of which is the production capacity and complexity of manufacturing. It should be noted that this approach to the formation of the product range has lost some relevance due to a significant reduction in industrial production, but it can be applied to specific enterprises where there are limited production capacity.

Using the methods of assortment formation, the company can determine the prospects for the development of the range for the near future, find ways to increase its profitability, develop various strategies to maintain or restore the balance of its product portfolio.

With the difficult situation in the world, humanity is trying to get used to the conditions dictated by the COVID-19 pandemic. Quarantine rules force consumers to

rethink long-established shopping habits, and some to change the way they get their product.

The consequence of panic consumer behavior was a temporary unjustified increase in demand for basic necessities and rising prices for them. As a result, large food retailers (the principle of trade organization) not only revised their product policy, but also changed their approaches to the formation of retail prices. This was also influenced by the introduction of price regulation for certain categories of socially significant goods, stopped the rise in prices and panic. The Cabinet of Ministers of Ukraine has forced representatives of large retailers to stop unjustified price increases. Thus, during the pandemic, the government obliged companies to declare any increase in prices for such goods, if they are 5% or more [128].

Thus, assortment policy is a field of activity of the head and specialists of the enterprise, which is a set of principles, strategies and techniques that lead to the formation of the optimal range of products, in terms of improving the efficiency of the enterprise and customer satisfaction. The lack of assortment policy leads to an unstable assortment structure due to the influence of random or current factors, loss of control over the competitiveness and commercial efficiency of goods.

Assortment policy occupies an important place in the product policy of the enterprise and affects the competitiveness of the enterprise in today's market. Assortment formation is a complex and continuous process.

Research of theoretical issues covered in the scientific works of domestic and foreign scientists, allowed us to identify the principles that must be followed during the formation of the product range, which is the basis for building an effective product strategy of the enterprise.

First, the process of forming the product range should be based on the form of its product specialization and the size of the product area and, as a result, meet the needs of all segments of consumers served by trade, while ensuring high profitability of their activities;

Secondly, the rational construction of the product range at the enterprise involves a comprehensive satisfaction of consumer demand within the selected segment of the

consumer market. The implementation of the complex principle within certain consumer complexes allows to create the greatest benefits for consumers.

Third, an important principle of forming the range of goods at the enterprise - is to ensure sufficient width and depth, ie the number of product groups (width) and varieties of goods by individual consumer characteristics (depth).

Fourth, no less important principle of forming the product range is to ensure its sustainability. In the conditions of sale of goods of daily demand this principle is of paramount importance, because a stable range of goods reduces the time spent by consumers searching for goods, allows to standardize all important trade and technological processes and operations, organize their implementation with minimal labor, material and financial resources. .

Fifth, the correct formation of the product range in enterprises will ensure its profitability, which in the face of active market transformations is necessary for the functioning of any existing enterprise.

The practice of enterprise operation proves that there is no product strategy that is the same for everyone. Each company is unique, so the process of forming a strategy for each company is individual. It depends on the market position, development dynamics, potential, behavior of competitors, characteristics of the goods sold, the state of the economy, external and internal environment and so on.

The world is not standing still and the constant change of markets and technologies, new competitors are emerging. Therefore, it is important to regularly assess whether the strategy chosen by the company works. This requires:

- check the performance of the product using the relevant key performance indicators. Analyze the data collected to understand what will help the product work well in your chosen market.

- look for new market trends. Are there any new technologies, normative or social developments or do they provide an opportunity to update, add, remove or improve features or create a completely new product. Communicating with users, attending exhibitions, fairs and conferences, and participating in online communities can help identify new trends.

– monitor competitors and new market participants, review their products, which will show whether your product is sufficiently differentiated. Respond to changes in the market environment and legislation, and if so, what actions are appropriate.

– monitor developments within the enterprise, which will take into account changes in business strategy.

The process of managing the range of the enterprise, as can be seen from the above, is quite time consuming and complex. Many elements of commercial activity are used in it. Assortment management in commercial organizations should be considered not only as a process that ensures the viability of the enterprise, but also as a basis for improving its competitiveness.

Thus, strategies reflect the strengths, vulnerabilities, resources and capabilities of the company, as well as reflect the company's competitors and its target market.

With increasing competition between enterprises and globalization processes in trade, the assortment policy of a commercial enterprise can be a significant source of success in the market.

Modern enterprise needs to have and constantly improve the product strategy, which will allow it to ensure a stable structure of the product range, constant sales and stable profits. The formation of the product strategy of the enterprise should be based on an aggregate assessment of both internal and external capabilities of the enterprise, determined by its market potential. Such substantiation of commodity strategy of the enterprise will allow to form the reasoned offers of the further development of the domestic enterprise for the future.

## **6 Formation of cost management strategy in agricultural enterprise**

The formation and development of market infrastructure in Ukraine significantly change the economic, informational and legal environment of enterprises, the content of their economic activities.

When starting the production process or deciding on its expansion, any company must be confident in its profitability. Comparison of costs and results allows you to assess the efficiency of the enterprise, which avoids irreparable errors to determine the economic policy of the enterprise, making important management decisions, choosing business activities, establishing the optimal volume and structure of production, works and services, as well as determining prices for them.

Any enterprise operates primarily to make a profit, which is the main financial result of the enterprise and a source of funds for its further development.

In the direction of revealing the problems of cost management of agricultural enterprises in Ukraine, some experience has been accumulated, which is reflected in the scientific works of famous domestic and foreign scientists such as: I. Davydovych, G. Kaletnik, K. Larionova, S. Nikolaev, O. Orlov, V. Panasyuk, O. Shpykulyak, Y. Tsal-Tsalko and others. At the same time, the issues of strategic cost management in agricultural production are insufficiently studied.

The development of market relations, the transformation of the domestic economy and its integration into the European space necessitate the improvement of management functions. The implementation of these processes directly depends on a correct understanding of the economic essence of the main elements of enterprises, an important component of which are production costs. Further study of the nature of costs is essential both to determine their role in the management system and to achieve effective management of enterprises.

The resources involved in the activity of the enterprise, which are fixed in cash, form its costs

Despite the significant amount of research on the problems of cost management, further study requires scientific principles of the process of forming a cost management



strategy. At domestic enterprises there are such problems in terms of cost management as: the creation of a new system of accounting, control and analysis, aimed at meeting the needs of management; reorientation of domestic practice taking into account foreign experience on the decision of the tasks put before management in market conditions; creation of new systems for obtaining information about costs and the application of new methods of control and analysis [139].

The market orientation of Ukraine's economy requires intensive work to improve cost and cost management. Accounting and distribution of costs by type of product strengthens the control functions of cost management in the production process. Thus, the company's activities are refocused on the final financial result. It is important to emphasize that cost accounting data should be used not only to determine them, but also for further analysis of the results of the enterprise. Also, these data can serve as a basis for the development of measures to control the implementation of planned tasks by structural units of the enterprise. Given the role of production costs in the development and efficiency of agricultural enterprises there is a problem of forming an effective cost management strategy, which is the process of developing and making management decisions in all areas of their formation and distribution in the enterprise. The formation of cost management strategy should be considered as a complex topic of management of factors that directly or indirectly affect the size of the company's profit. Strategic management of economic activity of enterprises should be carried out on the basis of management of the main types of its activities, covering the main functions and objects of management. The main functions of management include: planning and forecasting, organization and regulation, motivation, control, analysis. The objects of management are: information resources, material and technical resources, personnel, financial resources, production technology, organizational structure of the enterprise. Cost management can be defined as an interconnected set of works that form and influence the process of occurrence and behavior of costs in the course of economic activity and aimed at achieving their optimal level in all subsystems of the enterprise [140].

The following requirements are set for the cost management information system:

compliance of information with the needs of management; providing a minimum but sufficient amount of information for management decisions; ensuring prompt response to deviations; reliability of information; regularity of information to track dynamics; variety of information for consideration of alternative solutions; the effectiveness of information, which is to compare the results with the costs; completeness of information [139].

Improving the cost management system should be aimed at constant search and identification of reserves to save resources, rationing their costs, planning, accounting and analysis of costs by type, stimulating resource conservation and reducing costs to improve the efficiency of financial and economic activities of the enterprise. Given the recent trends in agricultural production in Ukraine, in particular the increasing role of the commodity system, the main subjects of such relations will be agricultural enterprises, which makes them the object of deep and comprehensive study by both science and practice. Therefore, proper regulation of economic relations will require appropriate methodological support - tools based on the use of certain methods and techniques. It will be based on basic economic categories, the primary of which will be costs and costs. The primary nature of these categories makes them universal, which fully meets the requirements of the process of regulating economic relations. Therefore, many domestic and foreign scientists have considered such regulation from the standpoint of the place and role of costs and costs in it [141].

Costs are especially important in the reproduction process and play an extraordinary role in achieving economic effect. That is why for all businesses, regardless of their operating conditions, the issue of cost formation has always been and will remain a priority. This state of affairs quite naturally constantly supports the interest in the process of cost formation as practitioners who directly affect the impact of this economic category on their profitability, and theorists who study the issue of costs from the standpoint of economics. Summarizing the main definitions of the category of costs, we conclude that costs are spent resources, which can be in the form of cash or have a monetary value, and within the chosen area of research we can add that these are resources spent by the enterprise as a result of economic activity for

achieving the goal set by him. This definition of the term "costs" is a methodological basis for their classification and evaluation. Thus, "costs" - is the cost expression of the absolute value of the applied and consumed resources necessary for the implementation of production and economic activities of the enterprise and achieve its goal [144].

In order to determine the amount of consumption of raw materials, fuel, fuel in quantitative terms, it is necessary to have information about their need for them at each stage of production, not only in terms of net costs, but also taking into account waste and losses. Quantitative indicators of labor costs are the cost of working time. The production process is decomposed into separate operations, grouped depending on the qualifications of the work performed and the number of jobs. Positive aspects of accounting for the cost of material and labor resources in kind – the specificity, accuracy and technical certainty of costs. However, due to the fact that they are incomparable, they cannot be generalized and summarized.

From the standpoint of economic theory, production should be considered as the transformation of costs into results. This approach makes it possible to identify that cost management covers all levels of production management and should be based on the cost-benefit ratio.

Almost all authors interpret costs as a monetary expression of the resources used to manufacture products. It is obvious that these approaches determine the actual costs, ie have a retrospective nature, have no effect on «cost behavior».

Specialists of the International Finance Corporation interpret «costs» as a cost expression of the resources consumed in order to perform work to meet customer needs [143, p. 20].

If we consider the works of foreign authors, the features of solving the problem of disclosing the essence of costs are:

- the presence of the same approach to the consideration of the costs of enterprises engaged in various activities, indicating the sectoral characteristics;
- consideration of costs as an element of the entire management system in inseparable connection with other important indicators of financial and economic activity;

- creating conditions for the practical implementation of scientific work in the enterprise management system.

Management accounting collects cost information for forecasting, planning, and control purposes. The task of management accounting is to compile reports, provide owners, managers and managers with the necessary information that will contribute to the achievement of strategic goals of enterprise development. From this we can conclude that in the system of financial and management accounting the essence of the concept of cost is different, so some authors to avoid confusion suggest using the term "costs" in financial accounting, and in management - "costs" because they have different economic meaning [142 , p. 65]. Thus, the listed positions on the researched problems can be grouped into the following three directions.

Among the quality indicators of the enterprise an important place is occupied by such an indicator as the cost of production. It as a synthetic indicator reflects many aspects of production and financial and economic activities of the enterprise. The amount of profit and the level of profitability indicators depend on the level of production costs. The more economically the organization uses labor, material and financial resources in the manufacture of products, works and services, the higher the efficiency of the production process, the greater the profit [148].

The calculation of the cost of production of the enterprise is necessary for:

- assessment of the implementation of the plan for this indicator and determine its dynamics;
- determining the profitability of production and certain types of products;
- identification of reserves to reduce the cost of production;
- determination of prices for products;
- justification of the decision on the production of new products and withdrawal from the production of obsolete products, etc.

The cost of production is an objective economic category, but the composition of costs included in the cost of production is currently regulated by the state [137].

The influence of the state on the process of forming the cost of production is as follows:

- division of enterprise costs into current production costs and long-term investments;

- differentiation of costs of enterprises included in the cost of production and reimbursed from other sources of funding;

- establishment of norms of depreciation of fixed assets, tariffs for social needs and taxes included in the cost [147].

In addition, it should be borne in mind that in enterprises part of the costs, although included in the cost of production in the actual amount produced, but for tax purposes, the cost is adjusted to the duly approved limits, norms, standards and rates (travel expenses), entertainment expenses, interest expenses on loans and borrowings, etc.) [146].

There are the following areas and features of the classification of costs depending on the processes of economic activity of the enterprise:

- making management decisions - costs are explicit and alternative, relevant and irrelevant, effective and inefficient;

- forecasting - costs of short-term and long-term periods;

- planning - costs are planned and unplanned;

- rationing - costs within the established standards, norms and estimates and deviations from them;

- organizations - costs by places and areas of their occurrence, functions and centers of responsibility;

- accounting - costs in terms of economic elements and costing items, one-element and complex, fixed and variable, basic and overhead, direct and indirect, current and one-time;

- control - costs are controlled and uncontrolled;

- regulation - costs are regulated and unregulated;

- incentives - mandatory and incentive costs;

- analysis - actual costs, planned, standard and regulatory, full and partial, general and structural [153].

Organizing the process of production (works, services), economic entities incur

numerous costs. In order to properly account for, plan and analyze costs, various methods are used to classify costs on various grounds.

Classification of costs of production and sales - is the systematization and grouping of costs by characteristics.

According to the methods of planning, accounting and distribution of costs are classified by economic elements - an estimate of costs, and by place of expenditure - grouping by costing items.

The cost management system has functional and organizational aspects. It includes the following organizational subsystems: search and identification of resource saving factors; rationing of resource costs; cost planning by their types; cost accounting and analysis; stimulating resource savings and reducing costs.

In a market economy, producers are interested in reducing costs, because it is directly related to business, the profitability of their firms. However, reducing production costs should not adversely affect product quality, production efficiency. Therefore, the reduction of production costs is considered in conjunction with other important indicators of economic efficiency. At the same time, the efficiency of cost management increases when production results increase at a higher rate than costs increase [145].

The scheme of production cost management is presented in Fig.1.

Cost management is the process of purposeful formation of costs for their types, places and carriers with constant control of the level of costs and stimulating their reduction. This is an important function of the economic mechanism of any enterprise. The cost management system has functional and organizational aspects. It includes the following organizational subsystems: search and identification of resource saving factors; rationing of resource costs; cost planning by their types; cost accounting and analysis; stimulating resource savings and reducing costs.

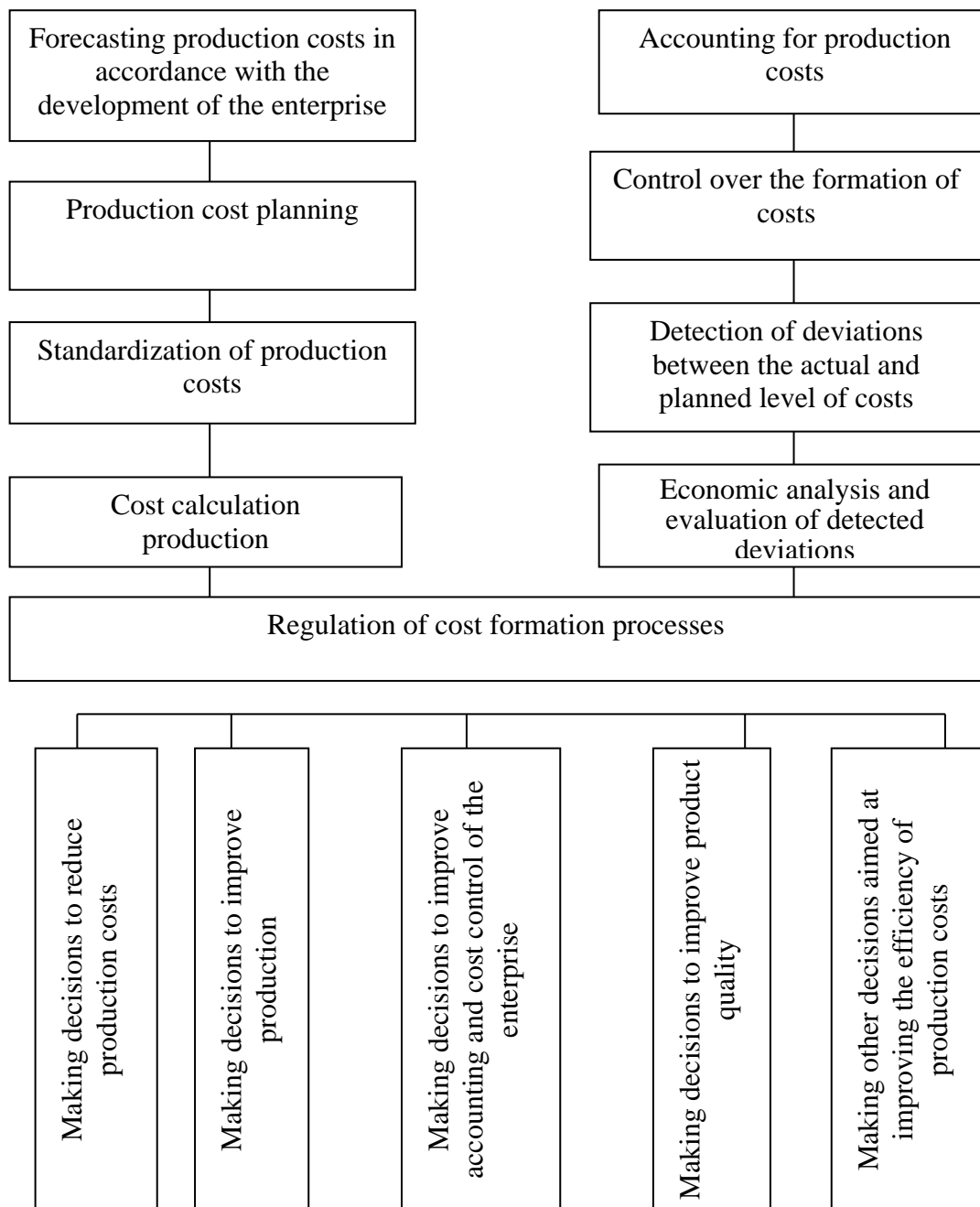


Figure 1. General scheme of production cost management [149]

Such subsystems are managed by the relevant structural units of the enterprise depending on its size (departments, individual performers).

The cost management system, in turn, is aimed at meeting only the internal needs of the enterprise in the management of its production and marketing activities. It is not limited in the choice of methods and is developed in accordance with the peculiarities of the organizational structure, tactical and strategic goals of the enterprise, production technologies, production process requirements, etc. [139].

Identifying and using resource saving factors, reducing costs is the responsibility of every employee of the company, especially professionals and managers at all levels.

Most control systems have certain shortcomings, namely:

- the structure of cost management of the product is not defined, when determining the quality of products almost do not take into account economic parameters;

- management is implemented through a plan formed by basic costs;

- the complex of expenses on economic units, instead of on products is managed [131].

The cost management system should provide managers of the enterprise with such information that will allow:

- make management decisions taking into account their economic consequences;

- control costs in comparison with the norms;

- to form an economic strategy; - assess the formation of cost and profit during the production period;

- estimate the costs in terms of structural units of the enterprise;

- to make decisions concerning expediency of realization of separate manufactures, efficiency of use of resources [132].

According to certain organizational and technical decisions and conditions norms of expenses of all types of resources are developed: raw materials, basic and auxiliary materials, energy, labor resources, etc. The established cost norms are the marginal costs of certain types of resources according to the organizational and technical conditions of production.

They are an important factor in ensuring austerity and, accordingly, the competitiveness of the enterprise. In the process of planning, the maximum (allowable) total costs in the units and in the enterprise as a whole (estimates) and per unit of output are set. The actual cost level is calculated from the current accounting data. Comparison of actual costs with planned (regulatory) allows in the process of analysis to assess the work of units for the use of resources, to determine the causes of deviations



of actual costs from planned and, accordingly, to encourage employees to reduce them [151].

Cost management in the enterprise involves their differentiation by places and centers of responsibility. The place of expenses is the place of their formation (workplace, group of jobs, site). The center of responsibility is understood as the organizational unity of cost centers with the center responsible for their level. In practice, it is believed that the center of responsibility coincides with the place of expenditure, although this is not mandatory. The formation of cost centers and centers of responsibility is carried out on functional and territorial grounds. In the first case, the costs are localized in a certain functional area of activity (marketing, research and preparation of production, logistics, production, maintenance of production, management). Territorial cost centers and centers of responsibility include organizational units of the enterprise (departments, sections, shops), which are separated spatially. The centers of responsibility make estimates (planned costs), calculate the actual costs and determine the unit cost of production (services) for production units. This allows for effective control over resource consumption.

At the same time, it is important to divide the costs for each center of responsibility into direct and indirect, variable and constant. The first division is essential for determining the cost of individual products (calculation). Direct costs are directly attributed to the products of responsibility centers (cost centers), and indirect - are formed by these centers, and then distributed among individual types of products. The division of costs into variable and fixed in relation to the centers of responsibility (cost centers) is important for the preparation of so-called flexible estimates and evaluation of activities. This division of costs allows you to quickly calculate estimates for different options for production, as well as to list the planned costs for the actual volume of production during the analysis and evaluation of units. Taking into account the peculiarities of costs, forming a management system, we can note a number of requirements for the management system, namely: prevention of unnecessary costs; complex nature of management decisions; improvement of information support; systematic approach to cost management; focus on strategic goals of enterprise

development; organic combination of costs with product quality; unity of methods at different levels of cost management; introduction of cost reduction methods; cost management at different stages of the product life cycle [153].

From the above it can be stated that any company should use such a mechanism for the formation of production costs, which will provide complete information about the cost of manufacturing products. Such information is the guarantor of the company's success in a competitive environment. Timely response to deviations of costs from the normative values will prevent the growth of production costs, which are directly proportional to the cost of production and profit of the enterprise.

The key requirement for agricultural enterprises is to provide the population and agribusiness with products of the required (standardized) quality and the choice of the optimal time and place of its implementation. Without fulfilling these conditions, ensuring the efficiency of the agricultural producer, and hence its competitiveness, is impossible. In addition, it is imperative to create a competitive advantage that requires one or more of these conditions to be better than competitors and with lower resource costs than theirs. From the standpoint of the concept of cost management, this can be formulated as the need to minimize costs without loss of quality of goods and without deteriorating the conditions of its supply and payment. In general, cost management is associated with increasing or maintaining the competitiveness and efficiency of the enterprise by reducing costs. The result of both minimizing costs and meeting market demands should be a reduction in total costs by reducing the unit cost of production. As a result, the company will be able to set a lower price compared to competitors for goods of similar quality and / or create a margin of safety. The existence of a margin of safety provides the market entity with a number of benefits, which include:

- 1) the ability to obtain more than competitors, profit (in the case of setting the same prices as competitors);

- 2) the ability to maintain a price advantage by maintaining a constant price in case of unfavorable conditions in resource markets;

- 3) the ability to maintain a price advantage due to lower prices in case of unfavorable conditions in the markets of agricultural products. Schematically, the role

of cost management in ensuring the competitiveness of agricultural enterprises is shown in Fig. 2.

Influence on the listed factors is carried out through regulation of the levers which start mechanisms of increase of productivity, decrease in cost and quantity of the used resources, thereby providing formation of price competitive advantages.

Cost management levers are norms and standards of productivity and resource costs. Activation of the described processes is provided by development and implementation of system of technical-technological and organizational measures of management of expenses. The introduction of technical and technological measures is aimed at increasing productivity and reducing the use of resources through the use of more advanced resources and technologies or, in other words, through the innovative development of the enterprise. Organizational measures are primarily related to reducing the cost of resources and reducing non-production costs, which is achieved through the organization of marketing activities (including to improve logistics processes) and the development of vertical and horizontal integration. At the same time, technical-technological and organizational measures include optimization of the sectoral structure of the agricultural enterprise, which is focused on achieving a minimum of total costs and meeting market needs.

The source of momentum to reduce costs is motivation. The exclusive role of the motivational mechanism is due to the fact that, first, the motivation system serves to encourage staff to increase productivity. Secondly, the motivation system implements the function of stimulating employees to develop and implement cost management measures.

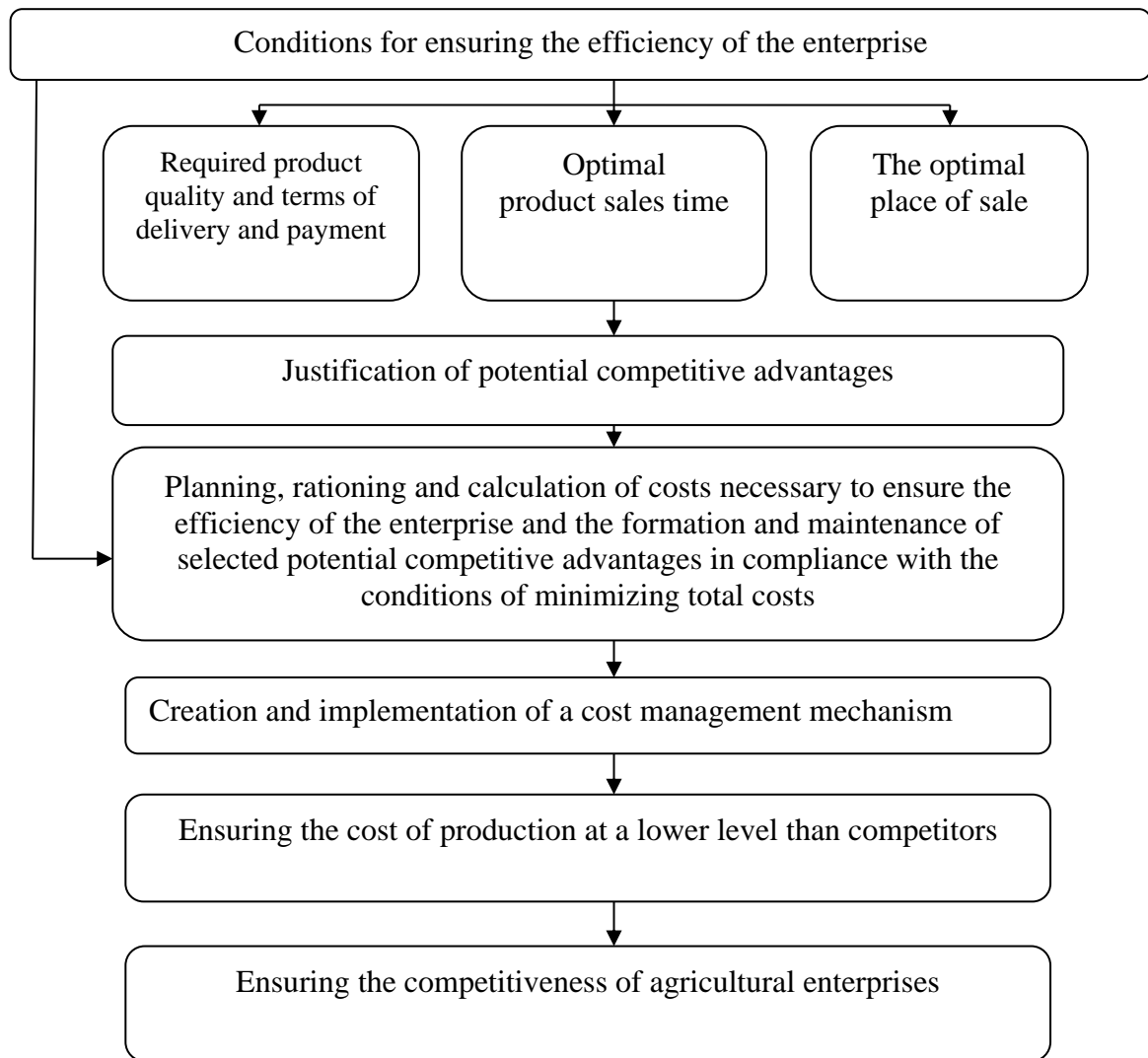


Figure 2. The role of cost management in ensuring the competitiveness of agricultural enterprises

That is, the system of motivation should be considered as a set of incentives within the cost management mechanism, and as one of the organizational measures to reduce production costs by increasing productivity. Summarizing the above, the cost management mechanism is defined as a set of levers and incentives, the systematic interaction of which is provided by the implementation of cost management measures through the organization of the impact on the factors of production costs.

In today's market economy, the strategic goal of the agricultural enterprise aimed at maximizing its market value is the best option for development, as it also takes into account such goals as making a profit and ensuring sustainable development.

However, given that in Ukraine a large number of agricultural enterprises are in

crisis and are unprofitable (especially the livestock industry), the alternative in choosing the goal of strategic development for a specific perspective for individual enterprises can be not only maximizing the market value of the enterprise, but and profit maximization or crisis-free development and economic growth.

To make decisions about achieving a specific goal based on strategic cost management, it is advisable to analyze the activities of the agricultural enterprise and its relationship with suppliers of resources and consumers by building a value chain of the enterprise and the overall cost chain of production.

According to the concept proposed by M. Porter, the value chain of the enterprise is a set of activities that cover the processes of supply of raw materials, production and promotion on the market. In turn, such a chain of an individual enterprise is part of the system of cost chains for production, which includes the value chains of suppliers of raw materials, distribution channels of finished products (distributors) and end users [153].

The value chain for agricultural production is a complex of the following activities:

- cultivation of agricultural products;
- storage of manufactured products;
- sales of products to consumers.

The value chain of an agricultural enterprise consists of the following main links: material and technical support with the necessary resources, soil preparation, sowing, care of crops, harvesting, relocation of finished products to the warehouse, sales.

In addition to the divisions that provide the main activity, the company has divisions of human resources management (hiring, training and motivation of personnel, labor relations), infrastructure (enterprise management, planning, accounting and financial work, legal services, information support, etc.).

Thus, cost management is an important function of the economic mechanism of an agricultural enterprise. It has functional and organizational aspects and includes the following organizational subsystems: search and identification of resource saving factors; rationing of resource costs; cost planning by their types; cost accounting and

analysis; stimulating resource savings and reducing costs. Such subsystems are managed by the relevant structural units of the enterprise depending on its size (departments, offices, individual performers). Today, effective cost management can be achieved by achieving high economic results. It is a complex, multifaceted and dynamic process that includes management actions aimed at achieving a high economic result.

Creating an effective cost management system involves systematic monitoring of actual costs and their behavior under the influence of both internal and external factors, decision-making to improve the cost structure of products, etc. [152].

The CMS provides control and analysis of the current activities of units, allows you to identify the relationship between the level of costs, production and profit, and on this basis to quickly plan future activities. That is, in essence, the cost management system is focused on the future [140].

The cost management system, in turn, is aimed at meeting only the internal needs of the enterprise in the management of its production and marketing activities. SUV is not limited in the choice of methods and is developed in accordance with the peculiarities of the organizational structure, tactical and strategic goals of the enterprise, production technologies, requirements of production processes, etc. [144].

An improved cost management system provides managers with information that provides the following benefits (Fig. 3).

Given the peculiarities of costs, forming a management system, we can specify a number of requirements for the management system, namely:

- prevention of unnecessary costs;
- complex nature of management decisions;
- improvement of information support; systematic approach to cost management;
- focus on strategic goals of enterprise development; organic combination of costs with product quality;
- unity of methods at different levels of cost management;
- introduction of cost reduction methods;
- cost management at different stages of the product life cycle.

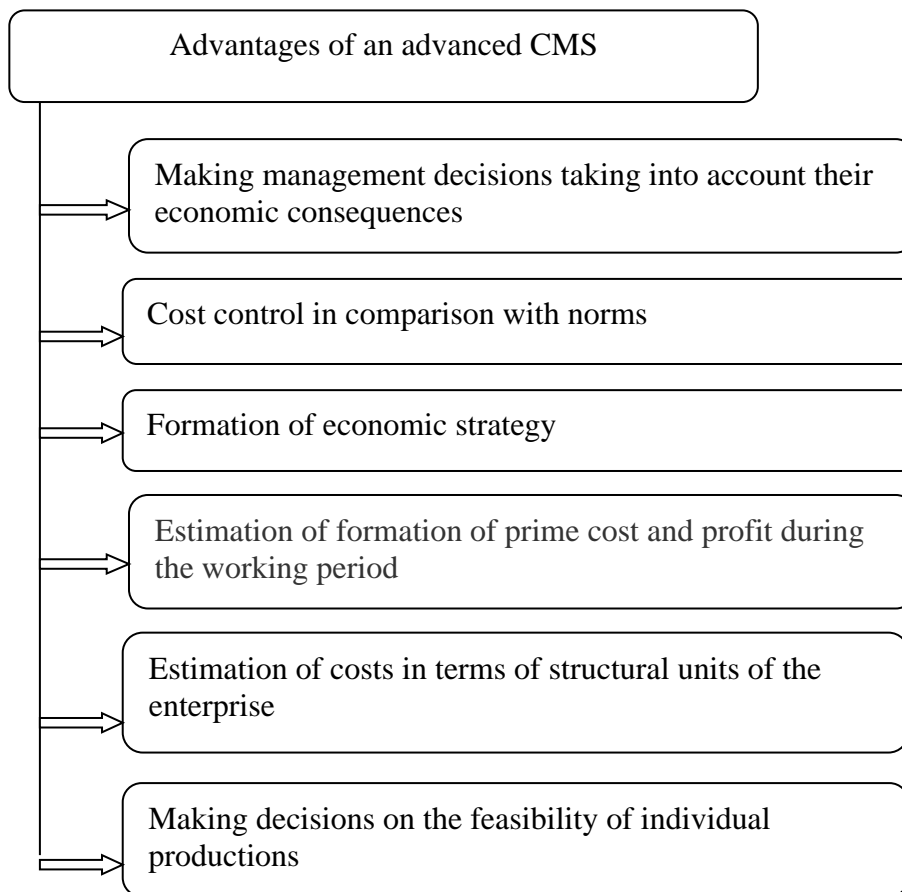


Figure 3. Advantages of using advanced CMS

The cost management system is aimed at solving the following tasks:

- control over the course of economic activity of the enterprise;
- identification of trends in changes in the level, volume and structure of costs per volume of production and unit of output;
- collection, analysis of cost information;
- rationing, cost planning in terms of elements, production units and types of products;
- search for reserves of resource savings and cost optimization [147].

Analyzing the existing definitions of "cost management system", in our opinion, the most appropriate is the following - a set of interconnected elements, methods and mechanisms that operate within the functional responsibilities and form a certain integrity, which summarizes the processes of supply, use resources, clearly set goals are solved, tactical and strategic plans are implemented [141].

It should be noted that the cost management system of an agricultural enterprise is specific and is characterized by certain features, namely: purposefulness (optimization of the level of production costs, sales and income); complexity (the presence of a significant number of subsystems); flexibility (adaptation to changes in the influence of external and internal factors); controllability (possibility of changes in the functional system depending on the needs of production).

The need to improve the cost management mechanism is due to the following factors:

- 1) increasing competition in the markets of materials and raw materials;
- 2) change and instability of prices for resources of production;
- 3) identification of technical methods for measuring, collecting, analyzing and preparing information for evaluation, planning and management decisions on cost optimization.

Requirements for cost management in the enterprise are determined by various factors, namely: changing conditions of competition; the need of buyers and sellers; introduction of flexible automated production equipment; computerization of the design process, product quality control. One of the requirements for cost management is their recognition as a tool for enterprise management.

In modern conditions, almost every company must independently decide on the management of production costs, determine the requirements for the effectiveness of their implementation and so on. However, in all cases the goal of production cost management should be set and tasks and measures for its implementation should be developed. in fig. 4 shows the sequence of work related to the formation of requirements for cost management, development and implementation of cost management system at the enterprise.

At the first stage is carried out before the design study and determines the main purpose of the enterprise in the field of cost management. At this stage, it is necessary to analyze the real state of implementation of production costs in the main areas and units of production processes, assess the effectiveness of their formation and justify ways to improve the efficiency of their management. The real state of the



implementation of costs should be determined on the basis of information coming from the centers of responsibility for production costs.

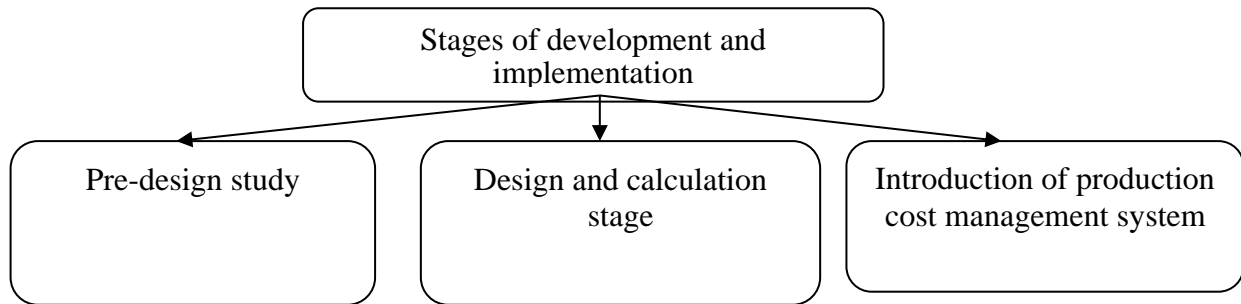


Figure 4. The sequence of development and implementation of an effective cost management system

On the basis of the research of the second stage at the enterprise the complete information on realization of directions of improvement of system of management of expenses of manufacture, increase of efficiency of their management should be formed. The final materials of this stage should be the definition of the main functions of cost management and their tasks in improving the efficiency of the existing cost management system or ensuring the efficiency of the new, designed system. In the latter case, a project of such a system is developed and submitted to the management and owners of the enterprise.

At the final third stage, a new or improved cost management system is implemented. At this stage, a plan for the implementation of the system should be developed, which defines the timing of the main activities and responsible persons. In our opinion, it is advisable to create a working group of managers to monitor the implementation of the cost management system, assess the effectiveness of their operation at the stage of implementation of new or upgraded functional subsystems of the production cost management system.

The development of an effective system of cost management reduces the possibility of negative impact of random phenomena on the activities of the enterprise, allows you to predict the effects of negative measures and provides the company with the following advantages:

- 1) Making management decisions taking into account their economic consequences;
- 2) Cost control in comparison with standards;
- 3) Formation of economic strategy;
- 4) Assessment of the formation of cost and profit during the production period;
- 5) Estimation of costs in terms of structural units of the enterprise;
- 6) Making decisions regarding the feasibility of individual production, efficiency [154].

A component of the cost management system is margin analysis - one of the most effective ways to measure and study costs. It is an element of enterprise cost management that analyzes the impact of cost structure and revenue on the profitability of products or divisions of the enterprise. It allows modeling to find the most favorable ratio between variable and fixed costs, product price and production volume.

The traditional procedure for determining the production cost of various types of agricultural products of enterprises involves the distribution of indirect costs according to the selected base, which leads to inaccuracies in the formation of production costs in general and the loss of dependence between cost and profit.

However, using the elements of marginal analysis as a component of management accounting, agricultural enterprises have the opportunity to most accurately analyze the impact of the structure of production costs and revenue on the profitability of manufactured products. The application of this method of analysis will allow modeling to find the most favorable relationship between variable and fixed costs, product price and production volume. In this regard, the urgent task is to study: the influence of marginal factors on the change in profit; stages of application of elements of marginal calculation of prime cost of production taking into account organizational - technological features of activity of the agricultural enterprises in Ukraine.

The distribution of costs into fixed and variable, the calculation of marginal profit can determine the impact of production and sales on the amount of profit from sales of products, works, services and sales, from which the company receives profit.

This is done through the analysis of the break-even model (system "cost-volume of production-profit").

The break-even model is based on the following initial assumptions:

- the behavior of costs and revenues can be described by a linear function of one variable - the volume of output;
- variable costs and prices remain unchanged throughout the planning period;
- the structure of products does not change during the planned period;
- the behavior of fixed and variable costs can be accurately measured;
- at the end of the analyzed period, the company has no stocks of finished products (or they are insignificant), ie sales correspond to production.

In the conditions of economic transformation, minimization of costs is an important criterion for optimizing the activities of each enterprise. Reducing costs allows the entity to gain a competitive advantage in the market of goods and services, allows free pricing, allows to increase demand for products and make more profit [136].

Because the amount of costs is a reflection of the financial activities of the entity, it is important to ensure effective strategic cost management of the enterprise, in which an important place is occupied by cost planning and forecasting.

In a market economy, the growth of independence of enterprises, their responsibility for the results of activities there is an objective need to determine trends in their financial condition and promising financial opportunities. The financial strategy of the enterprise which is a part of the general strategy of economic development and should be coordinated with its purposes and directions is directed on the decision of these problems. In turn, the financial strategy significantly affects the overall economic strategy of the enterprise.

Implementation of the financial strategy of the enterprise ensures the formation and effective use of financial resources, identification of the most effective areas of investment, compliance of financial actions with the economic situation, identification of the main threat from competitors and ways to gain an advantage over them. The initial stage of planning is to forecast the main activities of the enterprise. At this stage,

the tasks and parameters of the current financial planning are determined. In turn, it is at the stage of current financial planning that the basis for the development of operational financial plans is formed, which provide the necessary information for making new management decisions.

The starting point of the system of current planning of the enterprise is its financial strategy and financial policy. Current financial planning allows the company to identify sources of funding for its development, to form a structure of income and expenses, to ensure sustainable solvency, to determine the structure of its assets and capital at the end of the planning period.

The budget is an operational financial plan, drawn up for the short term in the form of cost estimates or balance of income and expenses, coordinated by all departments and functions, which provides effective control over the receipt and expenditure of funds in the enterprise and is the basis for management decisions.

Since the company independently chooses the form of the budget, it should be formed on the basis of a certain standardization, which determines the budgeting process.

Budgeting is a standardized process based on both self-developed enterprise and generally accepted requirements and procedures. The latter include:

- 1) development of budgets by all departments;
- 2) ensuring a single procedure for preparation, analysis and approval of budgets;
- 3) coordination of activities of divisions of the enterprise in the process of budget development;
- 4) structured budgets;
- 5) validity of budget indicators;
- 6) openness of budgets to changes;
- 7) participation in the budgeting of managers of all departments responsible for budget execution.

Budget planning at the enterprise consists of two stages:

- 1) planning - budget development;
- 2) monitoring (control over the implementation of budgets).

In the budgeting process it is necessary to take into account factors: the stage of the life cycle of the manufactured product; constant and variable needs of buyers; level of competition; workforce; technology development trends; level of business and financial risks; needs and resources of production; stocks in stock; cost of raw materials, marketing and advertising conditions; pricing of goods (services); moral aging of goods and services.

Budgeting is carried out "bottom-up" and "top-down". Budgeting "bottom-up" (from the level of units) is carried out with the involvement of employees of units, during the budget "top-down" the budget is passed by management to managers of structural units for detail and development of recommendations [136].

The most valuable thing that gives the company budgeting - is the coordination of all aspects of activities, the efforts of all departments to achieve the end result and, as a consequence, increase efficiency and financial stability. Budgeting helps to set limits on resource costs and standards of profitability or efficiency for certain types of products, types of business or structural units of the enterprise. Budgeting, in fact, details the financial part of the business plan, which is designed to provide a flow of resources that will create the optimal level of costs to obtain sufficient profits [150].

Characteristic features of budgeting are: short-term; high level of concretization, internal orientation; close integration with control and analysis of deviations [155].

There are two main methods of budgeting: traditional budgeting and zero-base budgeting. The method of zero-basis budgeting is an integral part of controlling the costs of the enterprise and is used not only in the planning process, but also during the remediation audit. Rehabilitation measures aimed at reducing production costs should be carried out on the basis of zero-based budgeting.

The sequence of stages of zero-basis budgeting is as follows:

1. The company's management defines strategic and operational goals and decides on the scope of zero-based budgeting.
2. Management of structural units defines partial goals and brings them to separate functional units.
3. Heads of departments develop specific targets for individual functional units.

4. Heads of departments determine alternative methods of achieving the planned tasks and the corresponding costs.

5. The management of divisions defines priority directions of use of available limited resources and builds a hierarchical number of priorities.

6. The company's management compares the data of individual structural subsections, builds its own hierarchical series of priorities and alternatives.

7. At the enterprise level, decisions are made on priorities in the use of resources, the level of production and costs.

8. The planning department develops a budget reflecting benchmarks for individual decision makers.

9. The controlling department checks the level of use of budget indicators and analyzes the reasons for deviation of the fact from the plan.

Applying the budgeting system, the company gets the opportunity to:

- make real forecasts of financial and economic activities;
- timely identify the most "bottlenecks" in the management of the enterprise;
- quickly calculate the economic consequences of possible deviations from the planned plan and make an effective decision in a timely manner;
- coordinate the work of structural units and services to achieve this goal;
- to improve the quality of enterprise management through operational tracking of deviations from the plan and make timely decisions [133].

Expected results from the implementation of budgeting:

- the company and its managers receive procedures for regular financial planning and control over budget execution;
- the level of financial discipline of managers and managers of the enterprise increases;
- the company has an annual budget.

The expediency of budgeting in enterprises is due to the fact that the construction and analysis of budget forms provides information to management to justify and predict the consequences of a management decision (production, investment, marketing, etc.), evaluation of results compared to goals set in the financial plans of previous periods.

Despite the existence of undeniable advantages, budgeting is also accompanied by a number of negative aspects for companies that are trying to use it within the existing system of financial planning (Fig. 5).

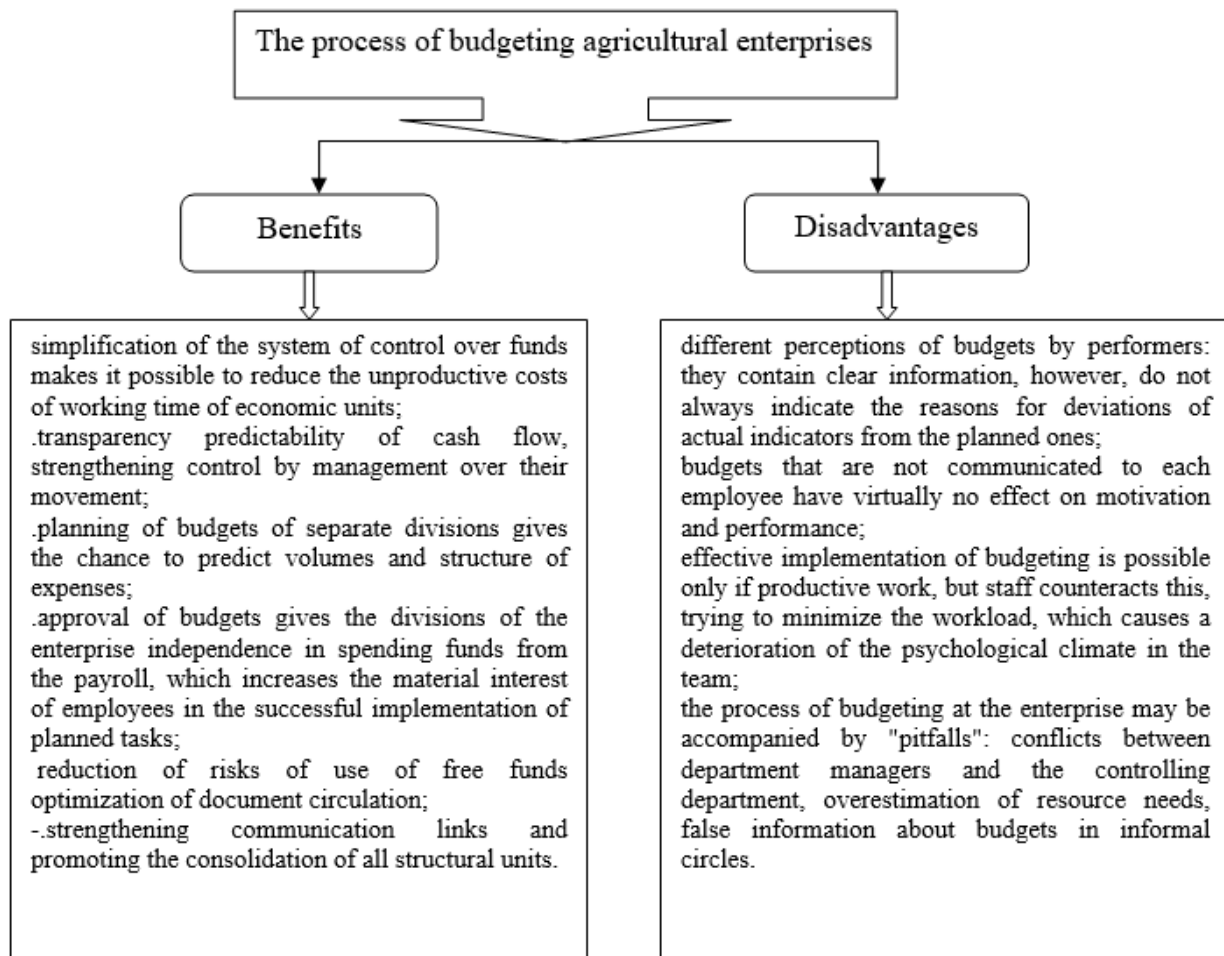


Figure 5. Advantages and disadvantages of implementing a budgeting system at the enterprise

Full budgeting includes 3 components:

1. Budgeting technology (financial planning tools, the procedure for consolidating budgets).
2. Organization of budgeting (financial structure of the enterprise, regulations of budgeting and budgetary control, distribution of functions and responsibilities between levels of management, schedule of document circulation).
3. Automation of financial calculations (selection and implementation of software, staff training) [155].

All these elements are closely related and the absence of at least one of them will reduce the efficiency of budgeting.

To overcome the shortcomings of budgeting, it is necessary to comply with the following conditions [153]: to improve the organizational structure of the enterprise, which will allow you to personalize the functions and responsibilities of managers; clearly structure all processes, identify those responsible for them in order to automate operations and simplify the budgeting process; standardize data to establish their joint use by all business units of the enterprise; to improve the accounting system, because it is a "supplier" of the necessary data; integrate budgeting with the organizational and information structures of the enterprise.

In times of low financial efficiency and plateau capacity of agricultural enterprises, the need and feasibility of implementing advanced management technology - budgeting - is axiomatic, because its task is to coordinate all aspects of activities and efforts of all economic units to achieve the intended results and ultimately ensure high business efficiency. . Therefore, we can draw the following conclusions on this issue: economic efficiency and strengthening the financial stability of the enterprise, which is achieved by coordinating the activities of all its structural units of agricultural enterprises, aimed at achieving a quantitatively and qualitatively defined end result.

2. The projected results of the system of budgeting at the agricultural enterprise are:

- formation of a system of regular financial planning and control;
- the possibility of drawing up a consolidated budget of the enterprise for different time intervals (month, quarter, half-year, year, etc.);
- increasing the level of manageability of the enterprise; growth of qualification of agrarian personnel of the enterprise as a result of studying of methods of financial planning and endowment with additional powers for drawing up of this or that budget; improving the financial and economic performance of the enterprise as a whole, etc.

3. The system of budgeting is interconnected with the systems of operational, financial, management accounting, which is a single accounting system of the



enterprise. The method of management accounting for the effectiveness of the budgeting system is the method of accounting for the centers of financial responsibility, the use of which is the most appropriate.

Thus, budgeting today is becoming the most important competitive advantage of Ukrainian enterprises. Only a properly organized process of financial planning and budget management allows the company to move forward. It is necessary to understand that internal budgeting is not so much a tool as management technology, that budgeting is an indicator of the quality of management in the enterprise, the compliance of the level of its managers and management decisions with modern requirements.

In modern business conditions, one of the ways to ensure the competitiveness of agricultural enterprises is the application of strategic approaches to the management of the enterprise as a whole and its costs, which are extremely important object of management. strategic cost management, which ensures efficient operation, financial and economic stability of agricultural formations in the market, occupies a special place in the enterprise management system, which is the area of macro- and microeconomic processes that shapes the economy and ensures its economic independence and competitiveness.

Cost minimization is an important criterion for optimizing the activities of each business entity. cost reduction can provide the company with increased competitive advantage in the market, allows you to competently and freely pursue pricing policy, increase demand for the company's products and be able to get a larger net profit [135].

To increase the competitiveness of products, each company tries to minimize the cost of production while improving its quality. in the conditions of economic transformation this process is possible with the use of benchmarking methods.

Benchmarking is a systematic activity aimed at finding, evaluating, improving and applying in their own activities the best methods and tools of other firms, regardless of their size and industry affiliation [140, p. 64].

The use of benchmarking can increase efficiency, reduce costs for their own development (strategies and processes) by copying and refining others, continuous improvement of the enterprise by systematically comparing elements of activity with

similar elements of a more successful enterprise at the macro and micro levels.

Cost management provides high-quality expanded reproduction of domestic agricultural enterprises, provided that the products are focused on the real needs of the Ukrainian market, taking into account the fact that their activities are of great importance for meeting collective and social problems.

The task of managing the costs of the enterprise is to reduce their level. However, this is not the main goal, as reducing costs can lead to lower quality of products and customer service, abandonment of production and sale of products that are in demand but require significant costs. Therefore, the main purpose of cost management of the enterprise is to increase its competitiveness and efficiency.

There are several types of benchmarking activities. They differ in the complexity of the tasks (simple and complex), the direction (internal and external), the level at which benchmarking (strategic and operational). Which of the types of benchmarking should be used in each situation can be decided on the basis of the information presented in Figure 6 [138].

The basis for the choice of measures to reduce the costs of agricultural enterprises is a comparative assessment of the cost of its products with the cost of competitors. If the necessary data are available, a comparative analysis of the cost structure and the amount of costs by elements per unit of output is also informative.

The company's ability to implement a cost management measure depends on the volume of agricultural production and available investment resources. For unprofitable enterprises, only organizational measures of operational management are available, which do not require significant investments, however, contribute to the growth of resource efficiency.

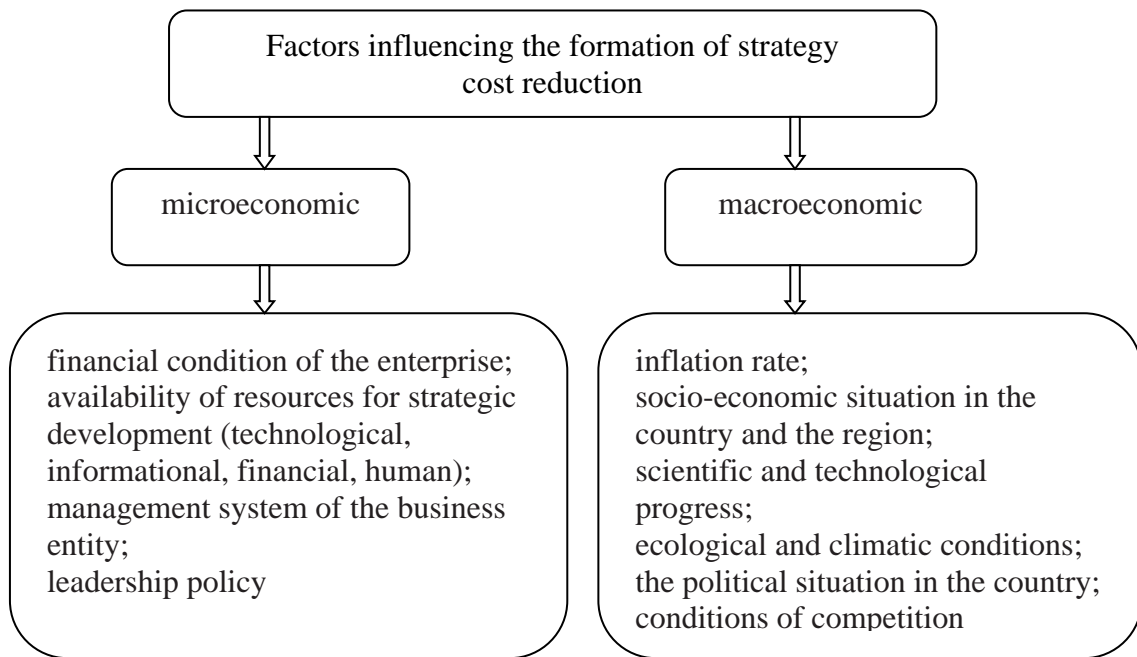


Figure 6. Factors influencing the formation of cost reduction strategies

Procurement service cooperatives play a special role in reducing the cost of purchasing seeds and planting material, fertilizers, plant protection products, fodder, etc. for small enterprises.

It is advisable to gradually move to high-yielding regional varieties of crops and hybrids, animal breeds. Financing of purchase of equipment can be carried out on the basis of leasing and rent (for small and insufficiently effective enterprises) and self-financing or crediting (for large commodity producers).

In addition, high-performance large enterprises in the long run should gradually automate and later computerize production and management processes. Promising for them are the robotization of production and development of geographic information technologies.

The concentration of capital in highly specialized large enterprises will significantly reduce costs due to the effect of scale. The development of specialization is economically justified only for enterprises with significant investment resources.

There are three areas in which there may be significant differences in the cost competitiveness of enterprises:

- 1) suppliers;

2) own activity;

3) sales channels of manufactured products.

To address issues in the first direction, the company's management can take measures to find suppliers with a more favorable pricing policy for the acquisition of resources.

To improve the situation related to internal factors influencing the amount of costs, managers can take the following measures:

- develop measures to increase productivity;
- to ensure the efficient use of enterprise assets;
- to stop activity on unprofitable branches of activity;
- invest in resource-saving technologies, etc.

To do this, the company must develop a general concept (program), including:

- a set of measures for more rational use of material resources (introduction of new technologies, improvement of regulatory framework, introduction and use of more advanced materials, use of production waste, improvement of product quality and reduction of the share of waste);

- measures related to determining and maintaining the optimal size of the enterprise, which minimizes costs depending on the volume of production;

- measures related to improving the use of fixed assets (release of surplus materials and equipment, lease of property, ensuring a more complete loading of the equipment of the enterprise);

- measures to improve the use of labor;

- measures related to improving the organization of production (deepening concentration, specialization, diversification of production).

One of the most effective methods of reducing production costs is to conduct operational cost management. Current cost management involves the development and monitoring of the implementation of production cost estimates, which will not only control the overall level of costs and their dynamics, but also compare their size by structural units and branches.

In modern market conditions, the sustainable operation of the enterprise depends

on the internal capabilities of the enterprise to effectively use all the resources at its disposal. Defining measures to reduce the cost of production is very important for any company, because through their implementation the company increases its profits and, consequently, has the opportunity to expand and further economic and social development.

The problem of cost management is relevant for almost all businesses and organizations, regardless of ownership, size and financial condition. But it is especially relevant for large and medium-sized enterprises, where costs are quite high, and their management system is more complex and risky. That is why in modern conditions to ensure a stable position of entrepreneurs in the market it is necessary to improve their cost management system, which includes both the process of making optimal decisions on the use of resource potential of the entity and finding ways to implement them and determine reserves to reduce costs. This will enable companies to operate successfully in a competitive market environment.

Thus, in modern market conditions, the sustainable operation of the enterprise depends on the internal capabilities of the enterprise to effectively use all the resources at its disposal. Defining measures to reduce the cost of production is very important for any company, because through their implementation the company increases its profits and, consequently, has the opportunity to expand and further economic and social development.

## **7 Prospects of innovative development in the crop industry in Ukraine**

Crop production is a complex branch of agriculture. Its products account for more than half of the gross output of agricultural products. The crop industry is crucial in the development of other industries, especially livestock, as its fodder base is created mainly in this industry.

The current development of enterprises, industries, the state is impossible without the improvement and use of innovations and technical and technological solutions, as the level of activation of the latter determines the overall level of competitiveness, both domestic and foreign markets. The introduction of innovations increases productivity, saves various types of resources, reduces costs and reduces the cost of agri-food products, increase volumes and increase the efficiency of agricultural production, which affects investment [156].

Many domestic scientists have studied the prospects for the development of enterprises in the crop sector, in particular, such as: P.T. Sabluk, V.M. Grinkova, H.A. Baturyna, I.V. Журавкова, M.H. Попов, Y.A. Korchagin and others. The main challenge of global innovation and technological processes is the development of agriculture, which is aimed at the dynamism of agricultural production through the use of advanced technologies, the safety of some of them has not yet been studied in detail. Thus, the processes may be accompanied by the emergence of various risks, for example: the negative impact on the health of the population both through consumer products and on territories where products are grown; neglect of natural resources, especially soils and groundwater due to the intensification of agricultural and agri-food activities and uncontrolled use of insufficiently proven innovative technologies in the production process [157].

First of all, it will affect the economic stability of the state, the level of income of enterprises, reducing the demand of the population for products due to the inclusion in its cost of additional costs and so on. It is very important to develop implementation standards and an effective mechanism for the use of innovative technologies in order to obtain economic and social effects.

The research studied and summarized the problems and aspects of the efficiency of crop production in different periods, offered recommendations and ways to solve certain economic problems to ensure the effective functioning of this leading sector of the economic complex of the country. However, important questions remain about the goals and parameters of both development and high efficiency of production in crop production, the principles of its operation, the use of certain tools of price and other support for agricultural producers, prospects for achieving a coherent agricultural policy for organic farming and production of environmentally friendly crops. The production of plant products is a constant task of all economic entities in the agricultural sector and is aimed at shaping the food market. The efficiency of crop development is formed under the influence of many factors, including soil-climatic, technological, biological and others, which complicates the search for additional opportunities to improve it.

The main challenge of global innovation and technological processes is the development of agriculture, aimed at increasing agricultural production through the use of technologies whose safety has not yet been determined.

These processes are accompanied by various threats, including negative impact on the health of the population, neglect of natural resources due to increasing anthropogenic pressure due to intensification of agri-food activities and uncontrolled use of insufficiently proven innovative technologies in agricultural production [158].

Modern technologies of minimal tillage and precision farming, namely:

1. «Mini-till», this technology involves minimizing the technical and technological impact on the soil during its cultivation, which improves the economic efficiency and environmental friendliness of the process of growing crops by reducing weather and climatic effects, reducing fuel consumption, fertilizers, pesticides plants, reducing the use of agricultural machinery, increasing yields, optimizing crop rotations, improving the environment, etc. (Table 1) [159].

Table 1. Features of use and adaptation of tillage technology «Mini-Till»

Benefits	Disadvantages	Problems
<ul style="list-style-type: none"> <li>- less dependence of yield on precipitation;</li> <li>- improving the filtration properties of the soil;</li> <li>- accumulation of organic matter and humus in the soil due to the preservation of crop residues;</li> <li>- increase in soil fertility over time - up to 45% for 5-7 years;</li> <li>- lack of soil compaction and gradual reduction of its density with prolonged use of Mini-Till;</li> <li>- reducing the number of passes of equipment and widespread use of combined tillage techniques that reduce the number aisles of equipment;</li> <li>- preservation of more moisture in the soil;</li> <li>- reduction of irrigation when growing vegetables on irrigated lands by 2.5-3 times;</li> <li>- reducing the need for herbicides over time;</li> <li>- reducing the consumption of mineral fertilizers over time;</li> <li>- availability of promising technologies that could further minimize the use of herbicides while maintaining other positions;</li> <li>- positive qualities</li> </ul>	<ul style="list-style-type: none"> <li>- the need for shredding straw and other post-harvest residues, their scattering;</li> <li>- the need for annual application of herbicides;</li> <li>- habit of weeds to herbicides;</li> <li>- high cost of herbicides;</li> <li>- the need for herbicide-resistant hybrids;</li> <li>- the need for new equipment - more powerful and expensive tractors (in the case of foreign equipment - high cost and incomplete compliance of foreign equipment with the requirements of the climate of Ukraine);</li> <li>- increasing the incidence of fusarium wilt (plant disease caused by fungi of the genus Fusarium);</li> <li>- the need for green manure (an effective means of weed control without the use of herbicides)</li> </ul>	<ul style="list-style-type: none"> <li>- lack of clear recommendations for the transition to technology;</li> <li>- weak state support, lack of subsidies;</li> <li>- the need to modernize the fleet of agricultural machinery;</li> <li>- investment needs;</li> <li>- a significant increase in crop contamination;</li> <li>- the need to take into account the characteristics and properties of the soil - density, humus content, mobile forms of nutrients;</li> <li>- soil compaction and acidification;</li> <li>- Deterioration of physical properties and phytosanitary condition of soil and crops</li> </ul>

Source: compiled by the author for [157, c. 4]

2. «No-till» or «Zero-till» (zero tillage technology) as a method of tillage that does not offer mechanical solutions to remove seals at a depth of 30-35 cm. It is an ideal tillage system to protect the surface from erosion (Table 2) [160].



Table 2. Features of use and adaptation of «No-till» tillage technology

Benefits	Disadvantages	Problems
<ul style="list-style-type: none"> <li>- lack of soil compaction and gradual reduction of its density with prolonged use;</li> <li>- no plowing and pre-loosening in the technology of reducing the mechanical load on the soil;</li> <li>- erosion control;</li> <li>- accumulation of organic matter;</li> <li>- increase of water infiltration;</li> <li>- increasing soil fertility and increasing crop yields;</li> <li>- reduction of tillage costs</li> </ul>	<ul style="list-style-type: none"> <li>- the need for annual application of herbicides;</li> <li>- the need for shredding straw and other post-harvest residues, their scattering;</li> <li>- the need for new technology;</li> <li>- increasing the incidence of fusarium wilt;</li> <li>- the need for green manure (an effective means of weed control without the use of herbicides)</li> </ul>	<ul style="list-style-type: none"> <li>- significant financial costs for the renewal of the machine-tractor fleet;</li> <li>- high probability of land littering and the need for weed control;</li> <li>- possible delay in the emergence of seedlings;</li> <li>- increasing demand for nitrogen;</li> <li>- deterioration of phosphorus nutrition of plants;</li> <li>- increasing the cost of herbicides;</li> <li>- inefficiency of organic fertilizer</li> </ul>

Source: compiled by the author for [159, c. 5]

3. «Strip-till» (strip tillage) is a system of rational nature management, in which there is minimal tillage. It combines the advantages of conventional tillage, such as drying and warming, with the possibility of protecting them in arable land due to the fact that only the area of soil where the seed row is laid is affected. Also, this technology allows you to successfully carry out root fertilization of plants using both natural and organic fertilizers using appropriate techniques (Table 3) [161].

Applying minimal tillage technologies, regardless of their process features, have similar problems in adapting to domestic economic conditions. The latest technical and technological solutions to crop production are related to:

- breeding work and genetic engineering;
- organic farming;
- micro-irrigation;
- nanotechnology.

To intensify the production of crop products, the most common is the use and implementation of advances in breeding and genetic engineering.

About 120 scientific institutions engaged in selection work with more than 300 species of plants are engaged in the selection of agricultural crops in Ukraine.

However, traditional breeding requires sufficient time and large-scale crossbreeding and the studied breeding material, so it is replaced by a marker, which is characterized by the fact that having certain genes allows you to control them during breeding, which increases the reliability and efficiency of selection creation of new varieties [160].

Table 3. Features of use and adaptation of technology of tillage «Strip-till»

Benefits	Disadvantages	Problems
<ul style="list-style-type: none"> <li>- favorable conditions of contact of soil with seeds;</li> <li>- warms the soil and provides moisture retention in the soil;</li> <li>- allows soil nutrients to better adapt to the needs of plants, while not affecting the soil surface between rows;</li> <li>- reducing the number of races in the field;</li> <li>- resistance to erosion;</li> <li>- here is a possibility of combining crops and radical fertilization;</li> <li>- increasing soil fertility and yield;</li> <li>- reduction of fuel costs, fertilizers and labor costs</li> </ul>	<ul style="list-style-type: none"> <li>- dependence on climatic conditions (for example, in the case of early frosts, the technology is inefficient);</li> <li>- when working with grains or cereals, a small error is possible, because in front of the farmer rows just wide 20–25 cm. This can be easily contrasted with the automatic control system;</li> <li>- the need for powerful modern technology to pull equipment for strip cultivation of the entire field;</li> <li>- Buying new tractors can be too expensive</li> </ul>	<ul style="list-style-type: none"> <li>- the need to replace the machine-tractor fleet (tractors with GPS navigation system);</li> <li>- significant financial costs;</li> <li>- inefficiency of strip tillage in fields with difficult landscape conditions;</li> <li>- the possibility of inefficient application of fertilizers compared to the systems of zero and minimum tillage;</li> <li>- the system is not suitable for clay soils;</li> <li>- the difficulty of fine-tuning agricultural machinery;</li> <li>- requires the use of modern IT technologies with the involvement of satellite communications</li> </ul>

Source: compiled by the author for [161]

The effective development of innovation processes in the crop industry occurs while ensuring optimal relationships in three relatively independent areas: science, technology, production.

The development of agroinnovation by crop enterprises is gradually creating conditions for accelerating scientific and technological progress in the agricultural sector (Table 4) [162].

Innovative development of crop enterprises is associated with the development and implementation of intensive agricultural technologies.

To optimize the functioning of crop enterprises and improve their competitiveness in the implementation of agricultural policy on a market basis, the development of infrastructure with foreign investment, large private investments and the creation of an agricultural cluster of crop enterprises is of particular importance.

Table 4. Stages and content of the innovation process in the field of crop production

Stages	Content
Generation of innovative ideas	Conducting basic research. Development of new directions of scientific research, creation of scientific knowledge, innovative ideas, concepts, etc
Creating innovations	Conducting applied research and development. Registration of completed scientific and technical developments as objects of intellectual property in innovation
Implementation of innovations	Production and sale of science-intensive products. Adaptation of innovations to agricultural production
Advocacy and dissemination of information about innovations	Promotion of innovations through the governing bodies of the agro-industrial complex. Information support of various organizational and legal forms of agro-industrial complex. Activities of information and consulting services. Activities of mass media
Development and diffusion of innovations	Organizational and economic mechanism of innovation development by commodity producers. Contractual relations of commodity producers with creators of innovations and information and consulting services. Initiative and activity of producers. Solvent demand of producers for innovations
Formation of the effect of innovation	The efficiency of the development of innovations in the agro-industrial complex is determined by the ratio of additional products or profits received by producers, and the cost of creating (acquiring) innovations, their development in production

Source: compiled by the author for [162]

Innovative development of crop enterprises is associated with the development and implementation of intensive agricultural technologies.

To optimize the functioning of crop enterprises and improve their competitiveness in the implementation of agricultural policy on a market basis, the development of infrastructure with foreign investment, large private investments and the creation of an agricultural cluster of crop enterprises is of particular importance.

The formation of agrarian innovation structures is essential to increase the competitiveness of crop enterprises. The center of their formation in the agro-industrial complex of Ukraine could be agrarian technopolises, created one in each of the regions of the state. They will allow to decentralize agricultural scientific and technical

potential, become regional centers of technological development, which will unite in the research and production process agricultural educational institutions of different levels, research institutes and stations, enterprises of various forms of ownership for production and processing of agricultural products and raw materials.

The advantages of cluster formations in the enterprises of the crop industry are [163]:

- effective use of the potential of the territories where the production of crop products is concentrated, which will allow to use these advantages to ensure higher technical and economic performance indicators;

- strengthening competitive advantages through the establishment of direct links between cluster members, formed for joint activities to produce a competitive product;

- access to innovation, knowledge and know-how (both competition of partners and intensive exchange of information and mutual requirements that motivate them to innovate).

Improving the efficiency of crop production is primarily due to higher yields.

To increase yields you need:

- timely application of mineral and organic fertilizers. Making them into the soil in full and in compliance with the technology of crop production;

- increasing material interest in the results of work;

- compliance with the technology of growing different crops;

- use of herbicides to control weeds;

- introduction of more high-yielding and drought-resistant varieties

To improve the innovation and technological equipment of the crop industry, it is necessary to make a number of changes, which, first of all, should relate to:

- institutional and legal support for agricultural methods;

- intensification of the development of agricultural science and intellectual potential of the agro-industrial complex;

- improving the level of training and retraining of agricultural workers;

- stimulation of the state financial support of the agricultural enterprises engaged in innovative activity;

- attracting investment in the implementation of scientific and technical achievements in production;
- implementation of relevant programs and strategies for the development of innovation in agriculture;
- development and implementation of effective mechanisms to stimulate innovation in the agricultural sector;
- state support in the field of selection, genetic engineering and nanotechnology;
- formation of organizational and economic mechanism of technological security of the agricultural sector;
- increasing the competitiveness of agricultural products in the context of environmental and biodevelopment, etc.

The use of innovative technologies in the agricultural sector ensures the progressive development of agriculture, promotes investment, strengthens economic and technological security. However, with the changing conditions of the industry, new technologies are changing and being introduced, which require further research and detailed justification.

## **8 Concepts of marketing and marketing policy development in agricultural enterprise management system**

Modern economic information allows us to consider marketing as a way or philosophy of life, discipline, as well as organizational function, full discipline and one of the main functions of organizations.

The study of the peculiarities of modern marketing is widely covered in the works of foreign scholars such as F. Kotler, R. Alexander, R. Hoskisson, L. Azzolini, E. Bruning, B. Schroeder and others. Peculiarities of modern marketing in agriculture in the world have been studied by such scientists as M. Lundberg, R. Coles, G. Shepherd, M. Mullenberg and others. Significant contribution to the development of theory and practice of modern marketing in the national market has been made by scientists such as E. Romat, A. Fedorchenko, J. Larina, R. Logosha, M. Oklander, E. Krykavsky, M. Malik, O. Yerankin and others.

It should be noted that since the 50's of the twentieth century, when marketing acquired the content of a separate systemic economic discipline, this field of knowledge has undergone radical clarifications and changes. According to R. Hoskinson [164, p. 249 – 267], M. Lundberg [165, p. 145 – 153], etc., modern marketing is much broader and pragmatic. It can be argued that there is currently a certain ideological conflict at the organizational level between the classical postulates and what should be considered a post-industrial stage of marketing. At the same time, despite the promotion of knowledge and modern marketing philosophies by successful organizations and economically developed countries, traditional ideas about the principles of classical marketing remain quite common.

The situation described above has given rise to various definitions of marketing. Thus, the American Marketing Association (AMA) in 1960 officially defined [166] marketing as the performance of entrepreneurial activity that directs the flow of goods and services from producers to consumers. Instead, experts from Ohio State University (USA) have given a broader definition [167], namely: marketing is a process in society in which the structure of expectations of economic goods and services is anticipated or

expanded and satisfied through the concept, promotion and physical distribution of such goods.

Most often today, the above definitions are considered obsolete due to the emphasis on the physical distribution of goods [168, 169]. Definitions of marketing, which emphasize the profitability of the organization, are also criticized. Thus, according to the 1983 definition of the Institute of Marketing in London [170], marketing includes identifying, anticipating and effectively meeting the needs and desires of the client with a profit for the company.

Thus, the first concepts of marketing did not focus on meeting the needs or desires of consumers [171], but the focus on profit as a necessary goal or purpose of marketing is often not widely recognized; marketing itself was recognized as a business, commercial activity or function of the organization, which is used to achieve both profitable and non-profitable goals [169, p. 18]. Modern marketers and practitioners usually emphasize customer satisfaction, versatility, and the exchange process in their definitions of marketing. But in modern marketing theory should be recognized the spread of different terminology depending on the context and many other factors (Table 1).

Table 1. Features of the modern definition of marketing in the world

№ n/a	Definition of marketing	Author	Notes
1	2	3	4
1	Human activities aimed at meeting the needs and desires of the exchange	Kotler F.	
2	Anticipation, management and satisfaction of requirements through the exchange process	Evans J. R. and Berman B.	
3	Activities carried out by individuals or organizations for commercial and non-commercial purposes aimed at satisfying by exchanging consumer demand for products, services, people and ideas	Menzer J.T. and Schumann D.V.	
4	Organizational function and set of processes for creating, communicating and delivering value to customers, as well as for managing customer relationships in a way that benefits the organization and its stakeholders	American Marketing Association	

Continuation to the table. 1

5	Activities in the field of material production and (industrial) services aimed at meeting the needs (enterprises, institutions and organizations in raw materials, materials, components, equipment, services) based on the study of these needs	Krykavsky E.V.	For industrial marketing
6	A means of prolonging the longevity of commodity production by stimulating sales, a form of resolving its contradictions and shortcomings of irrational loss of resources, manifested in reduced profits, profitability, increasing stocks of finished products	Oklander M.A.	
7	The system of using (management) concept and practical tools (marketing) by subjects (public management activities), which is implemented by meeting the needs of society or its individual communities through mechanisms of exchange of certain actions and resources	Romat E.V.	For marketing in public administration
8	A system that encompasses processes (identifying, establishing, supporting, expanding, and, if necessary, ending relationships with employees and other internal) consumers (at all levels of the organization) to meet the needs of all parties involved, achieved through exchange of commitments and their implementation)	Fedorchenko A.V.	For internal marketing
9	Identification and satisfaction of human needs through the metabolic process	Olakunori O.K., Edjionuemu N.G.	
10	Activities (aimed at finding new areas and ways to use the potential of the enterprise, development on this basis of new products and technologies and their) promotion in the market to meet the needs and demands of consumers more efficiently than competitors, way to obtain profits and providing conditions for long-term survival and development in the market	Ilyashenko S.M.	For marketing innovations
11	The social and managerial process is aimed at meeting the needs and desires of consumers by creating, offering, promoting, selling valuable goods and services in order to obtain and / or maximize profits	Lutsyak V.V.	

Source: generalized and supplemented by the author based on the study of literary sources

Given the above definitions, it can be argued that it is common to build marketing functionality based on factors such as «needs», «desires», «demand», «satisfaction» and «exchange process», the implementation of processes that allow individuals or organizations find what they need, and meet needs and desires through the exchange process. This means that marketing is not just buying, selling or



distributing already manufactured goods and services, it precedes production and is directly involved in providing the relevant information needed to manage production, helping to offer desired goods and services, and so on. Thus, modern marketing involves a wide range of different activities, directly from identifying the needs of people to their satisfaction with relevant goods and services; accordingly, all the staff of the organization should be involved in it, because it is a prerequisite and basis for the existence of the organization [172, p. 26 – 32].

Obviously, marketing is a universal phenomenon and process regardless of background conditions. Its principles, concepts and methods can be applied everywhere and in all organizations. Marketing is also dynamic because, like philosophy, it is constantly evolving and improving to meet the needs and desires of people who are also dynamic.

According to S. Dibbs [173, p. 13 – 30] and others, at the level of a representative firm, those members of the management coalition who provide important resources will have more influence and control over the organization, as they are considered critical to the success of the organization as a whole. In realizing the main goal of business – creating a satisfied customer – any company must perform two main functions: marketing and innovation [174, p. 55 – 56]. These aspects of the marketing concept indicate that the executive branch of the organization should prioritize the interests of customers. The organization's product must be adapted and changed in response to changing customer needs; while the nature of profit allows us to describe it as just a reward for creating satisfied customers.

As you know, the marketing concept became popular in the world in the 1960s [175, p. 4 – 16]; it is most common primarily in large enterprises. At the same time, producers of consumer goods tended to adopt and implement the concept of marketing to a greater extent than industrial. Significant differences in the scheme of reaction of enterprises to the concept of marketing were described by S. Banerjee [176, p. 489 – 513]. Thus, S. Banerjee reported on the effects of the fact that many companies used the so-called «Attributes» of marketing, but did not realize its essence, which certainly limited the effectiveness of marketing operations.

The emergence of the concept of corporate strategic planning has further limited the spread of the marketing concept. Thus, the main goals of strategic planning are to maintain the competitiveness of the enterprise and improve its internal efficiency, while in fact corporate goals were focused mainly on achieving profits, investments and increasing market share.

G. Stratis and T. Powers believed that this concept considers market opportunities in terms of market growth and the ability of the company to dominate in selected market segments [177, p. 165 – 191]. Thus, the market was defined as a set of competitors, not customers, while the concept of strategic planning not only changes the focus of management on customers, but also eliminates the role of marketing in strategic decision making. This belief is based on the classification of R. Rast [178, p. 109 – 127], where marketing strategy is an operational, not a strategic decision. According to R. Rast, strategic decisions involve the choice of product market mix of products offered and the markets in which these products should be sold. The author did not consider these decisions marketing, because he defined marketing as a broad activity related to product perception, advertising, sales promotion, product distribution (including transportation and warehousing), contract management, sales analysis and, most importantly, product maintenance [178, p. 109 – 127]. This determined the traditional role of marketing - to create demand for products. Thus, G. Stratis and T. Powers found that many qualified marketing managers moved to positions in strategic planning, as they failed to think creatively and provide proper incentives and management for R&D in product development. G. Stratis and T. Powers believed that these problems arose due to excessive pressure on marketers to ensure short-term sales and financial results [177, p. 165 – 191]. Supporting this position, N. Percy and N. Rich argued [179, p. 145 – 161], that ideological dominance was mainly associated with the development of marketing programs and did not focus on the mission of the enterprise, nor on gaining competitive or consumer advantage. Accordingly, these researchers identified seven limitations within the discipline of marketing, namely: consolidation of the brand for business unit analysis, interdisciplinary isolation of marketing, inability to explore synergies in marketing

program development, short-term marketing perspective, lack of competitive competitiveness, international orientation, and international orientation. strategic boundaries. Similar concerns were also expressed by N. Percy, who claimed [180, p. 6 – 28] that marketers are too slow to address some important issues and tend to stick to outdated characteristics of strategic processes for too long.

But changes in the environment in the 1980s affected the implementation of the concept of corporate strategic planning. They were dictated by the fact that the business environment began to be characterized by an unprecedented level of diversity, richness of information/knowledge, as well as its turbulence. The main reason for these changes in the environment was the rapid spread of technology. Manufacturing companies need to modify their production systems and models with new technologies. In some cases, new technologies have shortened the life cycle of the market, and technological developments have transformed the world into a market without borders, created global competition. Finally, new information technology made consumers more informed, more aware and complicated their behavior in the selection process [181, p. 57 – 71].

In view of this, it can be argued that radical changes in the business environment and the discovery of the strategic role of quality have led to the reopening of the marketing concept. As noted in many powerful companies such as General Electric, GTE, 3 M, Hewlett-Packard, Ford and others. rebuilt their marketing departments. Thus, in the works of I. Harris and T. Ruffley, the importance of customer satisfaction and the corresponding marketing concept was confirmed [182, p. 587 – 603]. It has been argued that marketing is not a function but a way of doing business. At the same time, K. Moller proposed [183, p. 439 – 450] redefining the role of marketing in this new business environment, because it has been argued that marketing operates at three different levels of strategy: corporate, business level or strategic business unit (SBU) and functional or operational. Accordingly, three aspects of marketing were identified – marketing as a culture, as a strategy and tactics; at the same time, each marketing aspect was inherent in each strategic level, but the weight given to individual aspects of marketing changes with the level of strategy and hierarchy of the organization.

N. Percy was considered [180, p. 6 – 28] the future role of marketing from another point of view. Thus, it was argued that in the future marketing will become a functional basis, unless there are significant changes in the organizational structure, where it will become a leading function. It was also predicted that marketing could be a subordinate function if the organization successfully implements a hybrid structure with a strong focus on the process.

We can conclude that business marketing developed as a philosophy of business and management (concerned primarily business decisions, goals and business orientation). Instead, agricultural marketing developed as a study of economic structure, the effectiveness of the agricultural marketing sector, the role of government intervention to improve productivity and increase the share of food production costs derived from agriculture [184, p. 76 – 81].

Agricultural marketing in Ukraine has largely received impetus for development in the first years of the XXI century. after the formation of a market economy, recovery in general to the pre-reform level of the industry, achievements in resource conservation and growth of output per unit of labor, land and material resources [185, p. 53 – 63]. The problem of low prices for agricultural products was considered to be related to the inefficiency of the distribution of agricultural products from the enterprise to the consumer.

Agricultural economists in Ukraine have traditionally believed that marketing is a process that takes place after a product leaves the gates of the farm or after a change of ownership. This typical definition was proposed by G. Shepard and G. Futrell, who noted [186] that physically, agricultural marketing begins when the goods are unloaded at the gates of the farm and ends when the goods reach the consumer. Hence, the objects of agricultural marketing are material – such as transport and packaging departments, as well as technological developments in the field of storage and packaging. E. Krykavsky noted [24, p. 345] that both marketing and logistics have a common theoretical and applied basis, but the lack of joint decision-making mechanisms for supply, production, distribution, total costs, and customer service reduces their impact on value formation and provision sustainable development of the enterprise.

Since the 1950s, theories of general marketing (based on the marketing concept) and agricultural marketing (ie based on regulatory policy) have been considered as different branches of marketing. However, over the last twenty years, various economists have substantiated the possibility of implementing (partly obviously) marketing management to agricultural marketing theory; it was suggested that better coordination within the general theory of marketing and agricultural marketing has advantages [188, p. 301 – 315].

O. Yerankin outlined [189, p. 131 – 140] the fact that the penetration of marketing philosophy in the agricultural economy of Ukraine is in some way «frozen», and most agricultural enterprises are in the early stages of evolution of the concept of marketing. The reasons for this are determined as follows: the traditional role of the state in a centralized economy; mentality and level of qualification of managerial staff; features of the competitive environment; shortage of certain types of products; unformed (at least until 2000) system of effective (private) owners and, accordingly, lack of interest in the end result; deliberate inhibition of market reforms in the agro-industrial complex; dependence of producers on state aid – cost psychology. In particular, in it is said that increasing society's requirements for environmental products will force Ukrainian agricultural enterprises to constantly change production standards for energy and resource conservation in accordance with environmental standards and so on.

G. Breimier identified three characteristic approaches to marketing in agriculture [190, p. 115 – 165]. The first approach reflects a simplistic and common notion: marketing is everything that happens after the product leaves the gates of the agricultural enterprise, ie production takes place in the enterprise, and marketing covers everything that happens between the enterprise and the consumer. However, the second and third approaches show that the first approach is unacceptable in today's business environment. Thus, the second approach focuses on the coordinating role of marketing, marketing takes place wher the transformation of the individual, and therefore it should be considered as a coordinator of economic activity. The most important role in coordinating these actions is played by price, which may explain the considerable

attention to the analysis of prices and effectiveness of marketing activities. The third approach considers marketing as a form of market development. With this approach, the focus is on growing demand and shaping the purchasing power of consumers through differentiation and product promotion. This approach, in our opinion, is closest to business marketing, as it focuses on consumption and consumer behavior and aims to eliminate the demarcation between production and sales. This in turn involves interaction between supply chain members, which is becoming a new factor in efficiency.

D. Bateman was considered [191, p. 171 – 224] in the field of agricultural marketing and describes in detail the role played by alternative marketing structures in agricultural marketing research. At the same time, it was argued that agricultural marketing theory focuses on macroeconomic issues and government policy on the distribution and processing of agricultural products and the activities of enterprises in the industry.

According to M. Müllenberg [188, p. 301 – 315], the theory of agricultural marketing did not adopt the approach of marketing management to the theory of business marketing and considered the competitive strategy in a different way than it was done in the scientific literature on business marketing. According to B. Richardson [29, p. 45], the approach to marketing management (which he called the concept of agribusiness), was perceived very poorly and did not have a significant analytical or research basis. However, some of the marketing theory of agriculture is moving towards the use of a marketing management approach. M. Müllenberg noted, that a number of studies, such as) partially took into account the approach of marketing management, but mainly focused on the behavior of large agricultural enterprises, rather than individual farms.

According to K. Ritson [193, p. 11 – 35], agricultural marketing has developed due to the growing importance of the food marketing sector, and therefore many of the problems faced by agricultural enterprises come from this sector. Taking into account the above factors, K. Ritson classified the subject of agricultural marketing (Table 2) in accordance with the nature of the traditional subjects of agricultural marketing and

the general theory of business marketing, while demonstrating their conceptual convergence.

Table 2. Classification of subject areas of agricultural marketing

Level	Positive	Normative
Micro-level	Consumer behavior, food sales. Study of marketing behavior of enterprises in the agri-food sector.	Application of marketing principles in the food marketing sector. Marketing of agricultural enterprises (including cooperative marketing). Government marketing initiatives.
Macro level	Behavior of agricultural and food markets, analysis of marketing margins, price analysis, the impact of agricultural policy.	Application of the structure / behavior / efficiency approach in the agri-food sector. Aspects of agricultural policy in the interests of society. «Green Marketing». Food producers policy.

Thus, agricultural marketing has many external forms of manifestation. It can be considered as a link between food producers and consumers in terms of both physical distribution and economic communication, designed to facilitate the exchange of goods between enterprises and consumers [191, p. 171 – 224]. L. Polopolus noted that there are many arguments in favor of the fact that the marketing of agricultural products is not an isolated but a holistic process [194, p. 803 – 810].

R. Coles and J. Uhl proposed [32, p. 291] a definition that reveals the content of marketing in agriculture, namely, the implementation of all types of business activities related to the flow of food and services from primary agricultural production to the final consumer. This suggests that different groups are involved in the marketing process (producers, livestock and crop markets, slaughterhouses, elevators and retailers), which should consider the marketing function as a progression around the marketing channel. However, channel conflicts can occur here, as each group may have different goals and objectives.

Fig. 1. illustrates a schematic categorization of agricultural marketing. This illustrates the problems and challenges facing the agri-food sector, while affecting not only the industry level, but also identify factors and considerations on a global scale [196, p. 175 – 187].

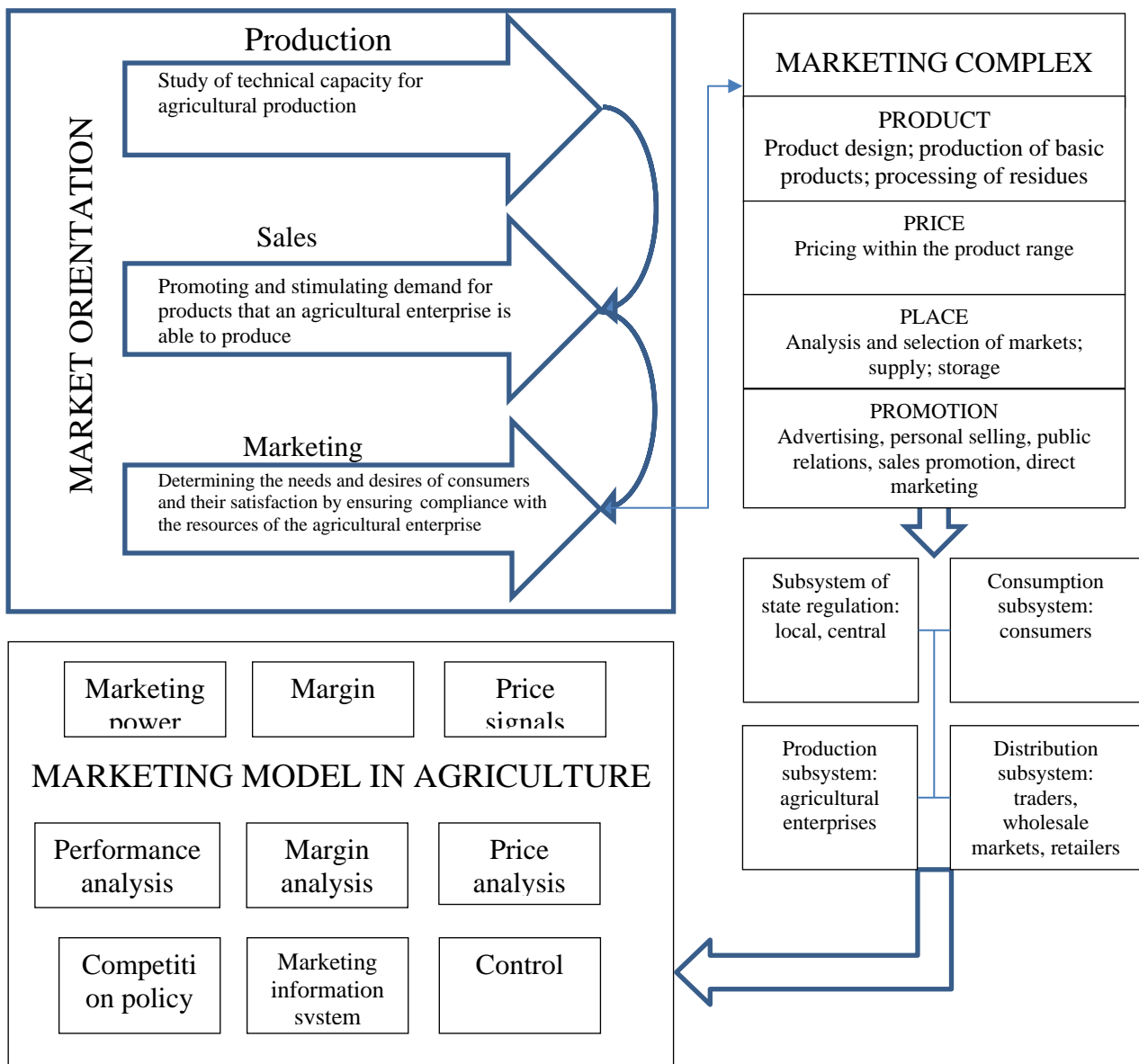


Fig. 1. Categorization of agricultural enterprise marketing

Source: developed by the author for [197, p. 83 – 93]

Based on these studies, it can be argued that the marketing of an agricultural enterprise has historically (epistemologically) evolved from a production orientation to a consumer orientation with a long-term relationship with him. At the same time, for a representative agricultural enterprise, the traditional elements of the marketing complex remain important, taking into account the peculiarities of products and production, namely: goods – product design; production of goods with high added value; production of basic products; processing of residues and waste; price – setting the price within the product range; place – analysis and selection of markets, supply, storage; promotion – advertising, personal selling, public relations, sales promotion,



direct marketing. At the same time, producers, public authorities, consumers, and intermediaries are involved in the marketing process. In response to changes in the external environment, market dynamics, etc., an agricultural enterprise can develop a marketing model that should ensure margins, productivity and competitiveness.

The dynamism of modern market transformations makes it objectively necessary to increase the readiness of economic entities to work in conditions of uncertainty and risk. The efficiency of agricultural enterprises in such conditions is determined not only by the establishment of domestic economic activity, but also its ability to adapt to the rapidly changing external marketing environment.

Given the above, the economic growth of agricultural enterprises is determined by the formation and implementation of effective marketing policy (MP), which is an important tool for realizing their economic interest, forecasting the level of strategic development and competitive advantage.

The issue of formation of marketing policy in the agricultural sector has become a field of research of domestic scientists, including: Androschuk I., Balabanova L., Budnik O., Velichko O., Garkavenko S., Grosul V., Danko Y., Yevchuk L., Yerankin O., Zhilyakova O., Ilyashenko S., Kyrylenko I., Kravchuk I., Krasnorutsky O., Kurbatska L., J. Larina, Mishchenko D., Pavlenko A., Soko P., Solovyov I., Stepanenko N., Khaminich S., Kholod V., Tsyganok V., Shkvarchuk L. and others. At the same time, it should be emphasized that at present there is no in-depth detailed analysis of the marketing policy of agricultural enterprises. Based on this fact, the relevance of such studies is quite high. This will substantiate the role and features of the formation of marketing policy of agricultural enterprises from the standpoint of its consideration as a tool for economic growth in a changing business environment.

A large number of agricultural enterprises use the concept of marketing policy in their activities. Its implementation is a long complex, capital-intensive process, and the adaptation of agricultural enterprises to doing business under the «laws of marketing» requires financial, personnel and mental changes within the company. At the same time, the formation and implementation of agricultural marketing policy is

implemented, first of all, in agricultural enterprises that provide production of agricultural products and food. As these markets have the highest level of competition, consumers are becoming more demanding of product and food quality.

The main theoretical approaches of foreign and domestic scientists and marketers-practitioners to define the concept of «marketing policy» are presented in table. 3, which allows to determine its essence, to compare the basic known definitions.

Table 3. Scientific and theoretical approaches to the definition of the concept  
Marketing policy»

Author, source 1	Definition 2
S. Briggs	Marketing policy is a set of measures to analyze, develop, implement and control the establishment, support of profitable exchanges with target markets and achieve the goals of the organization
By definition F. Kotler	Marketing policy is a set of variables of marketing that can be controlled, a set of which the company uses in an effort to provoke the desired response from the target market
M. Vachevsky	Marketing policy is a set of forms, methods and areas of influence on the production and economic and organizational activities of the enterprise in order to increase its competitiveness in the market
V. Yankevich, N. Bezrukava	Marketing policy is most often used in one of three definitions: - advertising, sales promotion and customer pressure, in other words, a set of particularly aggressive sales tools used to capture existing markets. In this most mercantile definition, marketing policy is primarily related to the mass consumer market, and to a much lesser extent - to the services market; - a set of market analysis tools (sales forecasting methods, simulation models, market research), which are available only to large enterprises, where they are used to develop a promising more scientific approach to the analysis of needs and demand; - the architect of the consumer society, the market system where producers commercially exploit consumers.
W. Goldstein	Marketing policy is a classic commercial process of obtaining a given sales volume by using a set of tactical tools related to goods, sales, price and communication.
A. Durovich	Marketing policy is a set of means of influencing consumers in the target market in order to provoke the desired response. The set of parameters of marketing activities of the organization, manipulating which, it best tries to meet the needs of target markets.
A. Pankrukhin	Marketing policy is a combined and coordinated use of different marketing tools. It aims to form and implement a flexible, dynamic, multi-level marketing strategy, adequate complexity and variability of the market.

Continuation to the table 3

Ukrainian mobile business knowledge bank	Marketing policy is a comprehensive program of activities that serves as a tool for optimal allocation of resources in the marketing planning system. At the same time, there is a constant coordination of supply and demand of goods through marketing research and control of compliance with marketing performance
I. Semchuk	Marketing policy is a system of measures, views, programs aimed at improving the efficiency of the enterprise, increasing its competitiveness, creating a positive image for regular customers and organizing product, pricing, sales and communication policy in accordance with dynamic changes in external and internal environment to meet the needs of consumers and obtain economic benefits

Source: summarized by the author according to [168, 185, 189, 198]

After analyzing the views of many domestic and foreign scientists and marketing practitioners, it was concluded that there is no unified and systematic definition of the term «marketing policy». All the above definitions present the essence of marketing policy, characterizing its objectives – to increase sales, meet consumer needs, the system of product promotion (services), obtaining the desired response of the target market.

At the same time, marketing policy is a complex, integrated, and complex system of measures designed to ensure the implementation of the company's marketing strategy and ensure the marketing orientation of the same company, to determine the key and unique role of marketing in overall activities. In addition, it is important to find deep and detailed aspects of marketing policy in the agricultural sector, because the marketing policy of an agricultural enterprise is a complex system aimed at dynamically increasing the level of competitiveness of agricultural enterprises, while meeting consumer needs.

Foreign scholars and marketing practitioners, and this is a peculiar feature, often identify in their works the concepts of «marketing policy» and «marketing mix». Thus, in particular, R. Kramer defines that any marketing activity consists of two basic components [199]:

- 1) the choice of segment (although in the Polish version the author indicates the expression «choice of goal») – this is usually a certain group of people whose needs the company (firm, organization) tries to meet;

2) establishing a system of marketing elements, which is described as a «marketing mix» or variable solutions, because depending on the state of the environment, the company (firm, organization) can influence them and change them quantitatively and qualitatively. In our last words, in our opinion, lies the identity in this form of the concepts of «marketing mix» and «marketing policy», because it is not just a set of elements - product, price, promotion and sales. This is a set of measures to adjust, change these elements and their impact on increasing the efficiency of the company.

O. Ferrell, M. Hartline, J. Lucas in their work «Marketing Strategy» note [200] that «marketing mix» is an executive plan and implementation in practice of marketing strategy of the enterprise and is a combination of goods, prices, promotion and sales to meet the needs of consumers in a particular segment. In a detailed analysis, this means the need for current, constantly updated data on the target market to obtain information about the consumer, product characteristics (services), attitudes towards competitors' products, price preferences, frequency and intensity of use (consumption) of products. It is with this information that the company (firm, organization) will be able to develop and implement a «marketing mix» that is more effective than competitors. The essence of the implementation of «marketing mix» is the essence of the implementation of marketing policy as the most effective way to organize product, pricing, sales and communication policies, and accordingly increase the competitiveness of the enterprise.

D. Ahlert and H. Schroeder define marketing policy as a concept of sales policy (or «marketing mix»), dividing the system of «marketing mix» into smaller systems: product mix, price mix, sales mix and communication-sales. Each of these systems contains its subsystems: product-mix (product, packaging, packaging, labeling, range, customer service); price-mix (direct pricing, wholesale and retail price); distribution-mix (sales, foreign trade, logistics, supply, distribution coordination); communication mix (advertising, direct sales, PR). That is, in the German economic literature, marketing policy is considered as a complex system of smaller components of

subsystems; in this case, the concept of sales policy is closest to marketing policy in the classical sense.

Based on these approaches, we have generalized the definition of marketing policy: marketing policy is a system of measures, views, programs aimed at improving the efficiency of the enterprise (firm, organization), increasing its competitiveness, creating a positive image for regular customers and organization of product, price, sales and communication policy in accordance with the dynamic changes in the external and internal environments to meet the needs of consumers and obtain economic effect.

On the other hand, F. Kotler noted [168] that marketing in general should guide the entire business strategy of any enterprise (firm, organization). The task of the marketer is to explore new opportunities for the company and, wisely applying segmentation, focusing and positioning (the so-called STP system), to form a clear business plan for the entrepreneur of his company in the market. The next step should be to specify the marketing policy and check whether the policy elements contradict each other and the STP strategy.

We determined that with a dynamic external environment, ever-increasing competition, constant growth of consumer demands for service quality, range of services and their price segmentation, it is necessary to structure the marketing policy of agricultural market participants according to an innovative approach. In addition to the classic elements of marketing policy – product, price, sales and communication, it is necessary to add as separate components – brand, personnel policy, external and internal environment, which affect the efficiency of agricultural enterprises.

It should be clarified that marketing policy can be both at the level of the business entity (enterprises, firms, organizations) and at the macro level (city, district, state, group of states) for the production of goods (services) – conducted by government, state and public institutions and organizations.

Leading scholars of agricultural economics determine that the marketing policy of agricultural enterprises can be manifested in several ways, namely:

- 1) aggressive marketing policy is pursued by agricultural enterprises that are

experiencing strong competition;

2) the minimum marketing policy is implemented by agricultural enterprises, which almost do not use a marketing approach in the course of their commercial activities;

3) a balanced marketing policy is implemented by international companies that approach marketing from a scientific point of view;

4) depressed marketing policy is part of a marketing strategy that responds to the activities of competitors;

5) innovative marketing policy is implemented by agricultural enterprises, which always remain market leaders due to the intensity of research and development policy.

It should be emphasized that the marketing component takes into account not only the objective trends of strategic development with a focus on achieving the key goal of the agricultural enterprise – profit, but also affects the justification of the concept of its positioning in the consumer market. In the process of economic activity, all stages of production, sales and management are accompanied by the use of modern marketing tools and the implementation of marketing product, communication and pricing policies. The marketing component is a key element of the overall management system of an agricultural enterprise, which contributes to the achievement of strategic goals, increases the level of competitiveness and affects the development of the agricultural sector as a whole.

The organizational content of the marketing component in the formation of the competitiveness of the agricultural enterprise is determined by the consistency of goals and objectives of all departments within the developed concept. It is possible to achieve this through an effective marketing policy, the key task of which is to study the market environment, namely: the state of supply, demand, competitors, internal and external environment of the enterprise. The tasks of marketing are the formation of long-term relationships with all market participants in order to ensure the consumer value of products; development of integrated marketing tools to assess the effectiveness of the marketing program; building marketing relationships with companies that sell raw materials for production; compliance with the requirements of socially responsible

marketing, etc. In such conditions, the use of marketing approach allows the definition of strategic orientations, building a development strategy and tactics of behavior of agricultural enterprises.

As rightly noted by Balabanova L., Kholod V. and Balabanova I., domestic agricultural enterprises can use three levels of marketing activities [201, p. 16]:

I level – the activities of the enterprise on the basis of the marketing concept, which involves changing the whole philosophy of enterprise management;

II level - the enterprise uses separate complexes of interrelation of methods and means of marketing activity (creation of marketing service);

III level - the company implements individual elements of marketing in isolation.

The marketing policy of an agricultural enterprise involves the development and implementation of commodity, pricing, sales, communication policies (Fig. 2).

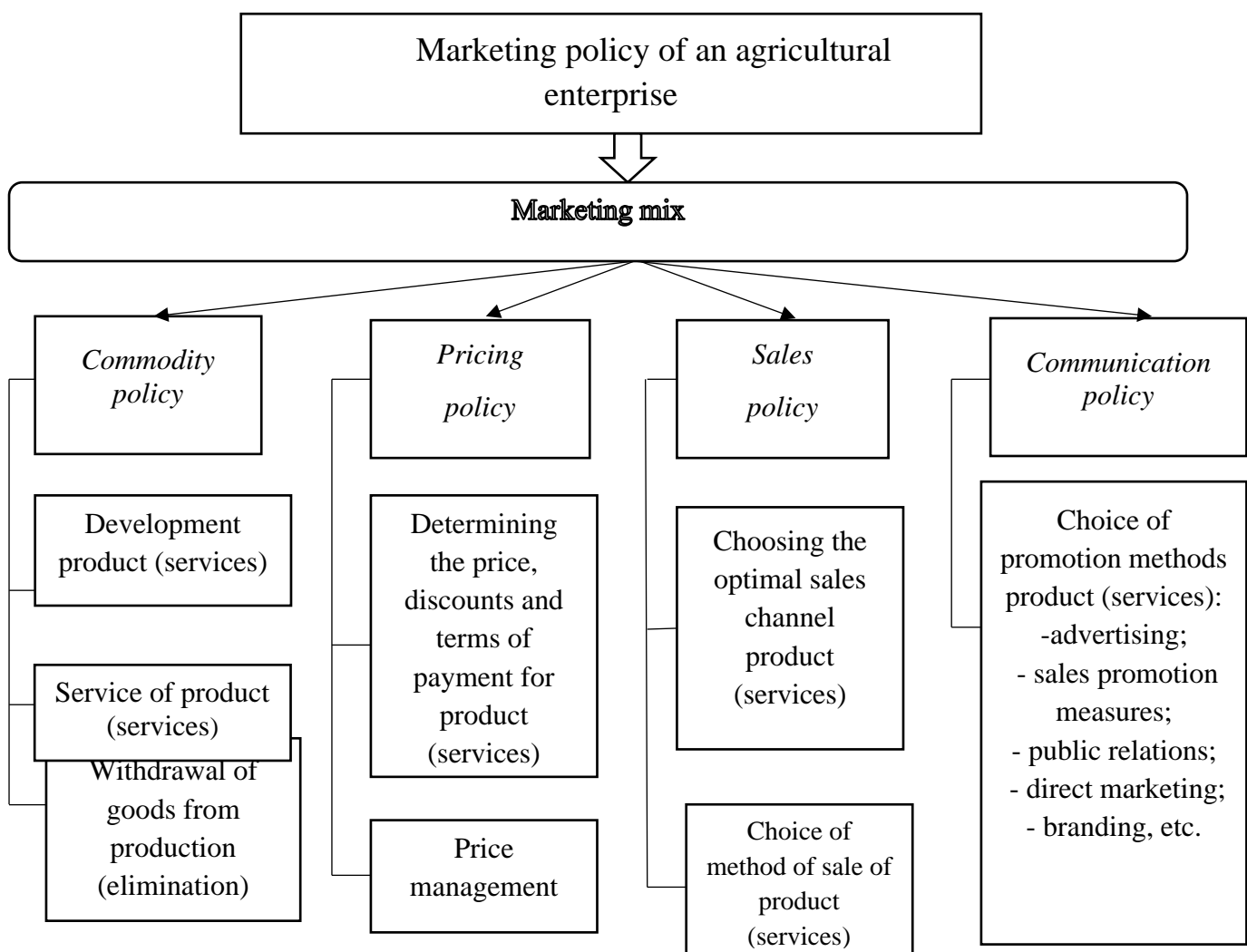


Fig. 2. The structure of the marketing policy of the agricultural enterprise  
Source: generalized by the author based on the study of literary sources

Consistent formation of marketing policy involves the implementation of analytical diagnostics of agricultural enterprises in the production of biofuels and strategic forecasting (forecasting) of its development; development of a marketing complex; ensuring effective organization and effective marketing management (marketing activities). In addition, the implementation of marketing activities of agricultural enterprises in the production of biofuels is impossible without an economically sound budget for marketing, control and evaluation of marketing activities, which is a platform for management decisions in modern market relations.

The main marketing prerequisites that should be guided by the formation of marketing policy of an agricultural enterprise for the production of biofuels are [202]:

1) implementation of marketing research in order to obtain complete and reliable information about exogenous and endogenous factors that affect the economic activity of the agricultural enterprise;

2) substantiation of the possibilities of adapting the specifics of biofuel production to the changing business environment and preferences of potential consumers with a simultaneous targeted impact on them at a certain (necessary) time;

3) production of biofuels taking into account consumer requirements, market conditions and real production capacity and resource base of the agricultural enterprise;

4) ensuring the effectiveness of activities by improving marketing activities on an innovative basis in the strategic perspective;

5) development of strategy and tactics of active presence of the agricultural enterprise in the market of biofuels and use of marketing tools to achieve maximum control over the movement of finished products;

6) formation of effective logistical channels for the sale of biofuels and services of agricultural enterprises in certain (local, regional, national or international) markets for biofuels of the envisaged volume and within a specified period.

Given the dynamic factors of the marketing business environment, it is important in modern conditions to form a new model of development of agricultural enterprises with their reorientation to marketing principles, taking into account the specifics of production and market requirements of biofuels. With the strengthening of international integration and globalization of economic processes, marketing policy is



a key tool for the effective functioning of agricultural enterprises in the strategic perspective. Ensuring the economic growth of businesses is possible through the diagnosis of relevant information and effective management decisions on demand research, product, pricing, communication and sales policy, as well as on marketing budgeting, strategic planning, marketing management and control.

The current stage of development of the domestic agrarian economy has contributed to the awareness of Ukrainian agricultural enterprises of the problem of the need for practical implementation of marketing principles in their activities. However, this requires not only trained specialists, but also some efforts to create management structures, whose tasks are defined not only by choosing the necessary strategic guidelines, but also by developing plans for their specification and implementation with the introduction of necessary marketing tools. The leaders of modern agricultural enterprises are faced with a dilemma, the meaning of which is to identify such terms as «marketing strategies», «marketing policy», «marketing activities» and so on. At the same time, even more misunderstanding is determined by the essence of marketing policy management, as most scientific provisions focus practitioners on the management component of marketing activities.

According to Karpenko N., still clearly not conceptually formed a clear sequence and content of the process of marketing policy, taking into account its managerial and strategic component [203]. Hence, modern realities require clarification of the management system of marketing activities within the formation of marketing policy of the enterprise.

Marketing policy is a type of activity in the field of market entrepreneurship that integrates the theoretical provisions of the marketing concept and the practical implementation of marketing strategy and tactics. The main idea of marketing policy of an agricultural enterprise is based on knowledge of the needs of specific consumer groups, so the main task of managing the marketing policy of the enterprise is to choose the market segment in which it can maintain a dominant position for a long time [204, p. 215].

The process of managing marketing policy is determined by a certain sequence and includes: determining the target market orientation; marketing planning of strategic

tasks; selection of the appropriate market segment; formation of a portfolio of marketing strategies; formation and implementation of the marketing complex and is carried out at each stage of reproduction of the market process in order to ensure the effective operation of the enterprise (Fig. 3).

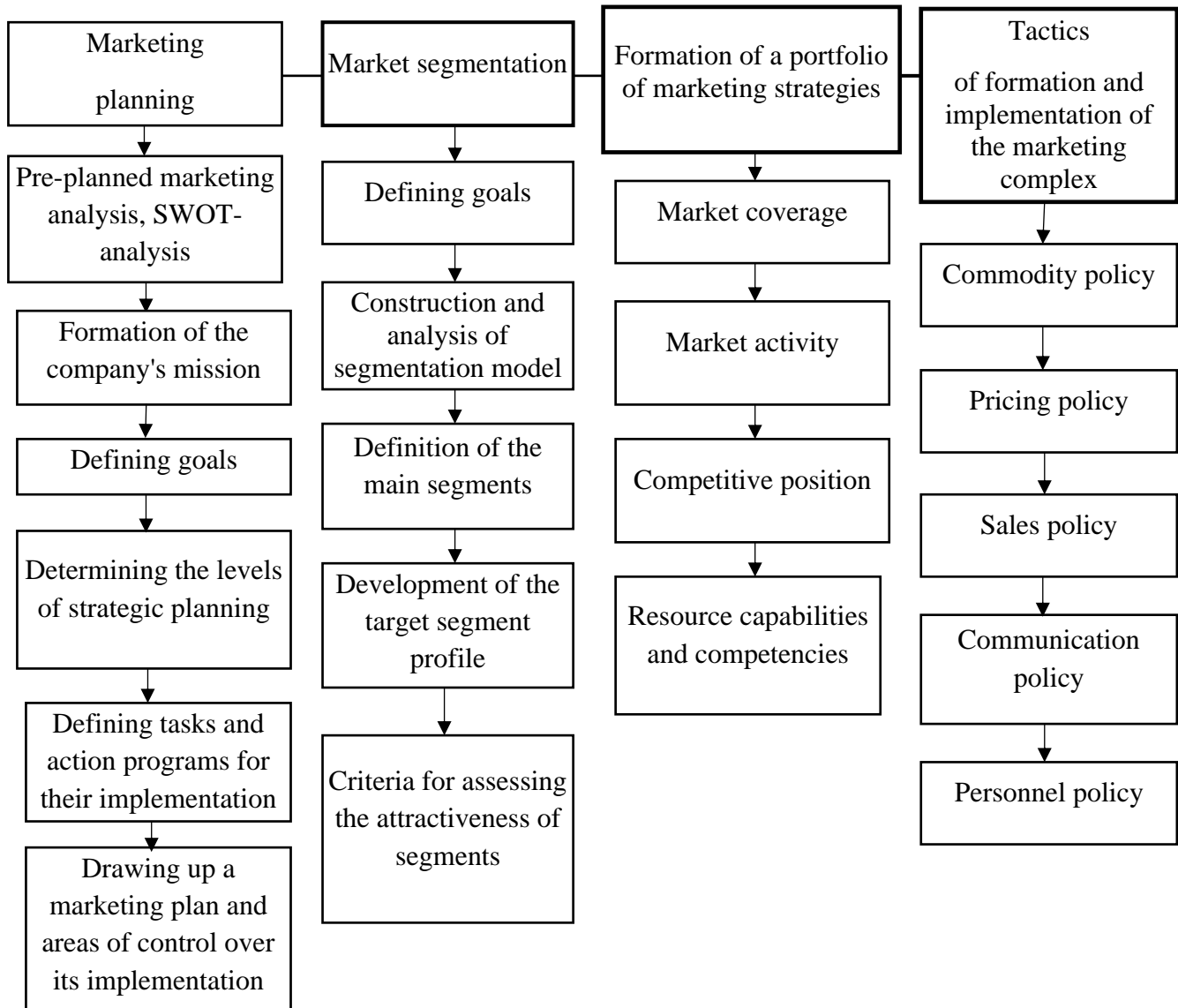


Fig. 3. Components of the marketing policy management process of an agricultural enterprise

Source: summarized by the author according to [205]

Let's consider each of these components in more detail. Thus, the main tasks of marketing planning are:

- 1) defining the goals, basic principles and criteria for evaluating the results of planning;

2) determining the object of planning, structure and type of plan according to the relevant classification criteria, the formation of the relationship between its main sections;

3) formation of the necessary information and methodological basis for planning (information on the market situation, methods of its collection, evaluation and analysis);

4) organization of the planning process (the availability of appropriate competence of managers, the sequence of the planning process, responsible departments).

The process of marketing planning should be based on principles (general and specific) that meet the requirements of marketing activities of enterprises. The following principles combine: completeness and complexity (all facts, events and situations are fully involved in decision-making); specificity (availability of data in numerical terms); clarity (taking into account any changes in the environment); continuity (sequence of actions over a long period of time); cost-effectiveness (compliance of planning costs with the company's profit); quality of performance of planned functions (optimization of work, forecasting of possible obstacles of activity of the enterprise, growth of risk protection, etc.); compliance of the developed plans with marketing opportunities and the budget of the enterprise, its production plans and other documents regulating financial, production and commercial activity; availability of employees with the appropriate level of knowledge, competence and responsibility for each of the sections of the plan.

The process of marketing planning should be carried out in the appropriate sequence, which according to the classical scheme consists of six stages, of which the first three are preparatory, two - basic, and the last – control [206, p. 48]:

- 1) pre-planning marketing analysis, SWOT-analysis;
- 2) formation of the mission of the enterprise;
- 3) construction of a hierarchical structure of the «goal tree»;
- 4) determining the levels of strategic planning;
- 5) definition of tasks and action programs for their implementation;

6) drawing up a marketing plan and areas of control over its implementation.

The main reason for market segmentation is the desire of the head of the enterprise to carry out its market activities with lower costs to find target customers. It is the marketing policy of the enterprise determines the characteristics inherent in consumers, which should focus on enterprises in their activities. Most often, when choosing a target market, companies focus on a limited market segment (consumer group), which puts forward to a particular product offer or service similar requirements that differ from the requirements and wishes of other market segments.

It is clear that the company, focusing on the segmentation process, should be guided by the goal of maximum penetration into selected segments instead of spraying efforts on the entire market and best meet the needs of consumers in selected segments. And the main goals of market segmentation the company determines itself, for example, such as finding in the market such a number of solvent buyers, the demand for which the company will be able to meet in the near future and in the near future; exclusion of those buyers whose demand can be better met by competitors; focusing only on those customers whose needs the company can better meet than competitors; increasing the effectiveness of the company's marketing policy through more effective use of marketing tools [207, p. 179].

After a thorough analysis of the target market segment, the process of forming a portfolio of marketing strategies is carried out. Attention is paid to the choice of appropriate strategies that meet the potential of the enterprise. To determine the most characteristic factors influencing the choice of marketing strategy by the enterprise, we turn to the views of some leading theorists on strategic management of marketing activities of the enterprise.

At the same time, we are of the opinion that the basic strategy envisages the choice of an agricultural enterprise in the appropriate direction of activity in relation to two participants in the market process – consumers and competitors. And when choosing a strategy, managers take into account the market situation, success factors, specialization of the enterprise [208, p. 275; 209, p. 187].

Thus, in a broader sense, the process of choosing a basic marketing strategy is

defined as a comprehensive concept of using the existing potential of an agricultural enterprise to achieve its goals, realize its strengths and gain a competitive advantage.

Preliminary components of the process of marketing policy management determine the list of measures for the formation and implementation of the marketing complex. Thus, each of these elements in the choice of measures for product, pricing, sales, communication and personnel policy must be interrelated with the goals, the current market situation, the potential of the enterprise and is a combination of the most appropriate strategic approaches needed for modeling of marketing policy of the enterprise [210, p. 186].

The sequence of the process of managing the marketing policy of an agricultural enterprise is an alternative approach, because in each of these stages of its implementation it is possible to form its own management structure, selected by the management of a particular enterprise. However, the general trend of this process meets modern market requirements and requires entrepreneurs not only knowledge of economics, finance, accounting, but also those that are insufficiently studied, such as management and marketing.

**Conclusions.** Marketing – as a methodological philosophy of business – has undergone a conceptual evolution from production orientation to consumer orientation with long-term relationships with him. At the same time, for a representative agricultural enterprise, the traditional elements of the marketing complex remain important, taking into account the peculiarities of products and production, namely: product design; production of goods with high added value; production of basic products; processing of residues and waste; setting the price within the product range; analysis and selection of markets, supply, storage; advertising, personal selling, public relations, sales promotion, direct marketing. At the same time, producers, public authorities, consumers, and intermediaries are involved in the marketing process. At the same time, in response to changes in the external environment, market dynamics, etc., the efficiency of a typical agricultural enterprise will be determined by the ability to form and implement a marketing model that should maximize margins, productivity and competitiveness.

Marketing efficiency is achieved by a business model of conceptualization of marketing policy at the level of a representative enterprise, whose task is to maximize profitability and sales, meet consumer needs, product promotion (services), obtain the desired response of the target market, ensure effective positioning in the consumer market. At the same time, the marketing policy of the organizational level is implemented according to a focused communication policy (focusing on partnerships with the beneficiaries of the enterprise) through the product, sales and a range of measures to promote products on the market.

## **9 Investment support for the development of the agricultural sector of the economy of Ukraine**

The importance of the agro-industrial sector of Ukraine's economy cannot be overestimated, as it is one of the defining types of economic activity that forms the basis of the national economy, its export potential and food security. In addition, it is an export-oriented sector that determines the country's position in the international arena. The agro-industrial sector is one of the most important elements of the economic systems of most countries with market economies. The high quality of domestic products and their environmental friendliness occupy a niche in European markets for agricultural products.

Ensuring economic development and growth of agricultural production in modern conditions is impossible without adequate financial support, in which investment has a leading place. Investments largely determine the pace of production, they are a powerful stimulus for the development of scientific and technological progress. Investments aimed at the development of agricultural production are especially important, because the development of all other sectors of the economy, accelerating reproduction processes and increasing its efficiency directly depend on this.

Scientific economists Malik M. Y., Lupenko Y. O., Shpykulyak O. G. draw attention to the extreme urgency of investment in the agricultural sector in order to intensify innovative development [269, p. 112]. Significant attention is paid to the search for sources of investment activity and the implementation of effective instruments for financial support of the agricultural sector Sabluk P. T. and Khomin I. P. [270, p. 47].

Ukraine's agriculture has significant competitive advantages in world markets, strong, but not fully exploited potential. This sector of the economy is one of the most attractive for investors, so it has all the prerequisites for further development. At the same time, in modern conditions, against the background of falling industrial production and due to export orientation, agriculture plays a role of a kind of catalyst

for economic growth. Therefore, it is important to create a favorable environment and conditions for the development of the national agricultural sector through the expansion of its investment potential, stimulating investment activities of agricultural producers and ensuring positive dynamics of capital investment [211, p. 27].

In the conditions of intensification of European integration processes and strengthening of globalization challenges and threats, substantiation of effective mechanisms and priority directions of development of investment activity in agrarian sphere form preconditions of building potential of competitiveness of national agrarian sector of economy and revival of rural territories [252, p. 4].

In the market conditions of management to ensure and maintain economic growth, the effectiveness of modernization, increasing the efficiency of the agricultural sector are determined by the ability to provide agricultural producers with appropriate investment resources. Hence, investment is the most important prerequisite for the effective functioning and development of agricultural enterprises, as it helps to increase their production, increase production capacity and increase agricultural productivity [212, p. 54].

The economic efficiency of any type of cost is the ratio of the received or expected effect to the amount invested. The efficiency of capital investment in production is ultimately expressed by increasing profits, productivity while increasing the volume of products or improving its consumer qualities. In general, investments in economically developed countries are aimed at solving these problems, which ensure the development of new markets or maintaining a place in the already developed market.

Under the investment of agro-industrial production is understood the process of making additional investments of the most efficient means of production, which increase production and create conditions for economic growth.

Investments determine the process of expanded reproduction of agricultural production, construction of new enterprises and creation of new jobs. In order to be attractive to potential investors, an agricultural enterprise must be characterized by internal and external opportunities to attract and use investment resources for its



development, as well as maximize the economic effect of investment entities with minimal investment risk, classification of investment activities of agricultural enterprises ( Figure 1) [214].

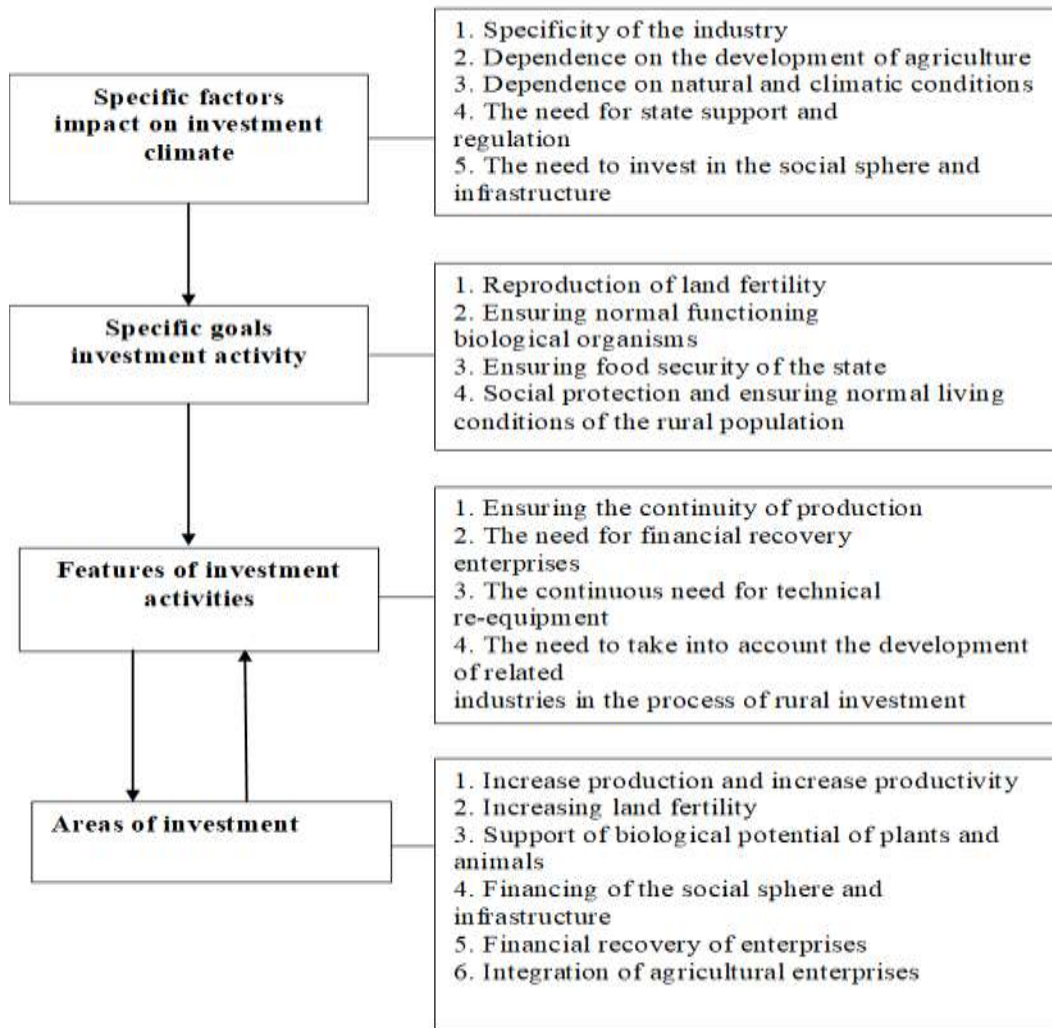


Figure 1. Classification of investment activities agricultural enterprises

Source: summarized by the author for [214]

The implementation of investments involves the interaction of investment entities, ie economic relations. Changes in the quantitative ratio of investment affect the volume of social production, employment, structural changes in the economy.

The essence of investment activities for agricultural enterprises is to organize financial and cash flows and manage them. In this case, investment activities can be reduced to the category of self-financing and expansion of production and technical base of enterprises, that is, each company covers its current and capital costs from its

own sources of investment. The current problem for agricultural enterprises is the choice and search for sources of financing. Therefore, stimulating investment activity is the most important condition for the development of agricultural enterprises.

Sources of financing investments in fixed assets are: own funds of enterprises and organizations, funds of state and local budgets, foreign investors, households, including individual housing and bank loans and other sources of financing. The sources of financing capital investments in the agro-industrial sector of the economy are illustrated in Figure 2.

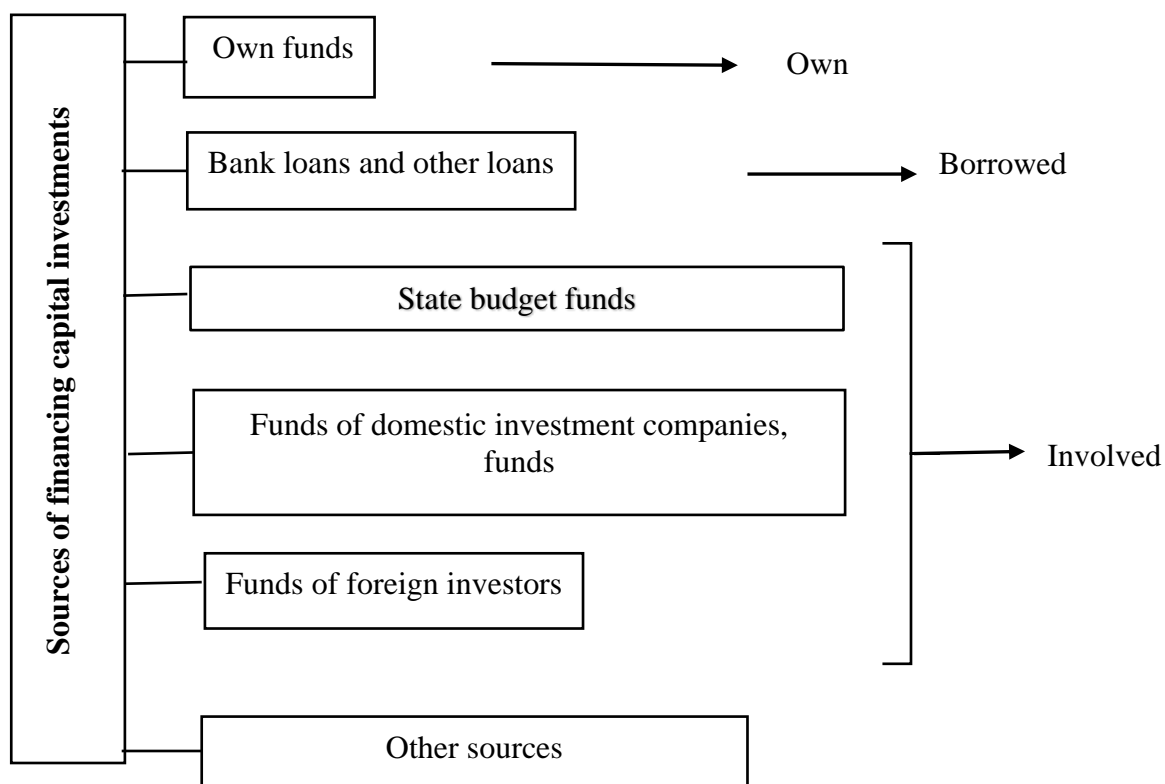


Figure 2. Sources of financing capital investments in the agro-industrial sector of the economy

Source: summarized by the author

So far, agriculture is the sector with the smallest number of foreign investors, because compared to a number of other industries it is quite complex and high-risk business with virtually impossible capital outflows. In any case, a favorable investment climate is needed, in which domestic resources of agro-industrial production will be mobilized and effectively invested in agro-industrial production [235 – 237].

It is important to identify and choose the most priority areas of investment. The main requirements in this case are the fastest return on investment and rapid increase in profits, which will ensure the development of all industries and industries of the agro-industrial complex. Priority areas include technical re-equipment of both agriculture and related industries by investing in the processing industry. Which will increase the share of processed agricultural products in total sales, which will change transportation costs, reduce losses during transportation and storage, expand the range, improve consumer properties. All this makes the field attractive to investors. In the relevant direction, the state investment policy

Table 1 presents the analysis and dynamics of capital investment in the economy of Ukraine and identifies the level of investment activity in agriculture.

Table 1. Dynamics of capital investments in the economy of Ukraine for the period 2010-2019

Indicator	2010	2015	2016	2017	2018	2019
Capital investments in the economy, UAH million	180575,4	273116,3	359216,2	448461,5	578726,5	584448,6
Investment growth rate in the economy,%	-	151,1	131,4	124,7	129,1	115,6
Capital Investments in agriculture, million UAH	10817,8	29309,8	49660,1	63400,7	65059,5	55254,1
The share of investment in agriculture,%	6,0	10,6	13,8	14,0	11,3	9,4
Investment growth rate in agriculture,%	-	270,8	169,5	127,6	102,7	85,0

Source: summarized by the author for [263]

From the analysis we can conclude that there is a positive trend of capital investment in the economy of Ukraine as a whole since 2010, as there is a fairly high increase in investment almost every year. But the share of capital investment in agriculture, unfortunately, tends to decrease annually, especially in 2019 compared to 2018, by more than 17%.

The decline in agricultural investment activity is due to unstable macroeconomic and political factors, the onset of the global economic crisis, limited purchasing power,

devaluation of the national currency, low efficiency of the agricultural sector. It should be noted that investing at the current level (on average about 10% of total capital investment) is quite low, as the agricultural sector has high development potential and significant potential investment attractiveness [272].

General state of the economy, tax and financial policy of the state, inflation, stimulation of imports (exemption from import duties on innovative goods, equipment, spare parts, components and raw materials associated with the production process), deferral of payment of duties on imported materials; export promotion (exemption from export duties); mitigation of taxation of export income; duty refunds are the main methods of stimulating investment activity in the agro-industrial complex. However, measures to reform land and property ownership have no investment incentives, the process of creating a stock market does not cover the agricultural sector, the depreciation system does not provide conditions for simple reproduction of fixed assets, not enough leverage to prioritize foreign investment in agriculture, no mechanism provision and support of working capital investments, financial and credit institutions are not interested in carrying out investment operations in agriculture, agricultural producers practically do not own and do not use modern methods of developing investment projects.

The crisis in the country, which began in 2014, has a multifaceted impact on the development of the investment process in the entire agro-industrial complex. Given the extremely high monopolization of the economy, the lack of comprehensive state support for economic entities operating in the processing industry, agro-industrial enterprises were very sensitive to sharp changes in the financial and economic situation in Ukraine. The current situation necessitates structural adjustment, which in turn requires considerable capital investment in key industries such as engineering for the processing industries, production of tools and materials, including the necessary equipment, biotechnology in agricultural production. The economic rise of these economic areas would lead to a significant positive chain reaction in the entire agro-industrial complex.

Insufficient domestic investment is a negative feature of the investment climate for external investors. It is well known that a foreign investor will be reluctant to invest in a country with a low level of domestic investment. In order to attract foreign investment in the agricultural sector, it is necessary to solve the problems of macroeconomic, political and legislative stabilization, to take measures to develop the infrastructure of the agricultural market.

Domestic farms do not have long-term bank lending, attracting foreign investment and inefficient depreciation policy in the agro-industrial complex.

The key problem that slows down the development of agriculture and the expansion of its investment activities is, first of all, the lack of investment-attractive climate in order to attract investment in agriculture. In today's reality, Ukraine has significant opportunities to increase agricultural production, but to achieve these goals requires modern technology, improved material and technical base, all this is possible with investment. Ukraine has a significant number of progressive and promising engineering developments of agricultural machinery, which in the absence of funding in practice are not performed. Ukraine also has a large number of examples of the implementation of innovative technologies, which are mostly better, even than in Europe.

Current practice shows that solving the problem of increasing the level of investment support of agribusiness and rural areas requires a comprehensive approach in terms of determining strategic investment targets, finding sources of attraction and development of the market of investment resources, increasing the share of value added in the food chain [267, p. 13].

The study of the issue of investment activity of agricultural enterprises of Ukraine allowed to identify key problematic aspects inherent in the current state of its development:

- dominance of equity in the structure of sources of financing of investments of agricultural enterprises, the amount of which is always limited, and the cost exceeds the cost of borrowed capital;
- high cost of credit resources, in particular, attracted on a long-term basis;

- the duration of capital turnover in most sectors of agriculture and the risk of investors losing the real value of money over time;
- high degree of riskiness of agrarian business in comparison with other types of economic activity;
- low level of use of mechanisms for hedging investment risks in the agricultural sector;
- low level of development of intermediary financial services that provide market interaction between investors and recipients of invested agricultural capital;
- lack of transparency and openness of information in agribusiness;
- underdeveloped market of investment resources of the country;
- instability of the external economic environment, which has an active influence on the formation of a favorable investment climate of the national economy as a whole.

It should be noted that agro-industrial enterprises, along with agricultural enterprises of other organizational and legal forms, are more attractive for investment due to the specifics of their economic activities. The closed cycle of the production process in such types of agricultural enterprises contributes to the fact that due to the diversification of production, the risk associated with the seasonal characteristics of the agricultural sector is much lower. At the same time, the agro-industrial enterprise reduces the difficulties associated with the sale of manufactured products, as such enterprises mostly have their own network of sales of manufactured products or established stable contractual relationships with trade structures. In addition, in the agro-industrial enterprise the transfer of products for processing is part of the technological process, which is carried out without the participation of intermediaries, directly, and allows to reduce production losses and increase revenues. In addition, the more common field of activity of agro-industrial enterprise, which combines the processes of production, processing and sale of products, contributes to the fact that in such an enterprise due to the availability of modern equipment, buildings, structures reduces the risk of borrowers liquidity. At the same time, such companies are able to act as guarantors and receive guarantees due to a more stable financial condition. Thus,

agro-industrial enterprises have more opportunities to obtain credit than agricultural enterprises of other forms.

Investing and lending to agricultural producers has its risks (Figure 3).

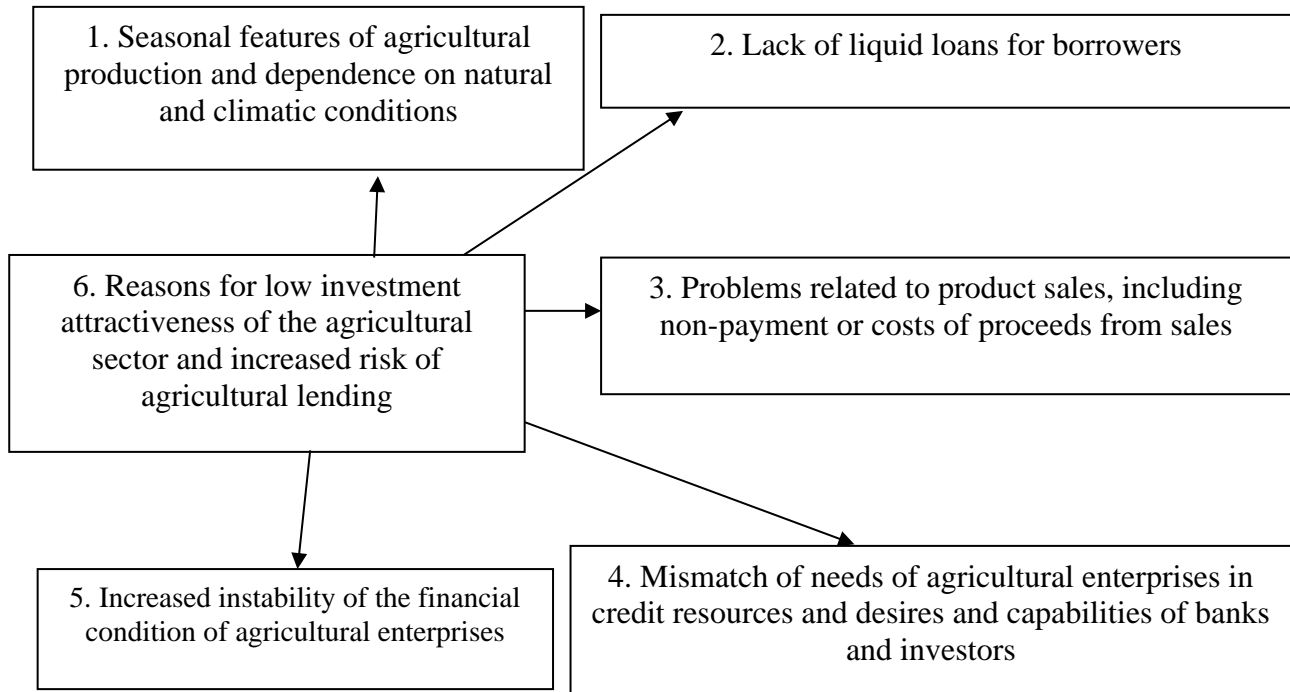


Figure 3. Reasons for unattractive investment and increased risk of lending to the agro-industrial sector

Source: summarized by the author

Statistics show that in developed countries 70% of working capital for the development of the agricultural sector is formed through bank lending, while in Ukraine this share is only 40%.

Problems of credit security of the agricultural sector necessitate the improvement of the credit mechanism.

Although in the analysis of production in Ukraine, the agro-industrial complex is one of the main budget-forming sectors of the economy (Table 2.).

Table 2. Gross value added by type of economic activity, UAH million

Indicator	2010	2015	2017	2018	2019	2020
Gross value added	992175	1689387	2516906	3017896	3421628	3594990
Agriculture, forestry and fisheries	82948	239806	303419	360998	356563	388428
Industry	250774	393142	629861	748054	790638	752771
from it the production of food, beverages and tobacco products	42295	74263	103752	110167	118525	...
Construction	36648	38928	64431	81259	107430	120274
Wholesale and retail trade; repair of motor vehicles and motorcycles	162171	273989	409256	471618	525974	584817
Transport, warehousing, postal and courier activities	87269	134978	190825	227140	264689	262128
Temporary accommodation and catering	10105	11946	18727	25112	35311	26907
Other economic activities	362260	596598	900387	1103715	1341023	1459665
As a percentage of the total						
Gross value added (basic prices)	100,0	100,0	100,0	100,0	100,0	100,0
Agriculture, forestry and fisheries	8,4	14,2	12,1	12,0	10,4	10,8
Industry	25,3	23,3	25,0	24,8	23,2	21,0
from it the production of food, beverages and tobacco products	4,3	4,4	4,1	3,7	3,5	...
Construction	3,7	2,3	2,6	2,7	3,1	3,3
Wholesale and retail trade	16,4	16,2	16,3	15,6	15,4	16,3
Transport, storage household	8,8	8,0	7,6	7,5	7,7	7,3
Temporary accommodation and catering	1,0	0,7	0,7	0,8	1,0	0,8
Other economic activities	36,4	35,3	35,7	36,6	39,2	40,5

Source: summarized by the author for [217]

Insufficient development of the agro-industrial complex of Ukraine is caused by insufficient use of high-tech equipment and depreciation of fixed assets and insufficient level of their renewal (Table 3).



Table 3. Fixed assets by type of economic activity

Indicator	2014	2015	2017	2018	2019
Total	13752117	7641357	7733905	9610000	9574186
Agriculture, forestry and fisheries	171392	210169	341622	407146	469383
including agriculture, hunting and related services	167283	205575	335303	399526	460475
Industry	1937821	3842517	2454483	3271669	3455860
from it the production of food, beverages and tobacco products	125745	136202	182445	207157	260718
Construction	64352	62090	78704	91715	117057
Wholesale and retail trade; repair of motor vehicles and motorcycles	125507	135378	195377	215625	304498
Transport	9752902	1418312	1280369	1729587	1187183
Temporary accommodation and catering	27276	27985	28786	30964	36209
Other economic activities	1672867	1944906	3354564	3863294	4003996
As a percentage of the total					
Total	100,0	100,0	100,0	100,0	100,0
Agriculture, forestry and fisheries	1,2	2,8	4,4	4,2	4,9
including agriculture, hunting and related services	1,2	2,7	4,3	4,1	4,8
Industry	14,1	50,3	31,7	34,0	36,1
from it the production of food, beverages and tobacco products	0,9	1,8	2,3	2,2	2,7
Construction	0,5	0,8	1,0	1,0	1,2
Wholesale and retail trade; repair of motor vehicles and motorcycles	0,9	1,8	2,5	2,2	3,2
Transport	70,9	18,6	16,6	18,0	12,4
Temporary accommodation and catering	0,2	0,4	0,4	0,3	0,4
Other economic activities	12,2	25,3	43,4	40,3	41,8

Source: summarized by the author for [217]

The development of the food industry of Ukraine is insufficient, as evidenced by the decline in production in recent years for all major products of this sector of the economy (Table 4).

Table 4. Production of certain types of food products, thousand tons

Indicator	2015	2017	2018	2019	2020
Beef and veal, fresh or chilled - carcasses, semi-carcasses, quarters unpeeled	50,0	58,5	56,3	55,8	41,5
Pork fresh or chilled - carcasses, half-carcasses	235,4	228,2	222,7	226,2	225,2
Beef and veal are frozen - carcasses, half-carcasses, quarters, cuts	20,7	18,4	20,2	16,6	11,7
Frozen pork - carcasses, half carcasses	12,4	6,6	6,7	11,8	14,0
Chicken, chicken, fresh or chilled - carcasses	325,9	319,8	266,9	249,0	226,7
Chicken, chicken, fresh or chilled - parts of carcasses	361,9	455,8	412,4	391,0	348,9
Chicken, chicken, frozen - carcasses	145,0	76,8	103,8	128,4	153,5
Sausage and similar products made from meat, animal offal or blood, and similar products and food preparations based thereon	228,8	247,1	247,8	236,6	236,4
Non-condensed milk and cream, not containing added sugar or other sweetening matter, of a fat content not exceeding 1%, in immediate packings of a net content exceeding 2 l	461,1	464,3	442,7	435,0	433,7
Milk and cream are not condensed and without added sugar	472,3	478,2	496,7	474,4	493,4
Butter with a fat content of not more than 85%	101,0	108,4	105,0	91,6	87,5
Grated cheese, powdered, blue and other unmelted cheese (excluding fresh cheese, whey cheese and cottage cheese)	96,6	94,3	97,0	86,1	85,2
Processed cheese (except grated or powdered)	27,0	27,1	28,6	29,5	30,6
Wheat flour or wheat-rye	2056,4	1991,0	1746,0	1737,6	1549,3
Bread and bakery products, short-term storage	1232,0	1072,6	975,1	892,7	794,7
Uncooked pasta (except products containing eggs)	86,8	88,2	79,3	73,8	72,9
Refined white sugar beet in solid form	1459,3	2042,7	1753,6	1490,0	1022,0

Source: summarized by the author for [217]

It should be noted that Ukraine, with one of the largest export potentials in the agricultural sector in the world in recent years, has significantly reduced exports of

certain products, namely products of animal origin (Table 5).

Table 5. Commodity structure of exports of agricultural and food products, thousand  
dollars USA

Code and name of goods according to UKTZED	2015	2017	2018	2019	2020
I. Live animals; products of animal origin	823434,9	1108757,0	1210638,3	1277015,8	1188164,7
01 live animals	25639,9	45708,8	45786,6	62547,7	51506,9
02 meat and edible offal	377668,3	531240,1	645982,3	711895,1	652106,9
03 fish and crustaceans	12994,8	26376,9	24981,4	33637,5	42204,0
04 milk and dairy products, poultry eggs; natural honey	386477,3	494207,3	480947,4	453877,2	426541,7
05 other products of animal origin	20654,6	11224,0	12940,6	15058,3	15805,2
II. Products of plant origin	7971492,5	9215707,9	9886060,4	12914543,1	11883238,0
06 live trees and other plants	2340,4	3956,6	4442,8	6479,7	5742,6
07 vegetables	97214,6	235369,3	235682,7	184515,0	168147,4
08 edible fruits and nuts	154083,5	195287,3	228564,1	260112,2	238390,2
09 coffee, tea	10595,7	13610,0	12059,2	11709,0	15011,2
10 grain crops	6057490,0	6501134,3	7240558,1	9633333,9	9410668,9
11 products of the flour and cereal industry	117887,9	181891,4	175811,2	202099,4	154490,8
12 seeds and fruits of oilseeds	1475455,6	2060121,4	1954149,8	2563242,3	1842430,9
13 shellac natural	527,0	587,5	1090,7	818,5	944,1
14 vegetable materials for manufacturing	55897,8	23750,2	33701,9	52233,1	47412,0
III. 15 Fats and oils of animal or vegetable origin	3299799,1	4605666,2	4496511,0	4732237,5	5746921,7
IV. Ready-made food	2468418,0	2826723,0	3018600,8	3220383,8	3361028,2
16 meat and fish products	12467,5	15551,3	21747,0	22842,6	22575,2
17 sugar and sugar confectionery	169508,2	417349,4	366878,1	254389,7	250271,4
18 cocoa and cocoa products	187263,1	183736,2	204076,5	204586,8	201366,2
19 finished grain products	267917,7	296408,3	268310,0	269366,0	313078,7
20 products of vegetable processing	183896,7	176497,5	172289,8	191858,1	172633,0
21 different foods	117179,4	121045,9	131984,3	142677,8	159571,2
22 alcoholic and non-alcoholic beverages and vinegar	183608,0	209235,6	229841,7	210822,0	223689,3
23 residues and wastes of the food industry	995781,3	1051170,0	1224764,2	1486234,6	1576498,0
24 tobacco and industrial tobacco substitutes	350796,0	355728,8	398709,1	437606,2	441345,2

Source: summarized by the author for [217]

The state must concentrate limited financial resources in industries that produce finished products, have significant export potential, ensure rapid capital turnover and

stable budget revenues. Distinguish between individual and institutional actors of the investment market.

According to Bosak A. O. the rise of agriculture in Ukraine largely depends on state support. This means that the state bears the costs of research in the field of agriculture, as well as training; at the expense of state funds protects the environment, a number of economic measures; provides financial assistance to agricultural enterprises and farmers, mainly in the form of loans, etc. On the other hand, in order to optimize agriculture in Ukraine, it is necessary to create jobs in previously unpromising areas, which will not only increase sales, but also increase employment on a national scale. It should be added that modern technologies of agricultural production require highly qualified workers and engineering and technical staff, which are not enough in the country. To train such specialists, it is necessary to reorient higher and technical educational institutions of the relevant profile and create a state program of qualification development [218].

The structure of exports presented in Table 6 allows us to state that in the majority of the structure of exports is dominated by raw materials (cereals), which does not allow to create additional value added in the possible amount.

According to Hansa I. V. weak links in the resource system of the agro-industrial complex are energy and fuel resources, which are essential for efficient production. Rising prices for gas, fuel and electricity significantly complicate the implementation of agro-industrial activities. In this situation, it is appropriate to talk about the transition to the use of alternative energy sources, which, in turn, will lead to a number of costs for re-equipment and re-equipment of production. On the one hand, such costs may affect the cost of products, which will reduce their competitiveness in the European market, but on the other - in the long run such steps will provide positive effects and improve the production process and exported products [219].

Creating high-performance processing plants requires additional investment in agricultural enterprises, and energy supply can be provided by producing energy from agro-industrial waste, which will make products more competitive, but requires a significant amount of investment.

Table 6. Commodity structure of exports of agricultural and food products, %

Code and name of goods according to UKTZED	2015	2017	2018	2019	2020
I. Live animals; products of animal origin	5,7	6,2	6,5	5,8	5,4
01 live animals	0,2	0,3	0,2	0,3	0,2
02 meat and edible offal	2,6	3,0	3,5	3,2	2,9
03 fish and crustaceans	0,1	0,1	0,1	0,2	0,2
04 milk and dairy products, poultry eggs; natural honey	2,7	2,8	2,6	2,0	1,9
05 other products of animal origin	0,1	0,1	0,1	0,1	0,1
II. Products of plant origin	54,7	52,0	53,1	58,3	53,6
06 live trees and other plants	0,0	0,0	0,0	0,0	0,0
07 vegetables	0,7	1,3	1,3	0,8	0,8
08 edible fruits and nuts	1,1	1,1	1,2	1,2	1,1
09 coffee, tea	0,1	0,1	0,1	0,1	0,1
10 grain crops	41,6	36,6	38,9	43,5	42,4
11 products of the flour and cereal industry	0,8	1,0	0,9	0,9	0,7
12 seeds and fruits of oilseeds	10,1	11,6	10,5	11,6	8,3
13 shellac natural	0,0	0,0	0,0	0,0	0,0
14 vegetable materials for manufacturing	0,4	0,1	0,2	0,2	0,2
III. 15 Fats and oils of animal or vegetable origin	22,7	25,9	24,2	21,4	25,9
IV. Ready-made food	16,9	15,9	16,2	14,5	15,2
16 meat and fish products	0,1	0,1	0,1	0,1	0,1
17 sugar and sugar confectionery	1,2	2,4	2,0	1,1	1,1
18 cocoa and cocoa products	1,3	1,0	1,1	0,9	0,9
19 finished grain products	1,8	1,7	1,4	1,2	1,4
20 products of vegetable processing	1,3	1,0	0,9	0,9	0,8
21 different foods	0,8	0,7	0,7	0,6	0,7
22 alcoholic and non-alcoholic beverages and vinegar	1,3	1,2	1,2	1,0	1,0
23 residues and wastes of the food industry	6,8	5,9	6,6	6,7	7,1
24 tobacco and industrial tobacco substitutes	2,4	2,0	2,1	2,0	2,0

Source: summarized by the author for [217]

With the transition of agro-industrial facilities of Ukraine to market relations between them, the information relationship was broken. Information on production volumes, sales, costs, revenues, prices, staff, wages, technology, organization of enterprise management is not available to many manufacturers and scientists and is considered a trade secret, knowledge of which can lead to loss of competitive

advantage, cause negative consequences in the development of enterprise economics. This raises the issue of managing an agricultural enterprise in the face of changes and uncertainties in its development, which is now becoming relevant and needs to be addressed. Of course, it is impossible to say that there is no information at all about the economic activity of agricultural enterprises. Statistical information provided by the State Statistics Committee of Ukraine is incomplete and does not reach each individual enterprise, does not disclose its economic activity.

In modern economic conditions, most agricultural enterprises face the problem of forming their internal investment strategy, the need to establish clear standards for the preparation and adoption of investment decisions. In such conditions, when investment resources are limited, the realization of investment potential is unlikely.

For the implementation of any project, and even more so a set of projects of the investment program, we need target structures that could maximize the tactical planning of the enterprise in the innovation and investment market. Their characteristic choice - the most acceptable forms - depends on the level of novelty and scale of the project. Sometimes it can be undertaken by existing organizations or zero structures that are part of them. But it would be appropriate to create a specialized structure for each project. It can be a small enterprise, joint stock company, joint venture, etc.

Investments are those economic resources that are aimed at increasing the real capital of society, ie the expansion or modernization of the production apparatus. This may involve the purchase of new machinery, buildings, vehicles, as well as the construction of roads, bridges and other engineering structures. This should include the cost of education, research and training. These costs are investments in "human capital", which at the present stage of economic development are becoming more and more important, because it is the result of human activity and houses and buildings.

When forming the internal investment strategy of the enterprise in the further choice of investment directions to the forefront are dynamic forecasts of cash and material flows. The reason is that in a standard situation, the forecast of future cash flows for a particular company is unknown to stock market participants, in which case

they must rely on historical data in the hope that the future will to some extent replicate the past.

In the case of investment decisions within the company, management, of course, available more detailed information, in particular, business plans with specific estimates of future cash flows, which allows you to more accurately set and solve the problem of optimizing investment activities, thus ensuring maximum growth of enterprise value . In the system of relations of expanded reproduction, investments perform the most important structural function.

Among the main reasons for the decline in investment activity in the agricultural sector, scientists say pessimistic expectations of reduced efficiency (payback) of investment flows, increased risk due to force majeure, high interest rates on medium and long-term loans, specific features of agricultural business and low efficiency of agricultural investment. management [260, p. 261]. The decrease in investment in recent years has had quite negative consequences for both production. Thus, in 2020 alone, investments in the agro-industrial complex decreased by UAH 14 billion. (Table 7).

Table 7. Capital investments by types of economic activity, UAH million

Indicator	2015	2017	2018	2019	2020
Capital Investments: Total	273116	448462	578726	623979	508217
Agriculture, forestry and fisheries	30155	64243	66104	59130	50680
including agriculture, hunting and related services	29310	63401	65059	58555	50189
Industry	87656	143300	199896	254196	180537
from it the production of food, beverages and tobacco products	13548	18927	30213	31889	28875
Construction	43464	52176	55994	62347	39615
Wholesale and retail trade; repair of motor vehicles and motorcycles	20663	33665	51818	44174	41685
Transport, warehousing, postal and courier activities	18704	37944	50078	43793	34885
Temporary accommodation and catering	1393	2134	2675	2832	1951
Other economic activities	71081	115000	152161	157507	158864

Source: summarized by the author for [217]

However, it should be noted that in the structure of total investment, investments in the agro-industrial complex decreased insignificantly (Table 8), which indicates that the agro-industrial complex remains the most investment-attractive sector of Ukraine's economy.

Although agriculture has recently become profitable, this sector of the economy must develop, even in the negative conditions in which it exists, because the agro-industrial complex has always been and still remains one of the main links in economic development. The functioning of the food market, the provision of the population with consumer goods, the employment of rural residents, the social revival of the village, and the ecological situation depend on the level of development of the agro-industrial complex.

Ukraine's agriculture attracts with its investment opportunities. In 2020, the share of the agricultural sector was about 9% of gross domestic product, providing jobs for 18% of the working population.

Table 8. Capital investments by types of economic activity, %

Indicator	2015	2017	2018	2019	2020
Agriculture, forestry and fisheries	11,0	14,3	11,4	9,5	10,0
including agriculture, hunting and related services	10,7	14,1	11,2	9,4	9,9
Industry	32,1	32,0	34,5	40,7	35,5
from it the production of food, beverages and tobacco products	5,0	4,2	5,2	5,1	5,7
Construction	15,9	11,6	9,7	10,0	7,8
Wholesale and retail trade; repair of motor vehicles and motorcycles	7,6	7,5	8,9	7,1	8,2
Transport, warehousing, postal and courier activities	6,8	8,5	8,7	7,0	6,9
Temporary accommodation and catering	0,5	0,5	0,5	0,4	0,4
Other economic activities	26,1	25,6	26,3	25,3	31,2

Source: summarized by the author for [217]

Sustainable agricultural development and food security are now strategic areas of the European Union's economic partnership with Africa and Asia. The limited agricultural potential of European countries today determines the need to shift the vectors of investment and increase agricultural production outside the European Union.



Under the current financial program to support cooperation in the agricultural sector, the European Union provides investment in agricultural development programs of these countries in the amount of more than 8.8 billion euros, which is 20% of the investment portfolio of the European Union in the following ratio: Africa - 60%, Asia - 13% [265]. Through such investment programs, the European Union ensures the social and food security of individual regions and their populations through a mechanism to stimulate agricultural production, sustainable in times of food crisis.

One of the main areas of investment in the agricultural sector of European countries is the accumulation of fixed capital, which does not include depreciation and purchase of agricultural land. Such investments represent most of the value added generated in agriculture and serve as a factor in increasing the competitiveness of the industry. In 2019, the total volume of investments in the agricultural sector of the European Union is estimated at 56 billion euros, which provided 30.9% of gross value added. The main recipients of investment flows were five European Union countries: France (19.7% of total investment), Germany (17.1%), Italy (15.0%), the Netherlands (9.1%) and Spain (8, 4%). At the same time, the dynamics of growth of investment in the agricultural sector of European countries is observed annually. Thus, the volume of investments in agriculture of the European Union member states was 2.3 billion euros more than in 2017 and 4.6 billion euros more than in 2016 [264].

One of the key priorities of the long-term perspective of investing in agriculture in the European Union is investment in the development of innovation potential of the industry, effective forms of which are the European Innovation Partnership, Agricultural Task Forces (EIP-AGRI), public-private partnership and support for private investment funds [267, p.14]

In the report of the Commission of the European Union, which includes the main indicators of agricultural development of the European Community for the period up to 2021-2027 under the Horizon program, established agri-research budget of the program "Innovation for the future of agriculture and rural territories" ("Innovating for the future of farming and rural communities") in the amount of 10 billion euros [273].

The European Committee decided to approve the long-term the budget of the European Union for the period 2021-2027, the total amount of which is almost 1.074 trillion euros. In structure of this budget about 31.9% will be directed to the formation and implementation of a single agricultural policy and financing of agriculture in European countries [273].

Remaining a priority strategic direction of investment in the European Union innovation activities and projects related to innovative transformations in rural areas economy. The Commission of the European Union, together with the Common Agricultural Policy, has identified five key issues in the context of which will form strategic directions of research and innovation within agriculture and natural environment:

- 1) food security and food security;
- 2) climate change;
- 3) environment and biodiversity;
- 4) maintaining a healthy lifestyle;
- 5) development of rural areas [275].

In modern business practice, a multifaceted approach to the analysis and evaluation of investment attractiveness of the enterprise. The general economic and financial condition of the studied enterprise in determining its investment attractiveness should be reflected in a number of indicators.

The general characteristic of the researched enterprise is carried out on its following components: the characteristic of production base; characteristics of the technical base of the enterprise; nomenclature of products; production capacity, the ability to increase production; the place of the enterprise in the industry, in the market; the level of monopoly of the enterprise; characteristics of the directorate; management schemes; number of staff, its structure, salaries; statutory fund; business owners; par value and market price of shares, distribution of shares; structure of production costs, including the main types of products, their profitability; the amount of profit and its use for the reporting period.

Today it can be argued that the mechanism of implementation and use of foreign aid has many significant shortcomings. The problem of classification of foreign investments needs to be addressed as a matter of priority; the relationship between key and priority program sectors; methods of estimating the effect or loss of foreign investment. The mechanism for obtaining and using foreign investments is still imperfect, which resembles a set of problems rather than a response to them, so it does not properly influence the stabilization of production and overcoming the crisis in the agro-industrial complex. Thus, the low growth rate of foreign investment and the insufficient level of its return to the agro-industrial complex in the context of growing resource shortages and reducing sources of its coverage further leave research on the problem of foreign investment efficiency.

The development of investment activity in Ukraine involves solving complex problems, namely: improving the system of attracting investment resources, their rational distribution and use. That is, the key to this complex task is to attract investment, the effectiveness of which depends on the level of investment attractiveness of investment objects.

The investment climate usually affects the country as a whole, as it is very much related to its legal field and special legislation, although it has an impact on the investment attractiveness of each region in particular.

The following facts potentially indicate the benefits of attracting foreign investment into Ukraine's economy:

- rich natural resources and opportunities for their exploitation;
- skilled and cheap labor;
- potentially capacious market.

The main factor reducing the quality of the investment climate in Ukraine is political instability and the corresponding uncertainty and imperfection of the legislative provision of investment in foreign investment, the creation of credit unions, concessions, land ownership, state investment insurance mechanisms, insurance funds.

The main methods of determining the investment attractiveness of the enterprise is generally an integrated assessment of investment attractiveness. The essence of this

technique is to conduct an analysis at such stages as assessing the financial condition of the investment object; determining the importance of group and individual indicators based on expert assessments; determining the fraction of the range of the variation set; determination of the ranked value for each indicator; calculation of the integrated indicator of investment attractiveness.

This technique has its drawbacks, in particular in that it does not take into account the intersectoral specifics of enterprises. Financial analysis of the assessment of investment attractiveness of the enterprise by this method is quite cumbersome, as it involves the calculation of more than forty indicators in the areas of economic activity of the enterprise.

There are also such methods as the internal rate of return, the method of the period of return on investment, the balance rate of return, profitability index, the method of net present value. In the West, the rating method is quite common. Almost all methods involve the calculation of the liquidity ratio, resource utilization ratio, debt ratio, profitability ratio.

One of the main indicators in the analysis of investment attractiveness is profit, which is the main source of financial resources and capital accumulation, strengthening the financial and market position of the entity, a protective mechanism against bankruptcy. This indicator plays an important role in the analysis of the enterprise, in particular the analysis of investment attractiveness. Investors try to work in the domestic market mainly in those industries where the least risk and guaranteed profits are concentrated.

Analysis of the movement of financial resources in the main, investment and financial activities is traditionally considered with the movement of cash. At the same time, the division of funds into own and borrowed is not divided. The analysis of the movement of financial resources does not include the division of assets into own and borrowed, derived from core, investment and financial activities.

The assessment of investment attractiveness takes into account the genetic aspect of the microeconomic system, ie the assessment of enterprise development potential, which includes: capital, rights to use natural resources, rights to engage in activities,

trademark rights, trademarks, service marks, human resources, enterprise management system, information system, information, and use such indicators as the share of the above objects in the total assets of the enterprise, the dynamics of capacity and its share, profitability of resources.

The level of investment attractiveness of an agricultural enterprise in Ukraine in the conditions of economic crisis is largely determined not so much by a specific enterprise as by the level of general favorable investment climate in the country and investment attractiveness of agriculture.

The main factor that reduces the quality of the investment climate in Ukraine is political instability and the corresponding uncertainty and imperfection of the legislative provision of investment. Important factors of attractiveness in each country for investors are political and economic stability, as well as the level of market environment and market infrastructure, stable legal framework, the degree of incentives for investors to create a certain tax climate, developed banking network, fully responsible entities and efficiency investment process, as well as the development of scientific marketing support of investment processes.

In general, the level of investment attractiveness of agriculture in a crisis situation depends on two main factors: the cheapness of labor and the ability to export products in this industry or simply export them abroad for sale in foreign markets.

Peculiarities of the economic crisis significantly affect the understanding of the nature and priority of factors of investment attractiveness of agricultural enterprises, the final level of which is formed in the general investment climate in the country and in individual regions. The level of investment attractiveness of agriculture in Ukraine is extremely low due to the inefficiency of this industry and the unsatisfactory investment environment, which in general determines the low level of investment attractiveness of agricultural enterprises. Relative advantage in attracting foreign investment in the agricultural sector of Ukraine's economy may have enterprises that, first, operate on the basis of private ownership of the means of production and the results of operations; secondly, for products for which there are opportunities to export or export abroad for sale in foreign markets.

However, without the effective development of the investment mechanism, economic development is impossible. There are many interpretations of the mechanism of investment process management, everyone understands it in their own way, so there is no single statement. The mechanism of investment process management is the currently existing forms and methods of state influence on investment activity (Figure 4).

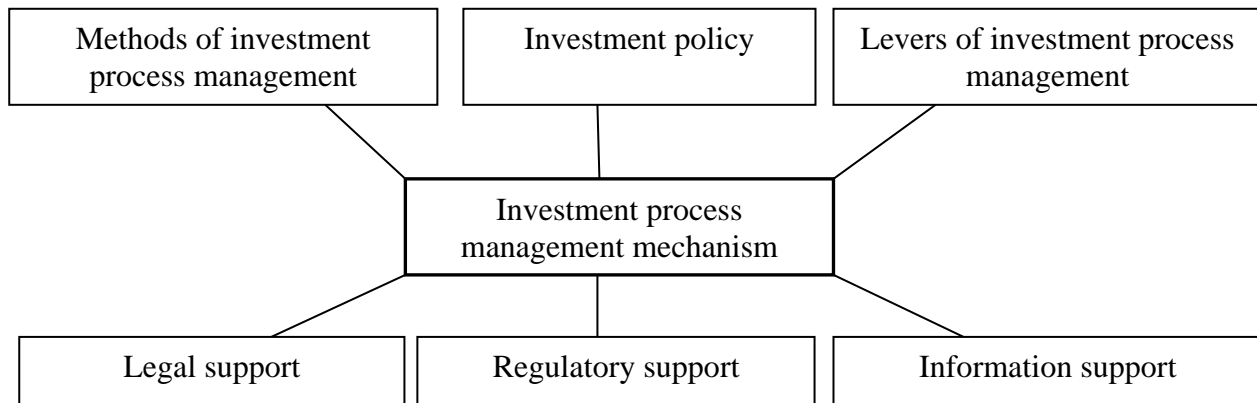


Figure 4. The structure of the investment process management mechanism

Source: summarized by the author

An important area of state regulation is to increase the profitability of agricultural producers, ensuring reproductive prices in the industry, maintaining intersectoral price parity in agriculture, the formation of the availability of loan resources, etc.

The mechanism of investment process management involves the implementation of management functions, such as: planning and organization of interaction, motivation, control. Many experts believe that this is an incomplete list of management functions and can be supplemented by others, such as forecasting, regulation. But we believe that these four functions are basic and they, in turn, contain others. Feedback plays an important role in the management mechanism, which improves management efficiency.

Let's briefly dwell on the description of the figure. Thus, the structure of the mechanism of investment process management has the following elements: legal, regulatory, information support, methods of investment process management, investment policy, levers of investment process management.

The mechanism of investment process management is a component of the financial mechanism, which, in turn, is an important element of the national economy. It is necessary to ensure the normal smooth operation of the economic system, the implementation of investment policy of the state. At the micro level, it ensures the implementation of investment processes in organizations and enterprises.

The purpose of investment activities is the implementation of investment processes to obtain the economic effect of investing. The mechanism involves managing the sequence and methods of implementation of investment processes.

At the present stage in the agro-industrial complex of Ukraine there is a lack of investment resources for the restoration and acquisition of fixed assets, introduction of new technologies, maintaining soil fertility, improving social and industrial infrastructure of the village, and ultimately ensuring food security. Attracting and rational use of investments aimed at stabilizing production and further development of Ukraine's agro-industrial complex plays an important role.

In particular, investments in fixed capital provide systematic renewal and development of material and technical means of agricultural holdings, improve the social infrastructure of the village. It is important to have a favorable investment policy that would ensure the structural transformation of agricultural sectors in favor of intensifying production and resource-saving technologies. The essence of the state investment policy is, first of all, to determine the priority areas, sources and volumes of investments in the agricultural sector of the economy. Here, the immediate goals should be to increase investment in those areas and areas of activity that accelerate the exit of agriculture from the crisis.

However, there is currently a high risk of investment in agricultural production is assessed as too high, primarily due to political and legal instability of the state. The legislation does not have an unbiased approach to foreign economic and investment activities, and there is no clear position of the state on supporting foreign investors. There are no large-scale programs to attract investment in major agricultural sectors. After all, the production, commercial and innovation capabilities of partners are limited. At the same time, when developing measures to attract foreign investment, on

the one hand, it is necessary to create favorable conditions for investment activities, further encourage foreign capital, make the most of existing benefits. On the other hand, it is necessary to ensure coordination of economic interests of potential investors and various interests of regions and the country as a whole.

Along with this, the volume of foreign direct investment in domestic agriculture over the past decades is characterized by positive growth dynamics and at the end of 2019 amounted to 4.5 billion dollars. The negative trend is characterized by the share of the industry in the structure of attracted investment flows within the national economy.

Capital investment in the development of agricultural sectors of the economy in 2021 is growing [215]. In January-September 2021, compared to the corresponding period of 2020, capital investment in agricultural production and food industry increased by 13.1%, and therefore the deepening of the investment crisis was suspended. At the same time, the growth of investments was achieved only in the agricultural sector of the economy, while in the food industry, on the contrary, there was a decline. Compared to the food industry, agriculture has not only maintained its priority for investment, but has also strengthened its position. If the ratio between capital investments in agriculture and food industry in January-September 2020 was 1.70: 1.0, in 2021 - 2.11: 1.00 UAH / UAH.

Such an unusual for the current phase of the Simon Kuznets cycle of the dynamics of the investment ratio is due to the predominance of negative factors in the food industry and rising prices for agricultural products, which account for almost 60% of national agri-food exports.

According to scientists of the Institute of Agrarian Economics, if the trends in the investment process persist until the end of 2021, the total amount of capital investment in agri-food sectors of the economy in January-December at current prices may reach over UAH 70 billion, including agricultural economic sector – up to UAH 50 billion.

Thus, in the agricultural sector of the economy there is a tendency to weaken the investment crisis, although in the food industry, it is still deepening.



In 2020, the amount of financial flows that the European Investment Bank sent to Ukraine amounted to about 1 billion euros. The total investment by the European Investment Bank is 7.5 billion euros. The main investment programs were: building the country's infrastructure, improving the energy efficiency of public social sector structures, the quality of public transport, the development of innovation [274]. As part of the implementation of the Strategy for Agricultural Development in Ukraine until 2020, the European Union has allocated 3 million euros to implement agricultural projects, among which the following were a priority: increase agricultural exports by 3 4% and increase export opportunities for food industry of Ukraine by 5.7% [268].

Considerable attention should be paid to the formation of a favorable investment climate, which is formed under the influence of a combination of political, social, economic and other factors that investors take into account when making investment decisions. There are objective and subjective factors that negatively affect the investment process of the industry, so when stimulating investment, you should take into account the impact of these factors:

- economic instability of the state;
- unregulated legislation, lack of guarantees of protection against its changes;
- inflation rates remain at a much higher level than in European countries;
- imperfect financial, including tax policy of the investment process.

Thus, there are ways to improve investment support for the development of Ukraine's agro-industrial complex. Namely: the state should create an effective system of investment policy in agricultural production that will not lead to the outflow of investment resources from the industry, create appropriate financial support, expand the use of financial and non-banking investments, develop the insurance market, create an appropriate system of investor protection, that is, to create a favorable investment climate, to increase investments in fixed assets, to restore it.

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Thus, the following conclusions and generalizations can be made: investments play a key role in socio-economic and agro-industrial development, and their volumes are determined by the state of the investment climate. The current state of the agrarian investment process is marked by a sharp reduction in all types of capital investment in both the production and social spheres of the agro-industrial complex. The level of their efficiency decreases. Volumes and foreign investment have not reached the required size, the annual inflow of foreign investment does not meet the needs of the economy.

And the structured complex work is directed on a policy of support of branches of a national economy, in the future will provide sustainable development of national economy.

For further effective development of the agro-industrial complex of Ukraine it is expedient to develop the Strategy of investment development of the agro-industrial complex, which should include the three most important stages of its implementation:

The first stage (2022-2024) is characterized by the achievement of signs of stabilization of agricultural production in general and the support of priority industries and industries. For the same period it is planned to launch innovative technologies in the bakery, alcohol, sugar, food and logistics industries.

The second stage (2024-2026) is projected as the growth of the service sector over production. It is also expected that during this period there will be a wider introduction of scientific and technological progress in agricultural production, increase investment (domestic and foreign), intensification of entrepreneurial activity, which will maximize the needs of the population of Ukraine in domestic food products.

At the third stage of the Innovation Strategy (2026-2028) there is an opportunity to achieve the development of the agricultural economy to the post-industrial phase by maximizing the use of available natural resources, dominance of food production and services for own consumption, expanding food exports and introducing new

information technologies. This stage formalizes the entry of the agricultural economy into the integration structures of the European Union and globalized transnational entities.

In the process of developing the Strategy, the main directions of transformation of agro-industrial relations should be:

- a) structural restructuring of the agro-industrial complex in accordance with the potential of its development;
- b) stimulating the development of competitive branches of agricultural production;
- c) building export potential;
- d) creation of a favorable investment climate for the establishment of industrial and economic relations;
- e) access to foreign markets;
- f) search for resources to finance the investment development of individual industries and industries.

In the system of measures for the development of the agricultural sector, the most important thing is to increase investment. Without investment savings and appropriate production and technical resources, positive changes are impossible.

Intensification of investment activity is not only the main condition for bringing agriculture out of the deep crisis, but also becomes the most important determining factor in its further development. Therefore, the creation of preconditions for a massive influx of investment in the agricultural sector should be the most important element of the strategy of state agricultural policy at the present stage. Thus, it is possible to achieve the intensification of investment activities in the agricultural sector, but provided that the above factors and the proposed ways will be implemented comprehensively, regularly and comprehensively.

## **10 Peculiarities of small enterprise development in Ukraine**

Under the current conditions of transformational transformations of Ukraine's economy, an important stage in the formation and development of the state is the stable and purposeful economic development of small and medium-sized businesses. Due to the rational use of available resources, small business is the main generator of innovative and innovative ideas, one of the levers of the formation and functioning of the regional economy, which stimulates the country's market mechanism to sustainable economic growth. Effective development of small business is the main indicator of stability and progressive economic development of the country, because it is the business sector that provides the country's economy with all necessary resources and contributes to the realization of existing potential. The level of economic development of an individual region and the country as a whole depends on the state of development of small business, as the level of consumption of the population reflects their purchasing power and, accordingly, the possible expected profits of entrepreneurs. Therefore, the relationship between the economic development of the country and the development of small business is of particular importance from the standpoint of their interdependence and objectivity. Given the significant role of small business in the economic development of individual territories and the state, there is a need to determine the peculiarities of its functioning in modern market, economic and political transformations.

In the conditions of active socio-economic transformations in Ukraine, when the economic independence of the regions is expanding, the role of small business for regional development is being redefined. This is due to the fact that small business covers the largest market share and a variety of economic activities, while having significant competitive advantages over large business. However, the lack of proper support for small business by interested participants in economic relations raises a number of problems for their effective functioning and development. Solving existing problems determines the need to develop a system of small business support, which will form the strategic foundations of such support and develop management

technologies to stimulate small business development to ensure the necessary stages of effective development.

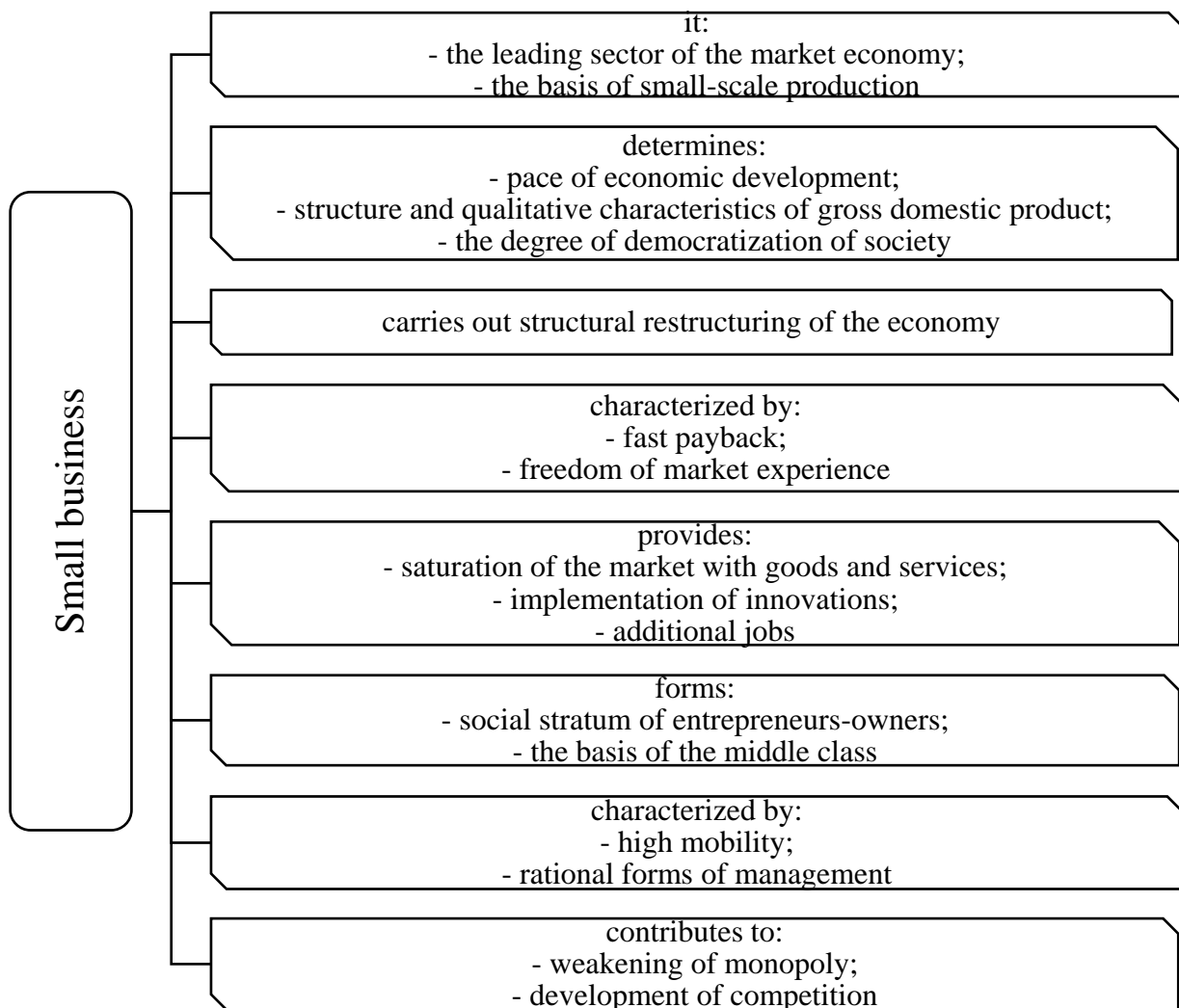
One of the promising areas of creating a competitive market environment is the development of small business. Today, it is clear that the success of market transformation will be largely determined by how the potential of small businesses, this dynamic and mobile sector of the economy, can be realized.

According to the size of enterprises and the scale of their activities, entrepreneurship is divided into small, medium and large. The size of enterprises depends on the production function of the enterprise, the technological type of production process and affects the ability to respond quickly to changes in market conditions, changes in demand and new needs of society and so on. However, regardless of the size and production functions of the enterprise, they are all engaged in entrepreneurial activities. According to the Law of Ukraine "On Development and State Support of Small and Medium Enterprises in Ukraine" small business entities are individuals registered in the manner prescribed by law as individuals - entrepreneurs, and legal entities - business entities of any organizational legal form and form of ownership, in which the average number of employees for the reporting period (calendar year) does not exceed 50 people and annual income from any activity does not exceed the amount equivalent to 10 million euros, determined at the average annual rate of the National Bank of Ukraine [276].

World experience and business practice show that the most important feature of a market economy is the existence and effective interaction of many large, medium and small enterprises, as well as their optimal ratio.

One of the most dynamic elements of the ever-changing structure of the national economy is small business.

Important features of a sustainable and efficient market economy in the country are the realization of existing entrepreneurial potential and the mobilization of independent initiative of the business entity. That is why it can be argued that small business is the driving force of socio-economic development, and its role in society (Fig. 1) is extremely important.



*Fig. 1. The role of small business*

*Source: systematized by the authors*

The role of small business and its place in the national economy is best reflected in its inherent functions:

- small business creates a competitive environment. Small business contributes to the formation of competitive relations, because by its nature it is antitrust, which is manifested in the multifaceted aspects of its operation.

- small business gives the market economy the necessary flexibility, due to the rapid response to changes in market conditions. Due to the rapid individualization and differentiation of consumer demand, the acceleration of scientific and technological progress, the growth of the range of industrial goods and services, this feature of small business is extremely relevant in modern conditions.

- small business contributes to the breakthrough of many important areas of scientific and technological progress, in particular, through the introduction of innovative technologies in production, implementation of the latest technical and commercial ideas and the release of knowledge-intensive products.

- small business makes a significant contribution to solving the problem of employment. This function is manifested in the ability of small businesses to create new jobs and absorb surplus labor during cyclical downturns and structural shifts in the economy.

- small business helps to reduce social tensions and democratize market relations, because it is the fundamental basis for the formation of the middle class. Thus, small business itself serves to weaken the tendency inherent in a market economy to social differentiation and expand the social base of reforms carried out at this stage.

Examining the development trends of small business in Ukraine, it is advisable, in our opinion, to identify three stages of its formation:

1. stage (1987-1991) - there is: the emergence of small business in Ukraine; organization of activity of centers of scientific and technical creativity, temporary creative collectives at public organizations; experimental development of small business; formation of business environment based on the formation of private property; cooperation is developing. At this stage, small businesses are aimed at meeting domestic consumer demand. Begins: formation of the legal framework in the field of small business; preparation for privatization. The basis for the transition to market relations, improving the economic efficiency of the economy has been formed.

Stage 2 (1991-1993) is the commercialization of small business. Development of the legal framework in the field of large-scale business development. During this period there is a large-scale privatization and development of all types of entrepreneurship. There is a large number of owners and intensive participation of small businesses in services, trade, catering, light industry, producing consumer goods and durable goods.

Stage 3 (1994 to present) Starting from this period, small business has received a vector of development through innovation. The role of the state is to adjust the legal

framework in the field of development and support in the long run of the competitive environment and its stability as an environment for interaction between small and medium-sized businesses. Since 1997, there has been a steady downward trend in the number of small businesses.

Small businesses, as a rule, appear when it is necessary to produce small batches of products with constantly updated range and range of products, the use of small sources of raw materials and materials in a limited number of consumers. Thus, small businesses implement their participation in business development and business environment in finishing products based on individual customer requests, production of components or products, the manufacture of which in technological terms is mostly manual, not automated [277].

Given the destabilization of the economy, limited financial resources, small businesses do not require large start-up investments, have a rapid turnover of resources, able with some support to most quickly and economically feasible to solve demonopolization, stimulate economic competition.

Thus, small business is an integral feature of any market economy, without which such an economy and society as a whole can not only develop but even exist. Large capital, of course, determines the level of scientific, technical and industrial potential, but the basis of development of countries with market economies is small business as the most massive, dynamic and flexible form of business life. It is in the small business sector that a considerable amount of national resources is created and operates, which is a breeding ground for medium and large businesses [278].

Ukrainian legislation provides broad rights for small businesses. Thus, their founders may be leased, collective, joint ventures, cooperatives, joint stock companies and other enterprises and organizations, as well as citizens, family members and other persons who jointly run the economy. In this regard, any small business created, while maintaining the priority of its founder, is, respectively, public, collective and private. The activity of each of them is regulated by the current legislation. Thus, small enterprises are not a specific type of enterprises, but a part of existing ones, allocated only on the basis of their size and endowed with additional rights and benefits [279].



Small business is a fairly simple and least expensive form of business. Most entrepreneurs start their business with a small business because of its benefits. At the same time, small businesses have certain disadvantages. We will systematize the main advantages and disadvantages of small business, and the results are shown in table 1.

*Table 1.*

**The main advantages and disadvantages of small business**

Benefits	Disadvantages
Rapid adaptation to local management conditions	Higher level of risk, so a high degree of instability in the market
Great independence of action of small businesses	Dependence on large companies
Flexibility in decision making and execution, small business owners are more prone to risks	Shortcomings in case management
Relatively low costs, including management costs	Low competence of managers
Great opportunity to implement their ideas, show their abilities	Hypersensitivity to changes in economic conditions
Low need for capital	Difficulties in raising additional funds and obtaining loans

*Source: systematized by the authors*

Consider some of the benefits of small business in more detail:

1) proximity to the client. Unlike large businesses, small businesses are almost always in close contact with the customer, almost on a daily basis. This allows companies to adapt and flexibility as quickly as possible, depending on the wishes of customers, and, as a result, they can ensure that their products will ultimately give the consumer an advantage;

2) the ability to constantly change and adapt. Small businesses in the process of carrying out their activities have to constantly fight for survival, because there is a high probability of displacement by large and medium-sized enterprises. in addition, they are highly dependent on their customers and suppliers, so they are constantly forced to look for various new ways to reduce costs;

3) low overhead costs. It is a fact that in the traditional organization in the process of expanding the range of management tasks that need to be solved in the shortest possible time, are constantly growing. at the same time, there is an increase in specific overhead costs for the ever-growing staff of the administration. Small companies that are deprived of internal bureaucracy can keep these costs relatively low;

4) the use of "small niches". In the process of saturating markets, there is a growing need to find new niches. Compared to large enterprises, which are mostly looking to increase the scale of activity, small enterprises, on the contrary, see the need to find micro-niches. Working at the first stage with a minimum profit, they often as a result of the expansion of the niche, which over time may become a new large source of income;

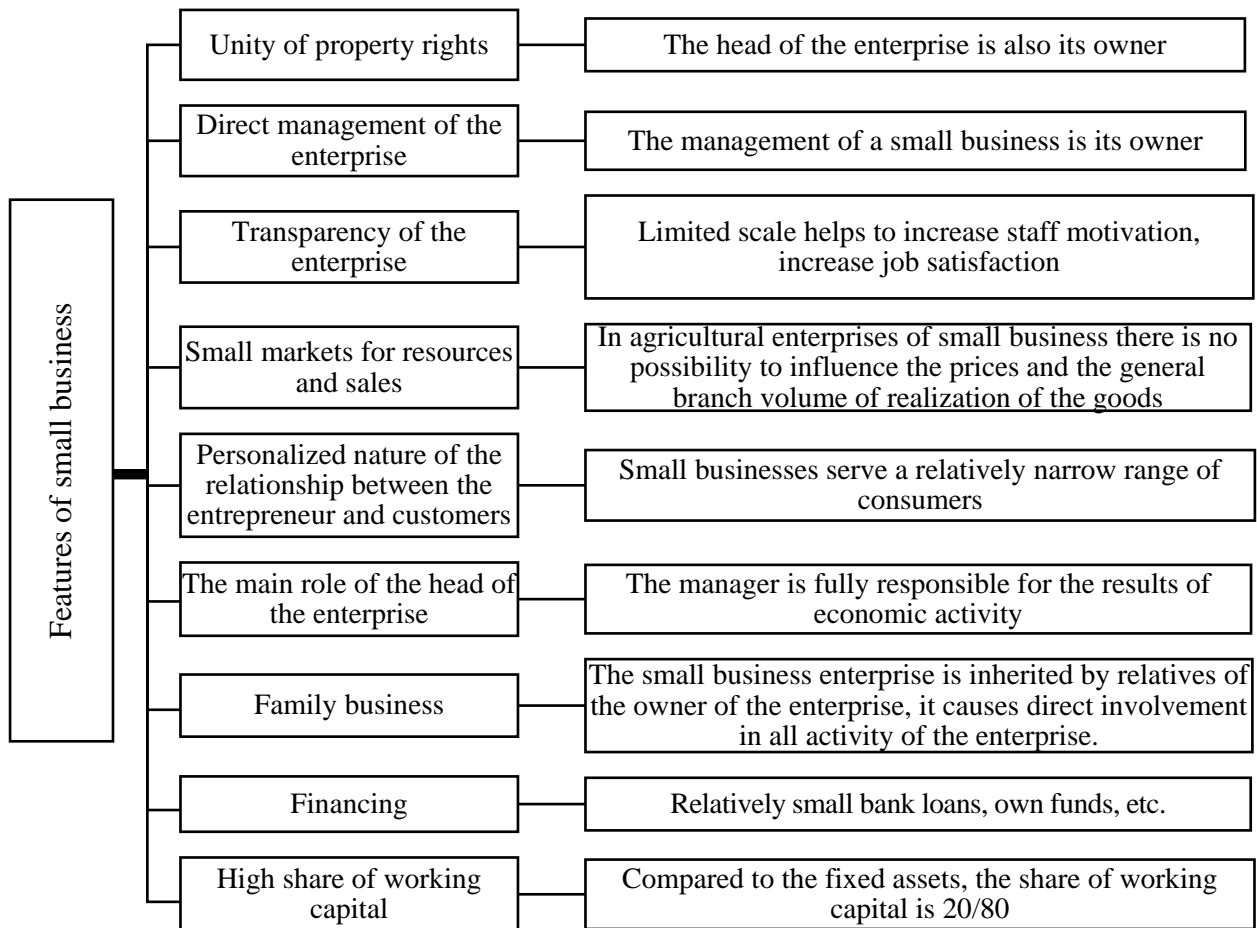
5) innovation potential. As mentioned above, small businesses need to constantly adapt to changes in the business environment, production technologies, and customer needs. moreover, small organizations are often run by entrepreneurs who are innovators in their field, who are quite willing to take risks if it will provide them with increased profits and efficiency of the organization;

6) mobility and the ability to join forces. In order for small businesses to be able to resist their large and medium-sized competitors, it is advisable for them to form various types of associations, both short-term and long-term [280].

Small businesses also have vulnerabilities. The main one is the small amount of individual capital. For the vast majority of small businesses, the main source of start-up capital or replenishment of funds already invested in business is self-financing, and only in the case of a fairly successful business operations is the opportunity to use a bank loan. But commercial banks are always reluctant to work with small businesses, because for them small loans are less profitable [281].

Traditional schemes of division of the economy into structural elements allows to provide a high-quality comprehensive study of patterns and directions of development of sectors of the economy. In addition, this technique allows you to timely record the birth of problems and develop measures to address them.

Entrepreneurship in the agricultural sector on the scale of a small enterprise is characterized by a number of features (Figure 2).



**Fig. 2. The main characteristics of small business**

*Source: generated by the authors*

As a rule, the development of small business is a condition for solving the following problems:

- formation of competitive market relations that contribute to better meeting the needs of the population and society;
- improving the quality of goods, works, services (striving for satisfaction consumer demand, small business helps to improve the quality of goods, works, services and service culture);
- bringing production of goods and services closer to specific consumers;
- promoting economic restructuring (small business gives the economy flexibility, mobility);
- attracting personal funds of the population for the development of production (partners in small enterprises invest their capital in the business with greater interest than in large ones);

- creation of additional jobs, reduction of unemployment;
- promoting the discovery of people's talent, the development of various types of crafts;
- formation of the social stratum of owners, entrepreneurs;
- intensification of scientific and technological progress;
- development and use of local sources of raw materials and waste from large industries;
- liberation of the state from unprofitable enterprises through their lease and redemption.

Small businesses play a significant role in employment, production of certain goods, research and development [282].

We can identify the main areas of implementation of the socio-economic role of small business in the development of both the region and the country as a whole:

- creation and development of a competitive environment;
- increase of innovation and scientific and technical activity in the region;
- increasing the social protection of the population, as well as improving the quality of life by creating new jobs;
- providing the market with new, high-quality goods and services, which helps to meet consumer demand;
- creation of new markets or market segments;
- use of local (local) natural resources in the process of production and sale of products (works, services);
- increase in tax revenues to regional and local budgets;
- formation and development of credit and financial infrastructure and consumer cooperation;
- redistribution of financial resources;
- socio-economic development of individual territorial communities and the country as a whole;
- promoting the development of big business.

In today's market development, the problems of small businesses are becoming

increasingly complex for a number of reasons. High levels of fierce competition, surplus of similar goods and services, oversaturation of advertising and information flows, higher consumer demands for product quality, constant changes in market conditions and capacity, and innovation in the world require entrepreneurs to meet such rapid development conditions and maintain their market position. In order for enterprises to survive and function successfully, as well as to improve the quality and competitiveness of their products, it is necessary to anticipate the difficulties they may face in the future and the new opportunities that may open up for them.

The existing problems of small business development indicate the need not only to analyze the indicators of small business development, but also the use of modern methods in the analysis, which investigate in more detail the causes of negative changes in small business development in Ukraine. Small businesses need to identify priority areas for their development, adaptation to changes in the external environment, the use of new technologies for the organization of management processes. The search for effective ways to stimulate and support small business is possible after a qualitative analysis using modern research methods.

In market economies, small enterprises make up the vast majority of enterprises. They are present in almost all sectors of the economy, but their role is especially important in those areas where there is no big business. In Ukraine, there are small businesses in all sectors of the economy, while in some sectors the activities are carried out only by small businesses, and large enterprises do not exist. This includes education, health care and other services.

Thus, small business in Ukraine, as in other countries, is a priority for the development of regions of the country and the formation of its system of economic development. Consider the share of small, medium and large businesses in Ukraine to determine their contribution to the development of the national economy (Table 2) [283].

The share of the number of small enterprises among the total number of enterprises increased by 0.9% over ten years due to a decrease in the share of medium and large enterprises.

*Table 2.*

**Dynamics of the share of large, medium, small and micro businesses in Ukraine, 2011-2020**

Years	Large enterprises		Medium enterprises		Small businesses				Total
	units	%	units	%	units	%	of which micro-enterprises		
							units	%	units
2011	659	0,2	20753	5,5	354283	94,3	295815	78,7	375695
2012	698	0,2	20189	5,5	344048	94,3	286461	78,5	364935
2013	659	0,2	18859	4,8	373809	95,0	318477	81,0	393327
2014	497	0,1	15906	4,7	324598	95,2	278922	81,8	341001
2015	423	0,1	15203	4,4	327814	95,5	284241	82,8	343440
2016	383	0,1	14832	4,8	291154	95,0	247695	80,8	306369
2017	399	0,1	14937	4,4	322920	95,5	278102	82,2	338256
2018	446	0,1	16057	4,5	339374	95,4	292772	82,3	355877
2019	518	0,1	17751	4,7	362328	95,2	313380	82,3	380597
2020	512	0,1	17602	4,7	355708	95,2	307871	82,4	373822
Increase, %, 2020/2010	-22,3		-15,2		-0,4		4,1		-0,5

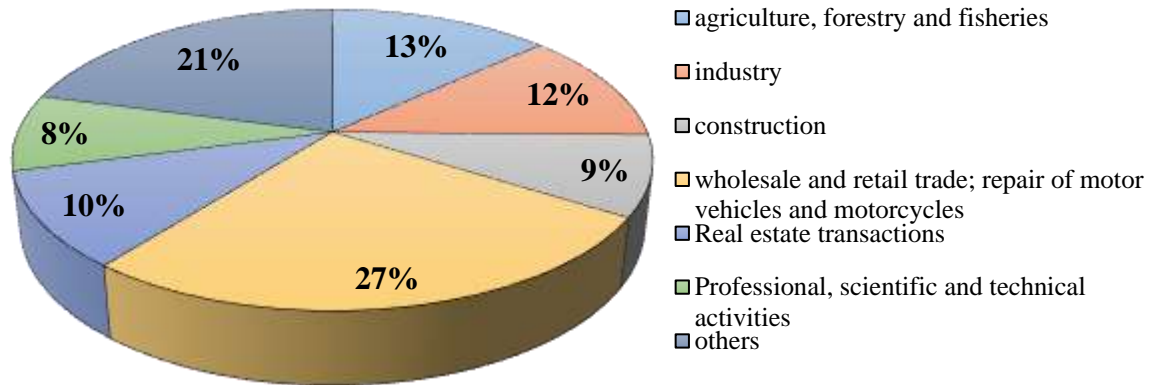
*Source: calculated by the authors according to [283].*

The structure of all enterprises has been changing in the direction of declining enterprises for ten years, in particular, if we consider the dynamics of the number of small enterprises, it decreased by 1873 units in 2011-2020. This situation indicates a decrease in entrepreneurial activity of enterprises due to certain difficulties of economic, social, financial and political nature. It should be noted that the quantitative structure of business in Ukraine during the study period has not changed significantly, but there have been two waves of changes:

- negative (2011-2015), which is characterized by a sharp decline in the number of all enterprises by 32,255 units, in particular, during this period the growth rate of large enterprises decreased by 35.8% (236 units), medium - by 26.7% (5550 units), and small - by 7.5% (26,469 units);

- positive (2016-2020), which is characterized by an improvement in the dynamics of the number of enterprises of all types by 67,453 units, in particular during this period the growth rate of large enterprises increased by 33.7% (129 units), medium - by 18.7% 2770 units), and small - by 22.2% (64554 units).

In general, the number of small enterprises in 2020 reached 95.2% of the total number, in terms of their structure, the largest share belongs to the enterprises of wholesale and retail trade and repair (21%), as well as enterprises of agriculture, forestry and fisheries (13 %) (Fig. 3).



**Fig. 3. The structure of small business in Ukraine in 2020**

*Source: calculated by the authors according to [283].*

This trend can be explained by the fact that the development of small businesses in the agricultural sector is one of the priorities of public policy. This sector of the economy ensures the sustainable development of the socio-economic system of the state, helps to increase employment by creating a significant number of jobs, which contributes to improving the social security of the rural population. In addition, the development of small business in the agricultural sector contributes to the formation of a competitive environment, providing consumers with new goods and services, the development of big business.

Small business in the agricultural sector is in a difficult economic situation. Inflation and rising prices for all factors of production put many small businesses on the verge of bankruptcy.

The enterprises of the agro-industrial complex are dependent on the enterprises of other industries that produce raw materials, the cost of which is constantly growing. Tax legislation also puts pressure on manufacturing enterprises in the field of small business. The current economic conditions undermine the incentives for entrepreneurial activity in the field of agro-industrial complex.

Factors limiting the growth of production in small businesses of the agro-industrial complex:

- lack, moral and physical deterioration of equipment;
- insufficient demand in the domestic market due to low purchasing power of the population;
- general economic and political instability;
- Insufficient demand in the foreign market, high competition from foreign companies on the price criterion.

Many small businesses in the agricultural sector cease operations at the outset. Perhaps the main reason is the ease of setting up a business. However, with regard to the agricultural sector, the development of a small business is impossible without state support, as the activities of such an enterprise bring not only economic but also social benefits, and the results are possible in a long time, as activities in agriculture is characterized by seasonality of production.

The study identified three factors that affect development of small business in the agricultural sector and increasing its share in the region's economy:

- conditions of demand for agricultural products in the region;
- specifics of the sectoral structure of the region's economy;
- regional business climate (set of conditions for the development of small enterprises of the agro-industrial complex in the region).

The first two factors are basic, ie they exist as a given and are virtually unaffected.

Analyzing the factors that hinder the development of small business in the agricultural sector, the most serious are the following:

- low qualification of staff for small businesses in agriculture;
- low availability of financial resources;
- unfair competition from imported products of the agro-industrial complex (price competition);
- low availability of quality material and technical base;
- requirements of regulatory bodies.

The main factors of the business climate we have identified:

- land is a priority means of production in this area and it is low available for production;



- low availability of production facilities;
- low availability of energy facilities;
- insufficiently developed transport infrastructure that does not meet the needs of small businesses in the agricultural sector;
- problem with hiring skilled workers;
- a serious barrier to the development of small business in agriculture the sector has tax administration procedures;
- low availability of quality equipment, components, raw materials.

Financing of small and medium business in the agro-industrial complex is possible through:

- start-up capital when creating a small or medium business in the agro-industrial complex at the expense of the founders;
- funds of private investors;
- bank loans;
- government support as a source of funding for small businesses.

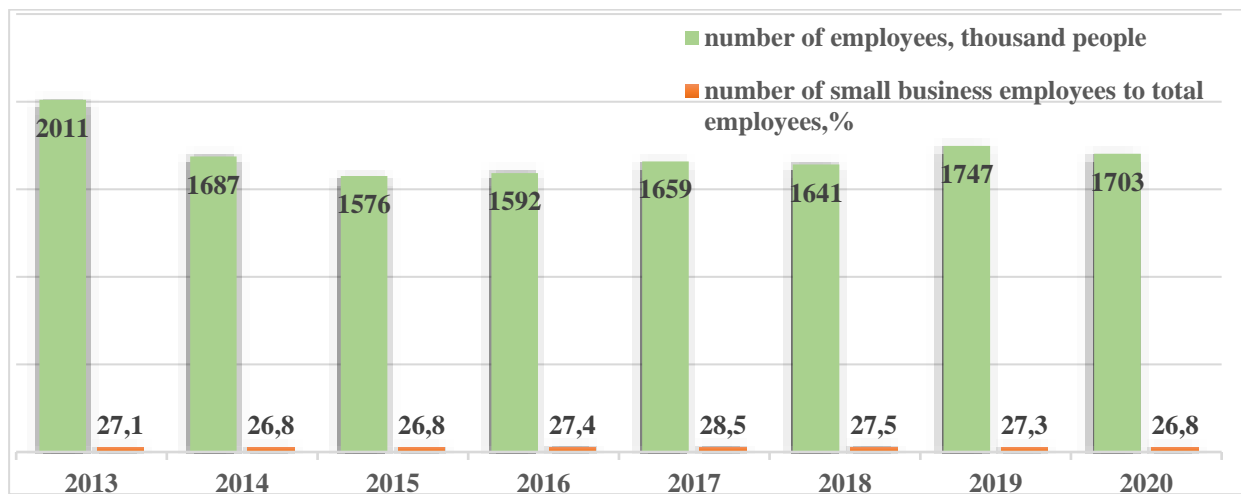
Effective development of small businesses in agriculture has:

- to solve the problem of food security of the state;
- create conditions for the development of rural areas;
- to solve the problem of rational land use and agricultural development;
- to help increase the efficiency of socio-economic implementation functions by all categories of farms;
- quality use of local natural and economic conditions, traditions and the interests of the rural population;
- to promote the level of employment, profitability and quality of life of the rural population;
- when planning the vector of small business development in the agricultural sector it is necessary to take into account the current conditions of operation of enterprises in this sector [284].

Given the positive growth trends in the number of small businesses over the past five years, we can say that the small business sector in Ukraine has formed quantitatively and corresponds to the European average. However, the number of small

businesses in the country does not determine the effectiveness of this sector, it is important the number of employees in these enterprises and the volume of their products, because the number of small businesses may be minimal, and the number of employees and output is quite large. , and vice versa.

Therefore, the quantification of small businesses is important for further comparison with other indicators of small business evaluation. Consider the dynamics of employees in various small enterprises of Ukraine for the period 2013 - 2020 (Fig. 4) [283].



**Fig. 4. The number of employees in small businesses in Ukraine in 2013-2020.**  
 Source: calculated by the authors according to [283].

After analyzing Fig. 4. It can be summed up that almost a third of all employees in enterprises are employed in small businesses.

The number of employees in small businesses decreased sharply until 2015, and since 2016 began to grow relatively, but in 2020 there is another decline of 2.5%, which is equivalent to 44 thousand employees compared to 2019. This decrease in the number of employees can be explained, on the one hand, by the complexity of the tax burden, lack of state participation in small business development and possible inflation, and on the other hand - increased automation, mechanization and robotization of modern production. It should be noted that due to the lack of preferential conditions for increasing the number of employees, entrepreneurs are forced to hide them because they do not have some incentive from the state to increase their number. This situation creates the development of the shadow economy in Ukraine.

Small business is characterized by social sources of intensification of collective labor, which is not the case in large firms. The spirit of initiative, entrepreneurship and dynamism inherent in small businesses is expressed in special human relationships and a specific socio-psychological climate. In small labor collectives, united by a common desire for independence and survival, the sense of mastery is revived, the elements of bureaucracy are reduced to a minimum.

The small number of small enterprises allows to bring together the interests of management and subordinates; among employees here, as a rule, there is no struggle for prestige, which absorbs much of the creative energy of employees in large corporations. In small firms, relations in the workforce are characterized by simplicity, lack of alienation, which creates a special atmosphere of teamwork, which helps to quickly resolve labor conflicts between administration and workers [285].

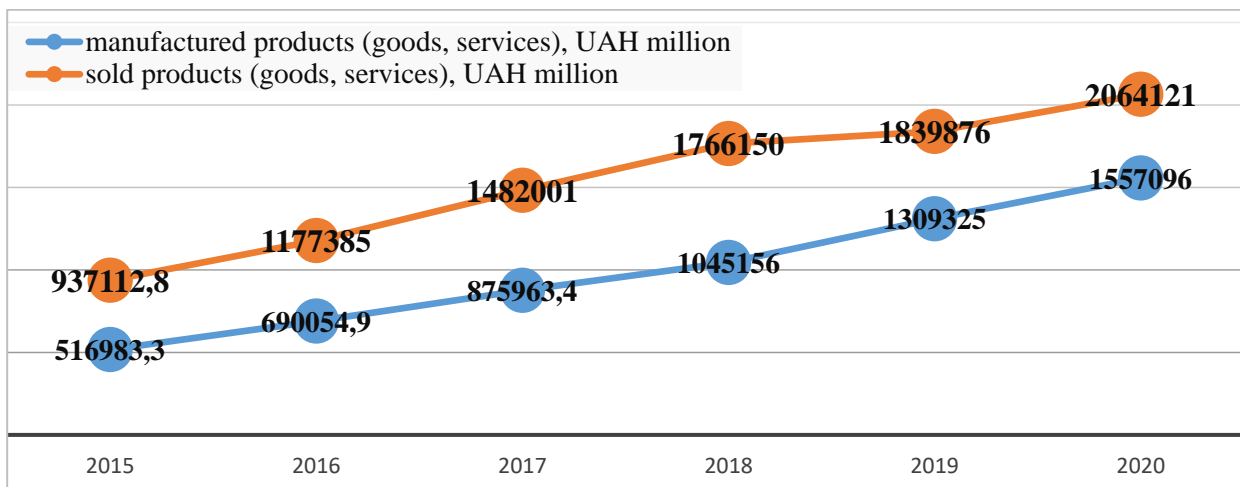
In addition, small business has significant socio-psychological benefits, which are based on a specific motivation to work, which involves overcoming the elements of alienation and attracting elements of economic and non-economic incentives.

Small business has not only economic and production and socio-economic advantages, namely: flexibility, dynamism, adaptation to changing technologies, the ability to quickly create and implement new equipment and technology, social stability, saturation of the labor market with new jobs, open access and ease of entry into this sector of the economy, but also significant socio-psychological benefits, which are based on a specific motivation to work, which involves overcoming the elements of alienation and attracting elements of economic and non-economic incentives.

Let's analyze the dynamics of the volume of manufactured and sold products (goods, services) by small businesses over six years, Figure 5.

The dynamics of production of goods (goods, services) by small businesses during the analyzed period indicates an increase in their volume by almost 1127008 million UAH. and in 2020 amounted to UAH 2,064,121 million. Regarding changes in the volume of products (goods, services) sold by small businesses in Ukraine, there is a clear trend of growth, in particular over the past six years, it increased by 1040112 million UAH. and in 2020 reached 1557096 million UAH, which in turn is almost 21% of the total sales of products (goods, services) by all enterprises of the country. Such

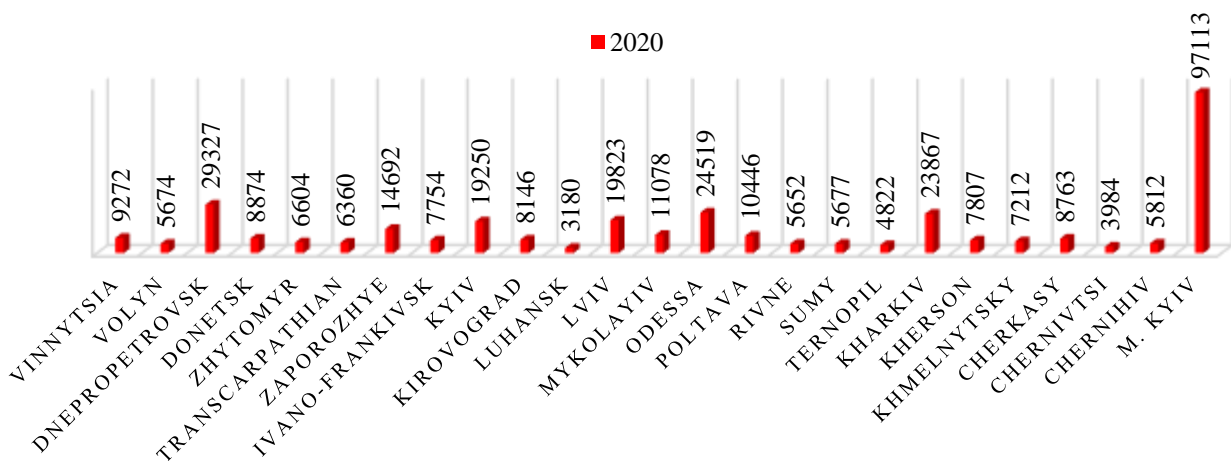
dynamics indicates an increase in sales of goods (goods, services) both at the domestic and national levels in general, which leads to increased revenues at all levels of budgets and the gradual strengthening of the economy.



**Fig. 5. The volume of products produced and sold at small businesses in the period 2015-2020.**

Source: calculated by the authors according to [283].

Since each region is characterized by certain territorial, geographical and economic features, it is interesting to analyze the number of small businesses in each region in 2020 to compare their realized potential (Fig. 6) [283].



**Fig. 6. Number of small enterprises of Ukraine by regions in 2020.**

Source: calculated by the authors according to [283].

The largest number of small enterprises in Ukraine in 2020 is concentrated in Kyiv, Dnipropetrovsk, Odessa and Kharkiv regions, and the smallest - Luhansk, Ternopil and Chernivtsi regions [283].

This situation may be due to the possible difficulties of running a small business - financial, economic and organizational.

Small businesses in the regions make up the vast majority of all types of businesses and are a "back-up option" for medium-sized businesses in the event of bankruptcy.

According to world practice, most small businesses do not operate for a long time, but go bankrupt in a short time, the main reasons for this are often called:

1. Incompetence of managers, which is associated with making the wrong management decisions in certain situations;

2. Unbalanced experience. An experienced engineer can work in a small agricultural enterprise, all equipment will be new, but due to lack of experience of the chief agronomist the enterprise may fail;

3. Natural disasters, catastrophes, fires that destroy everything or more part of the property collapses;

4. Lack of experience in bookkeeping, lack of business connections;

5. Market situation. A small enterprise can specialize in the production of certain products, and in the market there is a large company that produces the same products;

6. Lack of financial resources in the initial stages. A small business has already been set up, but additional financial resources are needed to operate successfully, but due to the high risk of the activity, it is not possible to raise additional funds, which leads to the collapse.

A small business is usually created by a person who either has experience either in manufacturing or in commerce. Experience in one thing does not mean making the right decisions in another. Successful production activities will not lead to the desired results if the products will not be sold or will be, but at low prices.

Increasing the life of the firm in the market and increases opportunities for success. A manager who heads a firm for a certain period of time has already gained experience and is able to lead it to effective activities. Frequent changes of owners or managers often do not lead to higher profitability.

If a small business is headed by two or three people, it gives a better chance of survival than when it is headed by one person, because collective decision-making is

more professional. Moreover, if each of the owners is competent in different stages of activity, the chances of success are much higher.

The greater the start-up capital when creating an enterprise, the greater the chances of its existence, because there is a possibility to cover losses from the first unsuccessful initial attempts at development and in crisis situations.

We will analyze the financial results of small business in Ukraine, in particular, analyze the dynamics of changes in net profit (loss) of enterprises for 2011-2020 (Table 7).

*Table 7*

**Analysis of financial results of small business in Ukraine, 2011-2020**

Years	Net profit (loss), million UAH	Profitable enterprises		Loss-making enterprises	
		in% to the total number of enterprises	financial result, UAH million	in% to the total number of enterprises	financial result, UAH million
2011	-10593,6	63,5	32518,8	43,0	44121,4
2012	-14748,3	63,0	35296,2	36,5	43112,4
2013	-29420,9	65,0	35748,2	37,1	50044,5
2014	-179297,5	65,7	45236,6	35,0	65169,2
2015	-118194,4	73,5	89390,4	34,3	224534,1
2016	-32206,8	72,8	99298,7	26,5	207584,8
2017	-20971,9	72,3	107934,7	27,2	131505,5
2018	31868,6	73,7	127658,9	27,7	128906,6
2019	89449,4	73,3	162563,0	26,3	95790,3
2020	-25529,4	70,7	142204,9	26,7	73113,6
Deviation (+,-) 2020-2011	-14935,8	7,3	109686,1	-7,3	124621,9
Deviation (+,-) 2020-2019	-114978,8	-2,6	-20358,1	2,6	94620,7

*Source: calculated by the authors according to [283].*

Based on the results of the analysis, there is a relative stability of financial performance of small businesses, so in 2020 almost 71% of enterprises made a profit, but similar figures in 2019 were 2.6% higher, equivalent to UAH 20,358 million. Such fluctuations may be due to significant fluctuations in the number of enterprises, inflation, economic instability and quarantine restrictions in the analyzed period.

For the development of small business is important state and development of enterprise resources, which means a set of material and financial resources that can potentially be used in the process of creating goods, services and other values [286].

The state of resources depends on the state and strength of production potential, which is determined by many factors: population; the size of the territory; a set of raw materials, fixed assets, etc.

Today, SWOT analysis remains a necessary management tool that is intensively used in enterprises to determine its strategic priorities for the future, but for its further effective use it is necessary to improve the methodology of its implementation, which will provide more accurate and realistic results.

The active use of SWOT-analysis is explained by the need to collect, process and analyze significant amounts of information with further development based on the results of strategic directions of development and search for methods of organizing effective work.

We conducted a SWOT-analysis of individual elements of the production potential of small businesses, which allowed us to allocate reserves of this sector of the economy, as well as to identify the main ways of small business development (Table 8).

Thus, the SWOT-analysis of certain elements of the production potential of small businesses in Vinnytsia region allowed to identify typical for enterprises in this sector of the economy the main problems:

1. Decrease in the quality of products, works, services as a result of the lack of regular tactical and strategic planning in the field of small business;
2. High costs for repairs and equipment downtime are associated with the availability of unskilled personnel in the field of small business;
3. Ineffective system of motivation and incentives for employees of small businesses contribute to reducing the stability of enterprises in the market;
4. Reduction of output, works, services by small businesses is due to the fact that they depend on suppliers who set high prices for resources and materials.

In addition, the results of the SWOT-analysis allow us to identify the main promising opportunities for small business development:

1. Reduction of productivity risk is possible due to the introduction of new equipment in production;
2. Ability to optimize management costs by attracting qualified professionals to the industry;

3. Prevention of equipment breakdowns due to the implementation in accordance with the schedule of maintenance of equipment;
4. Reducing the risk of consumer dissatisfaction with the quality of products, works, services due to operational maintenance of equipment;
5. Reducing the risk of losing competitiveness by updating the range and market development.

*Table 8*

**Strengths and weaknesses of the production potential of small businesses in Ukraine**

Strengths	Opportunities
1. The system of technical and technological maintenance of the equipment functions;	1. Improving the efficiency of small businesses;
2. Availability of qualified personnel;	2. Improving the quality of labor resources of the enterprise;
3. Professional development of existing and new labor resources;	3. Improving the quality of training of employees of engineering specialties;
4. Update of the technological park of equipment;	4. Prevention of problems;
5. Development of current equipment maintenance schedules;	5. Reduction of costs for the production of works and provision of services;
6. Reduction of productivity risk is possible due to the introduction of new equipment in production;	6. A focus on quality customer service;
7. Low risk of losing competitiveness due to updating the range and market development;	7. Search for reserves to reduce the cost of products, works and services;
8. Low risk of consumer dissatisfaction with the quality of products, works, services due to operational maintenance of equipment;	8. Clear delivery and work with suppliers;
9. Development of competitiveness of small businesses;	9. Implementation and development of time management
10. Focus on new consumers.	10. Organizations of operation of equipment maintenance system in accordance with the principles of management
	11. Reduction of resources spent on equipment maintenance
	12. The possibility of implementing progressive management methods
	13. Improving the quality of services, works;
	14. Improving productivity and equipment;
	15. Elimination of equipment losses
	16. Expansion of the range of products, works performed, services provided.

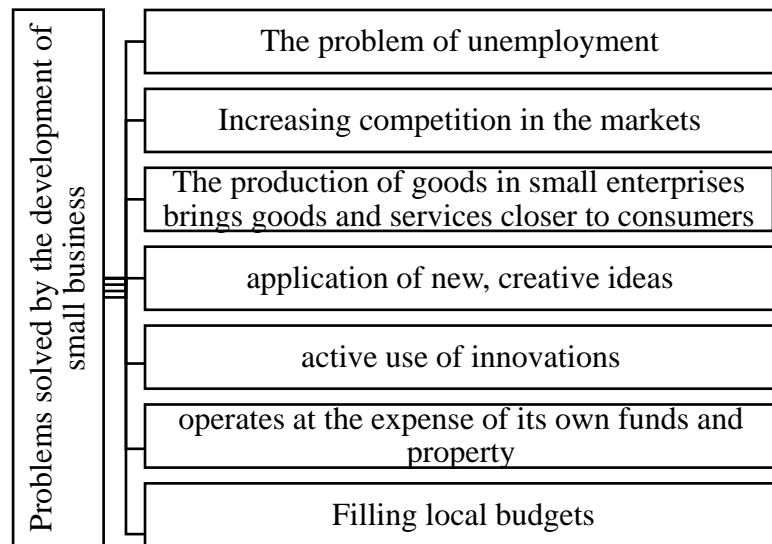


MANAGEMENT OF ENTERPRISES OF THE AGRO-INDUSTRIAL COMPLEX OF THE  
ECONOMY IN THE CONDITIONS OF GLOBALIZATION TRANSFORMATIONS

Weak sides	Threats
<ol style="list-style-type: none"> <li>1. Lack of tactical and strategic planning of works in the field of technical and technological maintenance of equipment;</li> <li>2. Lack of strategy for the development of technical and technological maintenance of equipment;</li> <li>3. Lack of clear internal coordination of operations;</li> <li>4. Lack of a systematic and systematic system of documenting the results of work that hinders quality service to consumers of goods, works and services in the field of small business;</li> <li>5. Lack of a well-established logistics system;</li> <li>6. High cost of resources and materials;</li> <li>7. Availability of unqualified staff in some specialties;</li> <li>8. Frequent breakdowns of equipment and individual components;</li> <li>9. Lack of regular supply of enterprises with new equipment, spare parts;</li> <li>10. High cost of production and provision of services.</li> </ol>	<ol style="list-style-type: none"> <li>1. Reducing the volume of production, works, services;</li> <li>2. Imperfect management structure of small businesses;</li> <li>3. Increasing demands of potential consumers to the products, works, services;</li> <li>4. Poor quality of raw materials used;</li> <li>5. Dependence of the quality of the work result on the personal qualities of the performers;</li> <li>6. High dependence on suppliers of raw materials;</li> <li>7. High competitiveness in the market of works, services;</li> <li>8. Rising prices for equipment, spare parts and consumables;</li> <li>9. Ineffective system of motivation and incentives for employees of small businesses contribute to reducing the stability of enterprises in the market;</li> <li>10. Decrease in quality of let out production, works, services as a result of lack of regular tactical and strategic planning in the field of small business;</li> <li>11. Decrease in quality of let out production, works, services as a result of lack of regular tactical and strategic planning in the field of small business;</li> <li>12. High costs for repairs and downtime of equipment are associated with the availability of unskilled personnel in the field of small business;</li> <li>13. Rising costs of production, works and services do not contribute to increasing the competitiveness of enterprises.</li> </ol>

*Source: generated by the authors*

In modern economic conditions, the resilience of small enterprises, including agricultural, is relatively low, but their role is growing in developed economies. With the right state support, the number of small enterprises grows, and with their help the state solves urgent social and economic problems and problems (Fig. 7).



**Fig. 7. Problems that are solved at the expense of small business.**

*Source: compiled by the authors*

Small businesses are forced to constantly develop and adapt to current market conditions, because in a competitive environment they need money to survive, and to get money you need to be better than others, and to better meet the needs of the population and society.

Most developed countries, along with understanding the importance of large corporate structures for the national economy, pay enough attention to and support small businesses. Small business in developed countries is the middle class, which is the basis for stable economic development. For example, small business in Europe is the basis of socio-economic development. There are more than 20 million small and medium-sized enterprises in the European Union, which account for more than half of total turnover and value added. About 70% of the EU population is employed in this sector. The largest number of small businesses operate in the trade, construction and food industries. In Spain, most small businesses account for agriculture - up to 80%, other industries such as construction, industry, shipbuilding are about 25-30%. There are a number of government programs aimed at supporting and developing small businesses. The government pays considerable attention to those small businesses that are actively involved in the country's social policy, creating additional jobs for vulnerable citizens (students, women, immigrants, etc.), thereby improving the economic situation and reducing government spending for these groups (social programs). The German government is actively supporting the development of small

businesses through financial and technological assistance. Small and medium enterprises in the field of science are financed separately. In the United States, the leading small business support body is the Small Business Administration (SBA), which operates through regional and local offices. In addition, congressional committees on small business and numerous special bodies in ministries, departments and local governments are involved. [287].

In Ukraine, small business has characteristics that significantly distinguish it from entrepreneurship in most foreign countries, namely:

- unsatisfactory level of technical armament with significant innovation potential;
- unsatisfactory management level (due to lack of knowledge, experience and culture of market relations);
- the desire for maximum independence (most small and medium-sized foreign companies work, for example, under franchise agreements);
- a combination of several activities within one small enterprise, the inability in most cases to focus on a single product development model;
- insufficient infrastructure to support small business;
- lack of complete and reliable information on market conditions, low level of consulting services and special educational programs;
- practical lack of state financial and credit support (high cost of loans makes it impossible to attract them for business development), etc.

Small business in Ukraine has been operating for a long time in difficult conditions of socio-economic development. In addition, in 2014 Ukraine began an economic crisis (due to aggravation in the east, annexation of Crimea) - the third time in the history of independence, which resulted in the destruction of production facilities and transport infrastructure, loss of intersectoral and logistical links, complicating international relations. unavailability of energy raw materials (coal), significant increase in investment risks and negative expectations of the population. The accumulated systemic imbalances, which resulted in devaluation and inflation shocks, had a negative impact [288].

The COVID-19 pandemic has been a real challenge, especially for small businesses in Ukraine and the world at large. In particular, the main problems for business were: the general decline in the purchasing power of the population; quarantine restrictions on the simultaneous stay of a certain number of employees in the premises; quarantine restrictions on the functioning of agricultural markets; complication of logistics of agro-industrial complex products; lack of proper support from the state, etc. A significant number of enterprises that did not have sufficient financial reserves were forced to suspend their economic activities, including a significant number, namely small and medium-sized enterprises. Other companies are forced to be in a constant struggle for the opportunity to "survive" and minimize the loss of their competitive advantage in target markets.

Quarantine measures in Ukraine have a significant negative impact on the activities of enterprises and have affected not only production but also sales due to limited distribution channels (including open markets for households) and export markets for business.

The COVID-19 pandemic had a significant negative impact on the development of small businesses regardless of the type of economic activity, including the introduction of quarantine restrictions, provoked an increase in the financial burden on businesses, such as taxes, utilities, loan repayments and others. no one canceled, as well as the ability to work properly, in turn led to a reduction in jobs, rising prices for basic agricultural products, reduced financial revenues to the state budget and, of course, reduced corporate profits. This impact was particularly acute for small enterprises engaged in the production, processing and sale of agricultural products.

The Cabinet of Ministers of Ukraine (CMU) within the State Program of Economic Stimulus to overcome the negative effects caused by restrictive measures to prevent the emergence and spread of acute respiratory disease COVID-19 has developed a number of measures to support and develop the agricultural sector, including:

- ensuring broad access of producers to financial resources for the acquisition and renewal of fixed assets and the creation of greater added value through government credit programs and subsidies;

- ensuring uninterrupted sales of agricultural products in a pandemic by establishing distribution channels, raising awareness of producers and providing assistance in entering export markets.

It is most difficult to survive quarantine restrictions in a pandemic without government support for small and medium-sized businesses. Although the Cabinet of Ministers has developed a number of measures aimed at the development of the agricultural sector, their list is quite limited and is not possible to apply in the post-crisis period, which will be the most difficult.

In order for small business in Ukraine to become a powerful force on the path of economic development, it is essential to create favorable conditions for this. In world practice, there are three main areas of state support for small business:

- financial assistance (preferential lending to certain sectors, government support programs, grants, etc.);
- public procurement system (usually on a contractual basis);
- providing advisory and technical assistance.

Mazur AG notes that in Ukraine there are no clearly defined areas of state support for small business at the regional level (taking into account the specifics of each region). According to the scientist [289], the priority measures to support and identify the main prospects for small business development at the regional and local levels are:

- formation of a favorable business climate (bring current regulations of local state administrations and local governments in line with the principles of state regulatory policy; develop a mechanism for partial reimbursement of interest rates from local budgets on loans raised by small and medium enterprises for investment projects; to form regional databases on investment proposals of small enterprises);
- in order to create new jobs, reduce unemployment and stimulate the development of entrepreneurship, local authorities need to promote self-employment of the unemployed by providing them with one-time financial assistance to start their own business;
- when retraining and improving the skills of the unemployed, special attention should be paid to professions that provide an opportunity to start your own business;

- to stimulate the development of small business in rural areas (to develop mechanisms for providing material assistance to small enterprises that produce environmentally friendly agricultural products, process and export them; promote the reorientation of the liberated labor force to new activities in agriculture and green tourism) To promote the involvement of the unemployed registered in cities in employment in newly created jobs in rural areas);

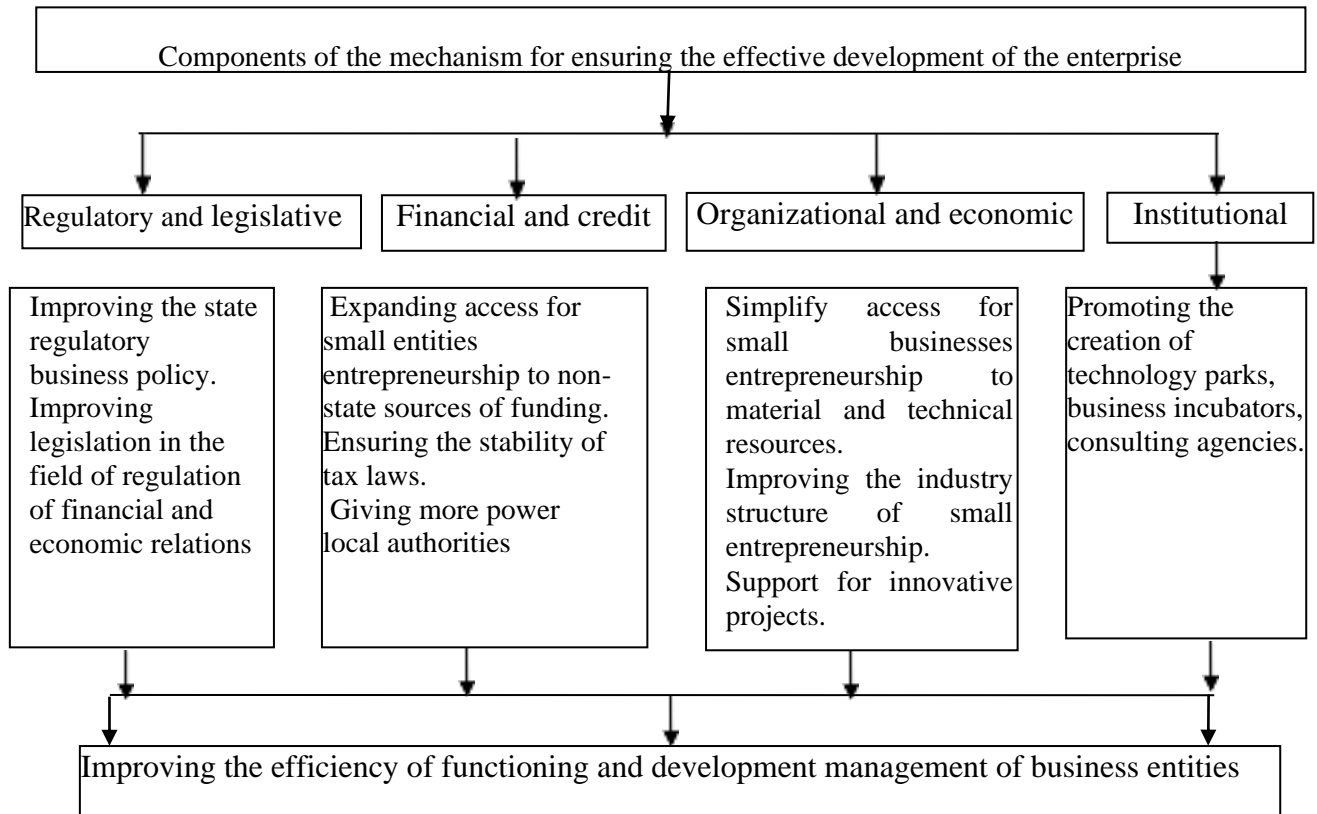
- to stimulate regional competitions (tenders) for the purchase of goods and services by small enterprises at the expense of state and local budgets, as well as the participation of entrepreneurs in the implementation of regional orders;

- introduce mechanisms of public-private partnership in the field of small business support at the local level;

- in order to provide information to small entrepreneurs and facilitate their access to the necessary information to form a database in the regions, which will accumulate and organize information on the current legislation of Ukraine; information and analytical materials on the development of entrepreneurship in the region, the price situation, regulatory policy, existing banking institutions and credit unions with a list of their services in the field of lending to small businesses [290].

Despite a number of recent regulations adopted by the highest authorities and administrations, the development of small business in Ukraine takes place in an unfavorable macro- and micro-environment: there are many problems that need to be addressed at different levels. Analysis of static data and opinion polls show that Ukraine's small business sector lags behind the capabilities and needs of the Ukrainian economy. An analysis of the activities of small businesses shows that a significant number of newly created small businesses can not start their work due to lack of sufficient share capital, raw materials, own space and equipment, practical skills and entrepreneurship of employees in doing business. They experience problems of a production nature, difficulties in selling products, forming the appropriate clientele. Due to the small volume of economic activity, some small businesses are unable to attract qualified professionals, hire capable workers and provide them with high wages. Constraining factors such as the general decline in domestic commodity production,

rising prices, inflation, low solvency of the population, racketeering, corruption, etc. also have a negative impact on the development of small business. This necessitates the development of an effective mechanism for the development and state support of small business on such components as: - regulatory and legislative; - financial and credit; - organizational and economic; - institutional (Fig. 8) [291].



**Figure 8. Components of the mechanism for ensuring the effective development of small businesses**

*Source: compiled by the authors for [291]*

The analysis of current regulations in the field of small and medium business support allowed us to highlight the most important

tasks of the authorities and identify priority areas for small development entrepreneurship. In Ukraine, the following areas include:

- production and processing of agricultural products;
- production of food, industrial goods, consumer goods;
- medicines and medical equipment;
- provision of industrial, communal and household services;
- construction of residential, industrial and social facilities.

Thus, one of the important tools of state support for small businesses in the agricultural sector is direct financial assistance, which can be provided through preferential subsidies to small businesses, providing guarantees for loans from other sources and preferential taxation. An important tool of state assistance to small enterprises in most industrialized countries is the system of public procurement.

This form of relationship allows small businesses to provide a guaranteed market, accelerate the process of capital accumulation, expand production capacity, strengthen competitiveness, upgrade equipment and more.

Another important tool to support small businesses in the agricultural sector is the organization of consulting services and services to enterprises in this sector of the economy [292].

It should also be noted that a special system of state support exists for small businesses engaged in research. The main place in this system is occupied by financial assistance and information support of research works.

In modern economic and political conditions, there are many parties, programs which contain mechanisms and tools to support and develop small business. The main ones are [293]:

- the main condition for economic and social development of Ukraine is the development of small business;

- providing the population with jobs, improving the quality of life of the population through the analyzed measures related to the development of small business;

- the development of innovative activities of small businesses contributes to the increase in a significant number of new small businesses, as well as new jobs, especially for vulnerable groups;

- the development of small business contributes to the development of an individual approach to each region, the development of entrepreneurship takes into account the natural and climatic conditions of the region, historical background, etc.

The main purpose of assessing the effectiveness of small businesses is to identify opportunities for their further development through fuller and more rational use of its



internal reserves and, taking into account changes in the external environment. It should be noted that the assessment of economic efficiency of the business can not be done by a single indicator, and therefore should use a system of indicators that reflect the various aspects of the business entity [294].

It is advisable to assess the economic efficiency of small business:

- in terms of the interests of business owners and potential investors;
- business entities or managers of the enterprise;
- the state or local governments.

The most important factors and areas for improving the economic efficiency of small businesses are:

- scientific and technological progress;
- the most efficient use of production assets and labor resources;
- optimal investment and innovation policy;
- use of marketing communications;
- improving the development of diversification, specialization and cooperation;
- combining, improving the organization of production and labor at the enterprise;
- improving the enterprise management system, etc.

There are many specific ways to increase the efficiency of various economic entities, today the following main areas are of great practical importance [295]:

- the choice of effective forms and methods of entrepreneurial activity;
- intensification and increase of efficiency of innovation and investment activity;
- increasing the competitiveness of products (services) of enterprises;
- stability of state economic and social policy aimed at supporting entrepreneurship;
- positive public opinion in relation to entrepreneurs and entrepreneurship;
- preferential tax regime, which provides effective incentives for entrepreneurship;
- availability of a developed infrastructure to support entrepreneurship (availability of innovation centers; specialized firms that provide financial assistance

to start-up entrepreneurs; consulting centers on management, marketing, advertising; courses and schools for training entrepreneurs, etc.);

- the existence of an effective system of intellectual property protection, which applies not only to inventions but also to all products, innovative ideas, concepts and methods of business activity.

According to world experience, 70% of business inefficiencies are due to imperfect management and the use of insufficient information in making and justifying management decisions. In this regard, the current management systems of small and medium enterprises should be restructured in the direction of as close as possible to the modern requirements of a market economy and provide for the use of strategic management mechanism [296].

The most important areas of improving the efficiency of the system and management processes in small businesses include:

- improving the organizational structure of enterprise management;
- rationalization of information system and document circulation;
- advanced training of employees, in particular management staff;
- use of strategic management tools during business planning and development, etc.

Currently, the urgent tasks in the field of small business development that need regulation include the following [297]:

- simplification of permitting procedures and procedures for state control, obtaining permitting documents and reducing the time of such procedures;
- improving the procedure for conducting tax and statistical accounting and reporting, reducing tax pressure on the economy and ensuring its uniformity;
- reduction of pressure from regulatory authorities, combating raiding and corruption;
- improving the infrastructure of business development;
- implementation of regional policy to promote small business development;
- creation of favorable financial preconditions for starting and carrying out business activities, availability of financial resources for entrepreneurs;

- providing state support for small businesses working in the field of investment, innovation and scientific and technical activities,

introduction of foreign experience in launching new ones innovative technologies in economic activity;

- increasing attention to information support, training and retraining;

- support of new mechanisms of cooperation of enterprises with executive bodies and the public.

The study suggests that today there are many problems that hinder the development of small businesses in the country. Their solution will increase the efficiency of entrepreneurial activity.

The most problematic factors for doing business in our country are:

1. inflation and political instability;
2. high tax rates and the complexity of tax legislation;
3. regulation of the foreign exchange market;
4. corruption;
5. insufficient ability to innovate;
6. inadequate quality of infrastructure;
7. Insufficient educational and qualification level of employees, etc.

The main role in solving these problems should be played by the state.

Thus, in order to improve the state and further development of small business, it is necessary to implement a system of effective state regulation of the mechanisms of functioning of business entities.

At the level of business entities, the priority in the field of economic efficiency should be given to the rational use of production capacity, minimizing costs, saving resources, implementing innovations, improving the efficiency of enterprise management [298].

Insufficient attention paid by the state to the support and development of small business does not allow to increase the economic efficiency of small businesses, although small business itself, without requiring large start-up investments, guarantees rapid resource turnover, high growth dynamics, helps to solve problems economically

and quickly. restructuring the economy, flexibly responds to changing market conditions, gives the economy additional stability.

The necessary conditions have already been created for the implementation of effective state support for small business in the agro-industrial complex. These conditions include:

- high level of entrepreneurial abilities and entrepreneurial activity of citizens;
- constitutional guarantees of the possibility and freedom of entrepreneurial activity;
- legislative consolidation of the status of small business as a special type of economic activity for which special measures of state support may apply;
- the presence (at different stages of formation) of almost all elements of the small business support system, successfully operating in industrialized countries;
- the achieved level and existing trends in the development of small business can become the basis for sustainable development of this sector of the economy.

The purpose of the state policy of development and support of small business is to create political, legal and economic conditions for the free development of small business, which provide:

- increasing the social efficiency of small businesses;
- increase in the number of people employed in the small business sector, average income and the level of social protection of small business workers and, as a consequence, the formation of the middle class - the basis of political stability;
- growth rates of small business development in the agro-industrial complex are expressed as a strategic factor in socio-economic development of the state, increasing the share of small business in the formation of all components of gross domestic product (production of goods, services, taxes), expanding spheres of activity and economic strengthening of small enterprises [ 299]

To achieve the goal of state policy in the field of small business must be solved tasks:

- formation of a legal environment that ensures the smooth development of small business;

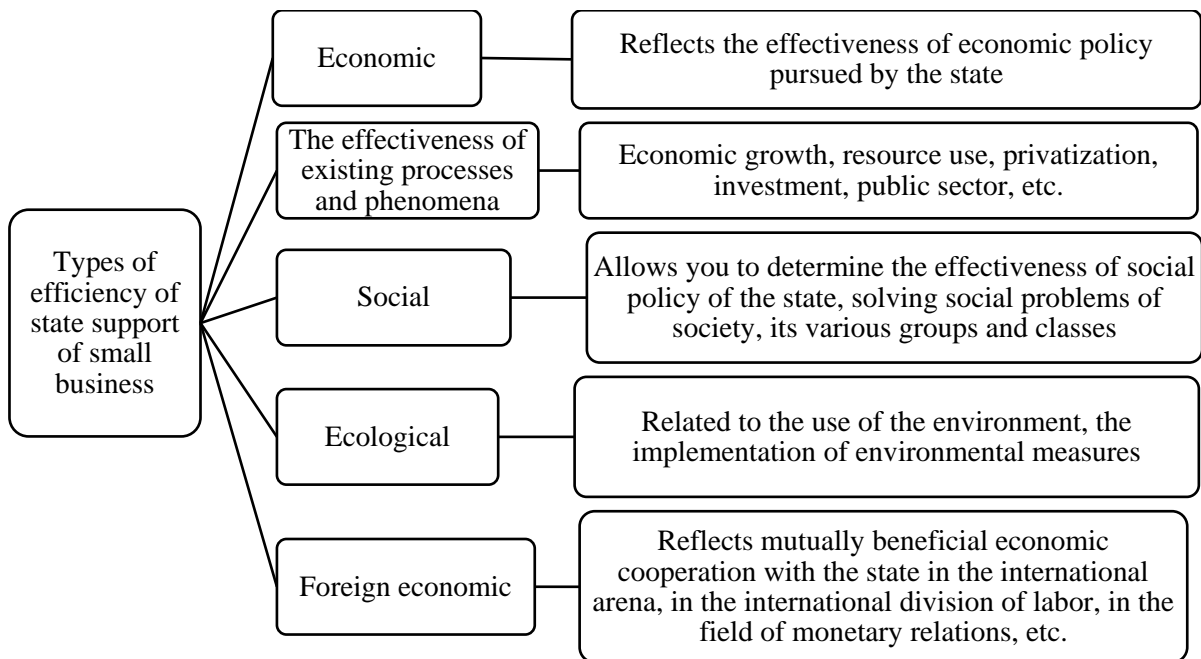
- providing legal, judicial and physical protection to small businesses;
- financial support of state support for small business;
- formation of infrastructure that ensures the availability of necessary resources and services for small businesses;
- increasing the efficiency of public authorities and local governments to support small business.

In order to expand the opportunities for small businesses (including beginners) to access the sources of funds needed for their development, it is necessary to organize a set of measures in the following main areas:

- creation of credit cooperatives, mutual credit societies, other non-bank credit institutions, which will provide funds on a repayable basis for investment projects of small businesses in the agro-industrial complex;
- development of an effective mechanism of state guarantees that help share risks between the state, credit institutions and small businesses;
- subsidizing the interest rate on loans and borrowings issued to certain categories of small businesses by commercial organizations;
- introduction of standard financial lease (leasing) schemes in the field of small business;
- formation of a system of credit histories of small businesses by specialized organizations (credit bureaus) in order to access small businesses to loans from commercial banks.

The effectiveness of state support is the result of the interaction of state resources to achieve the goal of the state with the fullest use of resources.

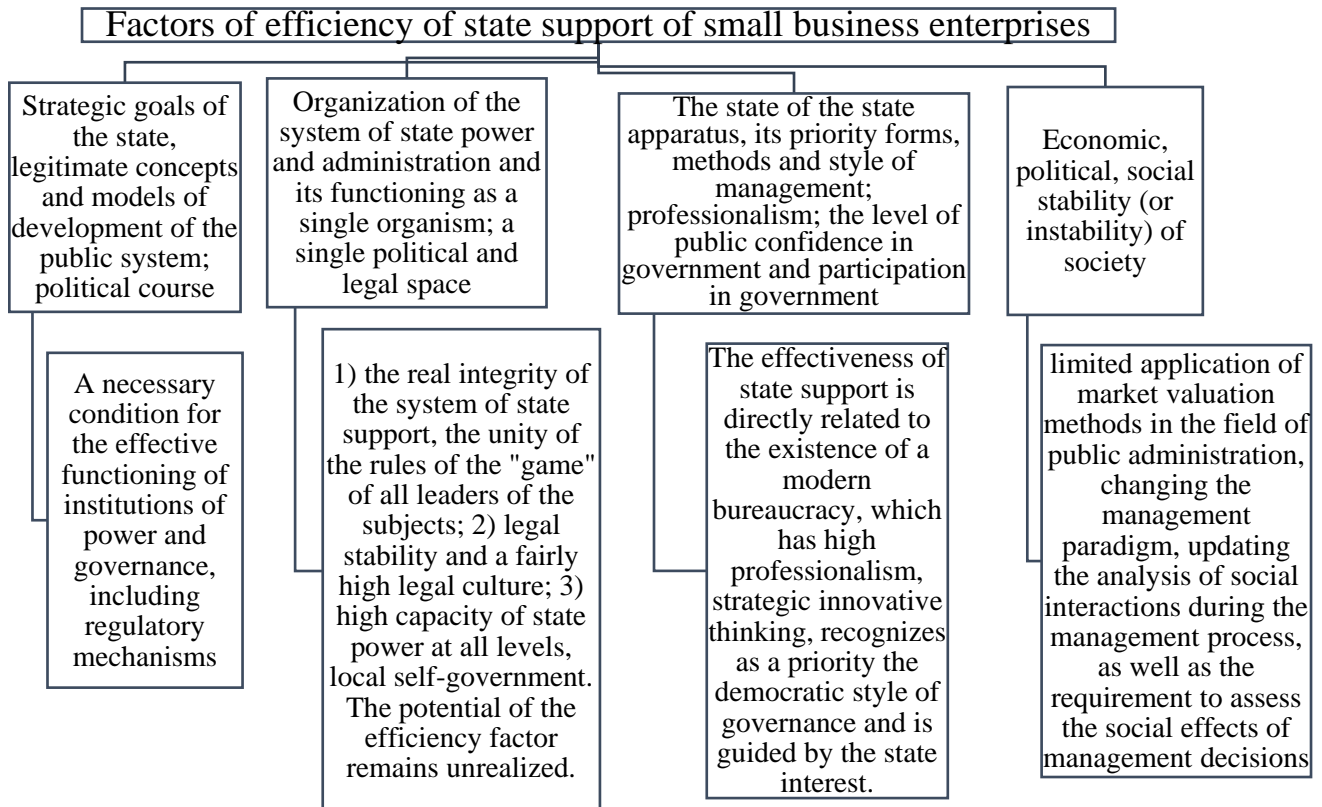
The main types of efficiency of state support for small business include: the effectiveness of existing processes and phenomena, economic, social, environmental and foreign economic efficiency (Fig. 9).



**Fig. 9. Types of effectiveness of state support for small business**

Source: compiled by the authors

Thus, considering only the result of activities, we can only talk about its effectiveness, and to determine the effectiveness it is necessary to compare the results obtained and the cost of achieving them (Fig. 10).



**Fig. 10. Factors of efficiency of state support of small business**

Source: compiled by the authors

The implementation of these measures will significantly improve state support for small business development in Ukraine.

The comparison of goals and a complete list of measures allowed to summarize the information and formulate seven main goals of state support for small business:

- 1 Support for investment projects and modernization;
- 2 Infrastructure development;
- 3 Promoting innovation;
- 4 Stimulating entry into new markets;
- 5 Improving resource and energy efficiency of enterprises;
- 6 Facilitating the coordination of business entities;
- 7 Provision of professional staff.

Differentiation and individualization of demand in the sphere of industrial and personal consumption contribute to small-scale production. the development of small business production creates favorable conditions for economic recovery, as the competitive environment develops, additional jobs are created, structural adjustment is more active; the consumer sector is expanding. in addition, the development of small business leads to saturation of the market with goods and services, increase export potential, better use of local raw materials.

Solving the existing problems of small business development in Ukraine, creating an appropriate environment requires a radical restructuring of public policy to promote this sector of the economy. In particular, it is a question of creation of the corresponding legal base of development of small business, financial and credit and material and technical support, scientific and methodical, information and advisory and staffing of small business.

Improving the quality of the business environment, reducing the regulatory burden on business, establishing dialogue between business and government are important prerequisites for reviving business activity, creating favorable conditions for business development and attracting investment in the country's economy.

Effective development of small business is the main indicator of stability and progressive economic development of the country, because it is the business sector

that provides the country's economy with all necessary resources and contributes to the realization of existing potential. The level of economic development of the region depends on the state of development of small business, because the level of consumption of the population in the region reproduces their purchasing power and, accordingly, the possible expected profits of entrepreneurs.

Small business in Ukraine, as in other countries, is a priority for the development of regions of the country and the formation of its system of economic development.

In the course of research, the following conclusions can be drawn:

1. Features of small business include: small scale of activity, their mobility, relatively short average lifespan, weak resilience to the environment, relatively high risk and lack of clear functional separation between administration and production staff.

2. The main problems faced by small businesses are related to finances, organization of activities, information and legislation. Often, own funds are not enough to carry out production activities, and it is very difficult for such enterprises to take a loan or attract investors.

3. Imperfections in legislation and the tax system hinder the development of small business, and changes in the tax system are not always timely communicated to enterprises, which negatively affects their functioning.

➤ Thus, the successful development and operation of small business in Ukraine is possible under the following conditions:

✓ macroeconomic stabilization as one of the most important factors in improving the national business environment;

✓ maintaining a balance between the need for further structural and institutional reforms of the country's economy, in particular in terms of improving the regulatory climate, the lack of abrupt and unjustified changes in the regulatory framework;

✓ fight against corruption and protection of property rights;

✓ consistency and continuity (heredity) of the formation and implementation of policies to promote small business development and effective coordination of



actions of authorities at all levels in this process;

- ✓ optimization of the tax system, in particular in the direction of simplifying tax administration procedures;

- ✓ harmonization of the system of normative legal acts that directly or indirectly affect the conduct of business activities by repealing obsolete normative legal acts and amending existing normative legal acts that complicate the conduct of business activities;

- ✓ creating conditions for the owners of personal farms to acquire the status of business entities;

- ✓ ensuring open and equal access of entrepreneurs to natural, energy and other resources, including alternative energy sources, necessary to ensure the operation of enterprises, simplifying the existing conditions of connection to electricity and other networks and, accordingly, reducing the cost of such connection;

- ✓ development of a regulatory framework that will allow the creation of new markets for fast-growing goods and services, in particular the market for biomass, which can be used for energy purposes.

- ✓ development of an effective system of local self-government, introduction of strategic planning of economic development in general and development of small business in particular in newly created communities;

- ✓ reducing the level of shadowing of the region's economy;

- ✓ ensuring effective interaction between all levels of government in the formation and implementation of small business development policy;

- ✓ adequate institutional, personnel and financial support of the policy of promoting the development of small business at the regional (local) level;

- ✓ establishing a reasonable cost of land rent.

## **11 Agro-energy potential of soil in the context of environmental safety**

In addition to the economic efficiency of crop production, the assessment of bioenergy efficiency, the use of reserves to reduce energy consumption at all stages of production - sowing, growing, harvesting, harvest handling and use is becoming increasingly important. Compared to economic efficiency, energy assessment of production efficiency has certain advantages, as it does not depend on the price factor. The results of energy analysis retain comparability over time, and therefore the assessment of energy efficiency of the technology is representative for different levels - enterprises, industries, countries.

The term "energy analysis", says S. Bakai was adopted in 1975 by a working group of methodology led by the International Federation of Advanced Studies in Sweden, although its idea and expediency were emphasized in the nineteenth century. It is a tool for determining the level and structure of energy consumption, for quantitative comparison of energy flows at the input and output of production "[307, p. 77].

The aim of the study is to determine the bioenergy assessment of variety efficiency and productivity taking into account the resource-provided soil fertility and to investigate the importance of humus as a fertility regulator, to prove the need to increase organic fertilizers and reduce mineral to improve its fertility.

### **Actual scientific researches and issues analysis**

The land fund of Vinnytsia region is a unique investment potential - 21% of the available lands are chernozem-type soils. More than 2 million hectares of agricultural land are assigned to the region's land users, which is 3.3% of the area of Ukraine.

Features of land as an object of evaluation are determined by its special place in real estate. Real estate is land as a separate object of assessment, or land together with buildings, on which buildings or structures are located on the site. We consider real estate, which is an industrial means of production, so in this section we consider land as a future site for construction, and buildings and structures together with land only

those that have a production purpose or provide infrastructure that serves this production.

The method of use of land, buildings and structures is specified by law and changes in this method require coordination with local authorities. Since we are talking about real estate as a means of production, we consider land as an integral part of the assessed property complex and, accordingly, its agricultural use is considered only in a set of other issues. Modern views on the problem of valuation reflect the objective property of land to influence the results of real estate appraisal in general, depending on individual characteristics, and it is:

- is not the result of previous work;
- spatially limited;
- irreplaceable by other means of production;
- has a constant location;
- does not wear out when used properly;
- territorially diverse;
- has a specific individual utility.

The cost of the plot depends on:

- from the environment, including infrastructure;
- from permitted areas of use;
- from what is located on it;
- from natural conditions;
- from the subsoil and the composition of the surface layer (not always);
- from political stability and fluctuations in demand;
- from the state of the economy and the level of development of the country, region;
- from the state of its own useful properties

There are effective, comparative and costly approaches to assess the value of land. It is sometimes suggested, taking into account the experience of experts, information capabilities, assessment objectives, nature and functional profile of plots, to single out the following basic approaches as methodologically independent: 1) the

balance method for the land; 2) the method of capitalization of land rent; 3) the method of mortgage sale; 4) the method of ratio (transfer); 5) the method of development costs".

Since the normative valuation of land provides an invariable Methodology for determining the value of the land in the course of highly specialized calculations (for example – when determining the land tax), at present the use of potential for land valuation is possible only by the Methodology of expert monetary valuation of land for sale. different assessment methods, if they provide the necessary objectivity and do not conflict with applicable law.

Currently, expert monetary valuation of land is carried out in accordance with the methods provided by current legislation, and especially the above Methodology, which regulates the valuation of all categories of land during civil law agreements and revaluation of fixed assets for accounting in accordance with law. In this case, the land plot (its part) is considered free from improvements and suitable for the most efficient use. Вартість землі має відповідати грошовій сумі, яка будучи покладеною до банку дасть у вигляді відсотків прибуток такого розміру як і рентний дохід, який щорічно одержується з даної земельної ділянки.

In the work of such leading scientists as G. Kaletnik, I. Honcharuk “The world experience in the regulation of land circulation” (2020) states that land is one of the most important strategic economic resources, the management of which should be strategic in applying the most effective principles and mechanisms, especially for countries for which land is a significant share of income states. Therefore, Ukraine faces an important task to develop its own model of land relations, which has a unique natural potential and taking into account the experience of other countries [308].

In the work of I. Shuvar “On soil fertility should always care” (2011) it is noted that today the main priorities of agricultural production are focused on environmental methods, because they are able to ensure the improvement of soil fertility. Significantly improves the condition of the soil grown in crop rotation of perennial legumes, soybeans, peas, which have features (with the help of nodule bacteria) on the root system to fix atmospheric nitrogen and use it to form their seeds, and leave some in the

soil. Growing plants under organic farming significantly increases the storage rate of the harvest. In addition, energy consumption is reduced by two to three times. [309].

Tanchyk S, Man'ko Yu "Effectiveness of environmental soil management systems in the Forest-steppe of Ukraine" (2017) indicates that the current state of agro-landscapes of Ukraine is marked by an ecological crisis caused by long-term violations of rational land use norms. Manifestations of this crisis are degradation of soil cover, its erosion, reduced fertility, deterioration of quality and safety of crop products and the environment [310].

According to studies by M. Franchuk, H. Khaietskyi, V. Shevchuk (2021). Soil and climatic conditions of organic farming become especially important in the conditions of climate change. The risk of declining productivity of agricultural plants may arise due to the impact of climate change on rainfall and water balance of the agro-ecosystem.

Climate change controls the stability of agroecosystems, especially during the transition from traditional to organic crop production. This indicates the need to improve the management of agricultural systems, natural resources and the active implementation of the strategy of sustainable development of the region [311].

### **Features of soil energy potential in agricultural production**

Agricultural production as an activity allows not to dissipate, but to increase the additional energy that enters the Earth from the universe. Although each inhabitant of the planet has 25 MW of space energy, only 0.001% of the power of the light flux that reaches the soil surface is processed. Due to photosynthesis, human labor contributes to the accumulation of solar energy, refutes the second law of thermodynamics (entropy), creates an additional product (additional value), provides a balanced development of nature and society. The coefficient of transformation of solar energy into chemical ( $U_{skj}$ ) reflects the part of photosynthetic active radiation of the Sun ( $C_o$ ), which falls on 1 ha (GJ) and accumulates the yield ( $M_{skj}$ ) –  $S$ -th – output products,  $k$ -th - grade in  $j$ -th conditions (q / ha) is determined by the formula

$$U_{skj} = M_{skj} \cdot V_{skj} \cdot 100 / C_o, \quad (1)$$

where –  $V_{skj}$  the energy equivalent of 1 c of  $S$ -th product of  $k$ -th - grade in  $j$ -th conditions.

Thus, the essence of bioenergy evaluation of the efficiency of varieties, technologies, etc. is to compare the amounts invested in the production of non-renewable energy and assimilated by the harvest of solar energy.

Non-renewable energy costs are of the greatest practical importance in energy analysis. However, crop production is based mainly on the use of solar energy, the amount of which in total costs (assimilated energy) exceeds 97%. Therefore, in determining the energy efficiency of the agroecosystem in the balance of energy consumption, solar energy is taken into account. In other cases, this is not necessary.

The coefficient of bioenergy efficiency ( $K_e$ ) is characterized by the ratio of the amount of energy at the input ( $E_{inp}$ ) and output ( $E_{outp}$ ) and is described by the formula

$$K_e = E_{inp} / E_{outp}. \quad (2)$$

In the structure of sown areas of Ukraine, the dominant positions belong to grain crops. The importance of grain farming is determined by its high share in agricultural production - from 42 to 58% of arable land, depending on the agro-ecological zone. The most common cereals are winter soft wheat (6–8 million ha) and spring barley (4–5 million ha) [312].

The energy coefficient ( $K_e$ ) of production of grain or all biomass to be harvested is determined by the formula [307, p. 79]:

$$K_{skj} = M_{skj} \cdot V_{skj} / E_{skj}, \text{ or } K_{Mki} = M_k \cdot V_k + M_{kj}^* \cdot V_k^{i-j} / E_{kj}, \quad (3)$$

where:  $S, k, j$  - indices of product type, variety, production conditions;  $M_k$  - weight of main products, q / ha;  $M_{kj}^*$  - weight of by-products, q / ha;  $V_k, V_k^{i-j}$  - energy equivalents of 1 quintal of grain and by-products, MJ;  $E_{kj}$  - total energy consumption per 1 ha of crops of the  $k$ -th grade in the  $j$ -th conditions of production for grain ( $E_{skj}$ ) or for the entire harvest ( $E_{kj}$ ) MJ.

In the total energy consumption per 1 ha of crops in unfavorable years, a significant share may be the costs associated with the death of crops, which are

formally described by the equation:

$$\Delta E_k^j = (1 - \lambda_k^j) / e_k^j, \quad (4)$$

where:  $\lambda_k^j$  - the coefficient of preservation of crops  $k$ -th grade in  $j$ -th production conditions;  $e_k^j$  - total energy consumption per 1 ha of dead crops.

Biological harvest is accepted without losses during harvesting or that part of it, which is provided by mechanized harvesting taking into account technically determined losses. In terms of grain production, the largest costs of total energy are associated with the application of fertilizers and plant protection products, which account for 60-80% of all costs. The energy equivalent of the active substance of 1 kg of nitrogen fertilizers is at the level of 86.8 MJ, for phosphorus - 12.6 and potassium 8.3 MJ. Per 1 quintal of grain and the corresponding amount of straw, the energy equivalent of the absorption of mineral nutrients reaches 313 MJ for winter wheat, 245 MJ for barley, 294 MJ for oats, and 579 MJ for peas [307, p. 80].

Productivity of varieties by energy efficiency is estimated for the given levels of resource-provided soil fertility. Its upper limit is an environmentally friendly level. The required energy consumption to compensate for the humus used for the formation of the  $k$ -th grade in the  $j$ -th conditions ( $E_{B_1kj}$ ) is determined by the amount of organic fertilizer that must be made to replenish the amount of humus lost in the formation of the crop. The energy intensity of the humus compensation dose ( $E_{B_1kj}$ ) for the  $k$ -th grade in the  $j$ -th conditions is calculated by the formula:

$$E_{SB_1kj} = [(Y_{kj} \cdot g - \Pi_{kj} \cdot K_n) / K_o (1 - P_j) \cdot 10] \cdot V_{B_1}, \quad (5)$$

where:  $Y_{kj}$  - grain yield (biological)  $k$ -th grade in  $j$ -th production conditions, q / ha;  $\Pi_{kj}$  - the number of post-harvest residues of the  $k$ -th grade in  $j$ -th conditions, q / ha;  $g$  - standard of humus losses per 1 quintal of grain and the corresponding amount of by-products, quintals;  $K_o, K_n$  - the yield of humus from organic fertilizers and post-harvest crop residues;  $P_j$  - coefficient of unproductive losses of applied organic fertilizers;  $V_{B_1}$  - energy equivalent of 1 ton of organic fertilizers. For manure of 60% humidity it is equal to 840 MJ. The right part of equation (5) is the amount of organic

fertilizer ( $N_i$ ), which is necessary to compensate for the loss of crop formation ( $V_i$ ) humus, t / ha.

Thus, energy efficiency depends on energy costs for crop production. At the same time, the conversion of solar energy into bioenergy is closely linked to soil fertility. The integrated indicator of soil fertility is determined by organic substances, which are 85–90% represented by humus, which affects all indicators of soil fertility and is formed at the stage of the Small Biological Cycle of Substances and Energy.

Under conditions of intensive use of agricultural lands, the importance of humus as a regulator of fertility and the basis of soil biogenicity increases significantly. Humus determines the more efficient perception and accumulation of nutrients introduced with fertilizers and the uniformity of their supply to plants, disposal of pesticides and other chemicals, mitigation of extreme weather conditions. It activates biochemical and physiological processes, enhances metabolism and the overall energy level of processes in the plant body, promotes increased supply of nutrients, which is accompanied by increased productivity of agrobiocenosis. Hence, there is a direct correlation between humus, soil energy, yield and quality of crop production [309, 310].

The amount of energy required for the application of 1 ton of organic fertilizers ( $N_{kj}$ ) according to the consolidated standards ( $\sum_{i=1}^n E_i B_1$ ) and the corresponding cost items can be determined by the formula:

$$E_{1B_1kj}^1 = N_{kj} \sum_{i=1}^n E_i B_1. \quad (6)$$

Compensation for spent humus under the  $k$ -th grade in the  $j$ -th production conditions for total energy consumption ( $E_{B_1kj}$ ) is calculated by the formula:

$$E_{B_1kj} = E_{SB_1kj} + E_{B_1kj}^1. \quad (7)$$

With organic fertilizers, a certain amount of minerals and trace elements is introduced into the soil. However, much of the plant nutrients are returned with mineral fertilizers. The dose of compensation of the  $i$ -th type of mineral nutrient in the



cultivation of the  $k$ -th grade in the  $j$ -th production conditions ( $N_{ikj}^1$ ) is described by the equation:

$$N_{ikj}^1 = [Z_{ikj} + (\Gamma_j \cdot z_{ij} / K_{kij} - Z_{ikj}) \cdot f_{ij}] - N_{kj \cdot ri} / (1 + P_{ij}), \quad (8)$$

where:  $Z_{ikj}$  - the cost of the  $i$ -th type of nutrient for crop formation  $k$ -th grade in the  $j$ -th conditions, kg / ha;  $Z_{ikj} = Y_{kj} \cdot z_{ikj}$ , where  $z_{ikj}$  - the removal of nutrients by the harvest of the  $k$ -th grade in  $j$ -th growing conditions per 1 quintal of grain and the corresponding amount of by-products, kg;  $\Gamma_j$  - resource-provided level of soil fertility in  $j$ -th conditions, q / ha; the expression  $N_{kj \cdot ri} / (1 + P_{ij})$  describes the amount of  $i$ -th nutrient that will come to 1 ha with organic fertilizers; where  $N_{kj}$  - the rate of application of organic fertilizer under the  $k$ -th grade in the  $j$ -th conditions, t / ha;  $r_i$  - content in 1 ton of organic fertilizer  $k$ -th type of nutrient, kg;  $f_{ij}$  - coefficient of unproductive losses of mineral nutrients in  $j$ -th conditions;  $P_{ij}$  - coefficient of unproductive losses of organic fertilizer;  $K_{kij}$  - utilization rate of the  $k$ -th grade of nutrient in the  $j$ -th conditions.

Coefficients  $z_{ij}, K_{kij}, r_i$  are determined experimentally or taken as normative for the respective production conditions.

The energy equivalent of mineral nutrient compensation doses ( $N, P_2O_5, K_2O$ ) per 1 ha ( $E_{B_2kj}$ ) is determined by the equation:

$$E_{B_2kj} = N_{Nkj}^1 \cdot V_N^1 + N_{P_2O_5kj}^1 \cdot V_{P_2O_5}^1 + N_{K_2O_{kj}}^1 \cdot V_{K_2O}^1, \quad (9)$$

where  $V^1$  is the energy equivalent of 1 kg of active substance ( $N, P_2O_5, K_2O$ ), MJ. The dose of mineral  $i$ -th type of fertilizer (q / ha) to ensure ( $N_{ikj}^1$ ) is calculated by the formula:

$$\tilde{N}_{ikj} = \sum_{i=1}^n N_{ikj} / r_q, \quad (10)$$

where - the content in 1 quintal  $q$ -th fertilizer  $i$ -th active substance, kg.

The total energy consumption for the application of mineral fertilizers ( $E_{B_2}$ ) is determined by the formula:

$$E_{B_2} = \sum_{i=1}^n E_{iB_2} \cdot \delta, \quad (11)$$

where:  $\sum_{i=1}^n E_{iB_2}$  - the amount of standard energy consumption for individual items of application of 1 ton of mineral fertilizers, MJ;  $\delta$  - coefficient of multiplicity of mineral fertilizers application ( $\tilde{N}_i$ ),  $\delta \geq 1$ .

The total energy consumption for the application of organic and mineral fertilizers is the sum of:

$$E_B = E_{B_1} + E_{B_2}. \quad (12)$$

The coefficient of transformation of solar energy into chemical ( $U_{Skj}$ ) reflects the part of photosynthetic active radiation of the sun ( $C_o$ ), which falls on 1 ha (GJ) and accumulates the yield ( $M_{Skj}$ ) - yield  $S$ -th products of the  $k$ -th grade in  $j$ -th conditions (q / ha), calculated by formula:

$$U_{Skj} = M_{Skj} \cdot V_{Skj} \cdot 100 / C_o, \quad (13)$$

where  $V_{Skj}$  - the energy equivalent of 1 c  $S$ -th products of the  $k$ -th grade in  $j$ -th conditions.

Additionally, an indicator of the specific total cost of non-renewable energy for the transformation of 1% of photosynthetic active radiation ( $Q$ ) is used, which is described by the equation:

$$Q_{Skj} = E_{Skj} \cdot C_o / M_{Skj} \cdot V_{Skj} \cdot 100, \quad (14)$$

where  $E_{Skj}$  - total energy consumption for production ( $M_{Skj}$ ) of main products, or main and by-products, GJ / ha.

The energy intensity of the production of a unit of use value ( $W_{Skj}$ ) of grain, fodder and fodder protein units, digestible protein is determined by the formula:

$$W_{Skj} = E_{Skj} / M_{Skj}. \quad (15)$$

The share of accumulated solar energy ( $U_{Skj}$ ) is calculated as a percentage by the

formula:

$$U_{skj} = (M_{skj} - V_{skj}) \cdot 100 / C_o, \quad (16)$$

where  $C_o$  - the amount of solar energy (PAR), GJ / ha. For comparison, in the Steppe zone per 1 ha there is 19.5 thousand GJ of physiologically active solar energy.

Energy efficiency of plant varieties is determined by the formula:

$$W_{skj} = M_{skj} / E_{skj}. \quad (17)$$

An additional indicator for determining the efficiency of total energy is the yield of  $S$ -th products per 1 ton of conventional fuel, which is calculated by the formula:

$$W_{skj} = M_{skj} / E_{skj} / 34. \quad (18)$$

Where  $M_{skj}$  and  $E_{skj}$  are defined in GJ.

There fore, the importance of organic and mineral fertilizers, especially in the humus balance of arable land, is fundamentally different. Increasing crop yields does not mean improving fertility and increasing humus in soils.

Maintaining and improving soil fertility, preventing its depletion, pollution by toxic substances, erosion, salinization, waterlogging becomes a guarantee of food security, increasing the welfare of the population and the cleanliness of the environment. The solution of genetic and production problems of soil science necessitates the comprehensive characterization of humus in soils, the content of which depends on water, nutrient, air, heat and biological regimes. For a number of reasons, over 100 years (1881–1991) the humus content in the soils of Ukraine has decreased from 4.2 to 3.2%, or almost a third, and over the last 5 years - by 0.04%, and this process continues. Currently, the stock of humus is 3.1%. In Ukraine, the balance of humus is negative and its annual deficit reaches 110 kg / ha. If this trend continues, in the near future Ukraine may find itself on the verge of humus "famine" - a serious environmental catastrophe [313, p. 110-125].

Studies have shown that in order to achieve a positive balance of humus in the soils of Polissya, it is necessary to apply at least 18–20 t/ha, Forest-steppe - 13–15 t/ha and Steppe - 10–12 t / ha of organic fertilizers annually. Subject to the introduction of 1 ton of good-quality rotted manure per hectare of area with a content of 4.4-5 kg of

nitrogen, 2.5 kg of phosphorus and about 6 kg of potassium, 42, 54 and 59 kg of humus are formed in the soils of these climatic zones, respectively. To maintain the required balance of humus, 320-340 million tons of organic fertilizers should be applied to the soil annually, 10-12 tons per hectare of arable land.

One of the most important diagnostic signs of soil degradation is a decrease in humus content. Intensive farming requires an increase in the application of mineral fertilizers, which causes its mineralization. At the same time, the applied fertilizers are not always used by plants with great efficiency. According to the International Institute for World Observations (USA), from 1985 to 1993 the yield of a ton of mineral fertilizers decreased from 9.1 to 1.8 tons of grain while increasing the number of pathogens [313].

As the phenomena of man-caused deformation of the environment have acquired a global scale, it becomes obvious that the achievements of mankind are largely due to environmental degradation, the use of production systems that are contrary to the laws of Nature. Thus, the increased use of agrochemicals, making a profit in agricultural production at any cost causes environmental pollution and soil depletion. Consumer attitude to land, violation of Art. 37 of the Law of Ukraine "On Land Protection" has negative consequences, accompanied by deterioration of soil quality and productivity [314].

Currently, both macro- and available forms of microelements are insufficient in soils. According to the National Scientific Center «Institute for Soil Science and Agrochemistry Research named after O.N. Sokolovsky», out of 32 million hectares of arable land in Ukraine, 56% have a low content of mobile zinc, 25% of mobile boron, 8% of mobile copper. Trace elements have a positive effect on the photosynthetic activity of plants, colloid-chemical properties of protoplasm and its water holding capacity, which increases the resistance of plants to drought. They are part of enzymes and vitamins and other physiologically active compounds. Deficiency of microelements worsens the processes of respiration, chlorophyll synthesis, the intensity of photosynthesis and carbohydrate metabolism of plants, their growth and development, the activity of enzyme systems, the content of DNA and RNA decreases.

Reducing the nutrient regime of the soil as a set of processes of nutrient supply, their transformation, and use by plants during the growing season, reduces the agro-technical potential of the land and its productivity.

Nutrients for plants are not only chemical elements, but also products of life of various soil microorganisms contained in the soil, process organic matter and mineral substance into a form acceptable to plants, provide them with everything they need, and increase soil fertility. The use of pesticides and herbicides to protect plants from pests (viruses, fungi, insects) and weeds suppresses the soil microflora, adversely affects the environment and the quality of crop products [315].

According to a study by Globe and Mail and CTV News, the content of vitamins and trace elements in fruits, vegetables and potatoes has decreased significantly over the past 50 years. Thus, the content of vitamin A in potatoes decreased by 100%, vitamin C - 57%, iron - 28%, calcium - by 28%. With a decrease in the dry matter content and weakening of the structure of its tissue, resistance to harmful microbes decreases, weight loss during storage increases by 50%. Similar results were obtained for 27 types of vegetables. Studies conducted in Germany show that pesticide residues are found in 75% of vegetables and fruits [314, p. 26–27]. Therefore, it is important to substantiate ecotoxicological and hygienic regulations for the use of pesticides that reduce or eliminate the risk of environmental pollution and crop and livestock products, strict compliance with the maximum allowable amounts of drugs (MAD) in products, soil, water, work area.

Poisoning of planting material of crops reduces the potential for seed germination. Accordingly, there is a need to use growth stimulants, which at the same time increases production costs. This technological measure can be avoided by processing the seeds in high voltage electric fields, which ensures its purification from diseases and pests, long-term storage, stimulation of biological processes in the grain before germination [316, p. 176].

Positive impact on the environment, plant development and yield increase is exerted by energy information factors, under the influence of which the infection of grain with the fungus is eliminated, the balance of linear growth of aboveground and

underground (root) parts of plants, such as peas of “Fargus”, “Phenomenon”, “Fundator”, “Petronium” varieties increases 1.5-2 times, as well as the amount of total protein in the green mass of plants increases by 10–30%, the activity of enzymes that ensure the growth and development of plants and the amount of chlorophyll (barley, rapeseed, alfalfa in the phase of 3-4 leaves). Studies have shown that the yield of barley under the influence of energy factors increased by 20%, the amount of protein in the grain - by 14%. The increase in yield of hybrid corn was 9%, and protein in grain - 18% [317 p. 25-33].

Human health is 50% dependent on lifestyle, 30% - on the environment, 10% - on genetic heredity and 10% - on treatment. Therefore, the problem of food safety in the world has become very acute. In 2002, at the World Summit in Johannesburg, the UN declared the rejection of agrochemicals until 2020, the use of which is a constant source of environmental pollution and threats to human health. At the same time, it is projected that by 2030 the global demand for food will increase by 60%.

Currently, the increase in agricultural production in economically developed countries by two thirds is due to improved production technologies, and one third - the genetic factor, the creation and introduction of new varieties and hybrids, high quality seeds. Many scientists around the world link the possibility of solving problems of increasing crop yields, avoiding losses during storage, improving the quality of plant products, reducing the environmental impact by reducing the use of pesticides, fertilizers, growth promoters and other industrial means using the results of genetic engineering, which replaced the traditional selection.

The formation of the market for genetically modified organisms (GMOs) and their use in agriculture makes it possible to solve a number of the most acute problems. Genetically modified plants are officially grown in more than 20 countries, and their sown area is growing every year. They have been tested, officially entered in the state registers of agricultural plants and allowed for commercial distribution. However, world science is not yet able to determine the safety of the use of genetically modified products for humans, especially with the results for future generations. There are concerns that in the process of realizing the positive potential of biotechnology and

genetic engineering, situations may arise with the production of genetically modified organisms and recombinant proteins with untested properties that have not been properly controlled. Negative consequences of genetic engineering experiments and biotechnological productions and for the personnel working on them are not excluded. It is believed that transgenes have the ability to alter metabolism and can promote the formation of toxic compounds. It has already been established that cattle encephalopathy is a consequence of feeding animals with genetically modified feeds [310, p. 46–48].

National legislation does not allow the cultivation of genetically modified plants in Ukraine. However, in the context of globalization of the world economy and imperfection of laboratory equipment for certification, the entry of genetically modified seeds and food products into the country is not excluded.

### CONCLUSIONS

The concept of acceptable development (consistent with the state of Nature and its laws of development) involves the formation of agricultural landscapes, where climate, water, soil, flora and fauna exist in a complex interaction and interdependence. However, humanity prefers to meet immediate needs without worrying about the future.

The current situation is characterized by the fact that scientific and technological progress deepens the crisis of the biosphere, dangerous changes in which lead to permanent loss of ability to compensate for adverse anthropogenic geophysical processes, depletion of non-renewable resources, narrowing biodiversity, reducing bioproductivity. Over the last 50 years, 75% of the world's genetic base has been lost.

## **12 Formation of investment attractiveness of agricultural enterprises**

Ensuring the effective and continuous development of agro-industrial enterprises due to the peculiarities of operation requires a stable investment of investment resources in order to expand reproduction and profit. Attracting investment resources is a necessary source of development of agricultural enterprises, which require renewal of fixed assets, technical re-equipment and introduction into the production process of innovative production methods and new technologies. Given the problem of limited own resources and the high cost of credit resources, investment is one and the main source of funding to ensure the development of agricultural enterprises. In this case, any investor primarily considers the object of investment from the point of view of its investment attractiveness, which shows the ability to maximize the economic effect with minimal investment risks.

Problems of formation of investment attractiveness of agrarian enterprises are studied by such scientists as: O. Borsuk [319], K. Voloshchuk [322], L. Volchanska [323], A. Haidutsky [324], M. Kysil [328], O. Lewandivsky [330], I. Okhrimenko [334], Yu. Stavskaya [336], G. Yatsyshyn [342] and many other researchers. At the same time, paying tribute to the scientific achievements of scientists, it should be noted the need to deepen the interpretation of the essence of investment attractiveness of agro-industrial enterprises and detailing the factors that shape it.

The investment attractiveness of agricultural enterprises is an indicator that allows potential investors to draw conclusions about the need and feasibility of investing in this object. To date, the economic literature has not developed a single approach to defining the essence of the concept of «investment attractiveness». It is widely believed among scientists that investment attractiveness should be considered vertically: country, region, industry, enterprise, investment project. At the same time, investment attractiveness is characterized by a combination of features, means, opportunities that together determine the potential effective demand for investment in the country, region, industry and so on.



Depending on the time horizon of analysis, management and forecasting, investment attractiveness can be current and promising [340]. We believe that this approach complicates the procedure of identifying attractiveness factors and their quantitative and qualitative assessment, as one or another investment object due to regional and sectoral characteristics, geographical location and other factors will have different investment attractiveness.

The investment attractiveness of the region is an objective prerequisite for investment and is quantified in the amount of capital investments that can be attracted to the region, based on the investment potential formed in it and the level of investment risks [332].

The investment attractiveness of the region is a virtual concept, as the desired does not always coincide with reality. Assessing the investment attractiveness of a region, rating agencies take into account not only the natural and productive potential, availability of labor and financial resources, but also obtained (usually through surveys) assessments of the political situation in the region, corruption of officials, judicial protection of entrepreneurship in the territory. , etc. Moreover, the opinions of respondents may be polar depending on their personal experience of interaction with government agencies.

For investors coming to the region, it is not declarative but real support that is important (especially at the stage of business formation), the level of competence of officials with whom the investor will have to deal, the predictability of actions of the authorities.

Thus, the concept of investment attractiveness of the region is considered as a set of many objective features, opportunities, means and limitations that determine the possibility of attracting investment to the region.

As noted by O. Brazhko, investment attractiveness in the general sense is an integral characteristic, sufficient socio-economic, organizational and legal, moral and psychological and socio-political interest of the investment entity to invest in one or another object [321, p. 18]. Thus, the investment attractiveness of the region is a cumulative characteristic of individual territories in terms of investment climate, level

of investment infrastructure development, opportunities to attract financial resources that significantly affect the formation of profitability of investment funds and investment risks.

The above allows us to conclude that the concept of «investment attractiveness» means the presence of such investment conditions that affect the preferences of the investor in choosing a particular object of investment. The object of investment may be a separate project, the enterprise as a whole, city, region, region, country.

According to V. Hobt, the investment attractiveness of the enterprise as an object of investment is an important indicator, which should be understood as its integral characteristics in terms of current status, development opportunities, volumes and prospects of profit and distribution, liquidity, solvency, financial stability business activity and profitability. It combines data on the degree of expected return, risk and liquidity of potential investment [340, p. 322].

The investment attractiveness of the enterprise is formed on several levels. This is the level of the state, region, industry and the enterprise itself. Which of the defined levels is dominant in terms of impact on investment attractiveness and which is less important is extremely difficult to establish.

From the hierarchical point of view, the factors that form the state component of investment attractiveness are the highest. It is followed by factors that determine the attractiveness of the region and the industry, which is hierarchically at the same level as the region. The lower level is formed by factors of investment attractiveness of the enterprise.

There are absolute investment attractiveness and comparative investment attractiveness of the region, industry (the latter involves comparison with indicators of investment attractiveness of other regions, industries).

The investment attractiveness of the country is formed by large consulting companies or specialized government agencies. In determining the investment attractiveness, the main attention is paid to the role of the enterprise in preserving and economic development of the country's potential, ensuring technological and economic security of the country, achieving the priorities of world scientific and technological

development, etc.

Assessment of investment attractiveness of the enterprise at the regional level is carried out by territorial public authorities and, accordingly, its criteria are: the company's place in the regional market, impact on socio-economic development of the region, the attitude of territorial public authorities to the object. This assessment allows to form an effective regional investment policy [319, p. 71]. Investors are usually regional government agencies or large financial and credit companies that attract investors through government guarantees.

The investment attractiveness of enterprises at the industry level is determined by the need to separate industry enterprises capable of independently carrying out the reproduction process from enterprises that require subsidies from the state or preferential lending for production renewal processes. This characteristic allows you to build an investment strategy for the industry.

Thus, each object of the investment market has its own investment attractiveness. The investment attractiveness of the enterprise, in addition to its own potential, is formed under the influence of industry, region and country. In turn, the set of enterprises forms an industry that affects the investment attractiveness of the whole region, and the attractiveness of the regions forms the attractiveness of the country (Fig. 1).

In addition, it should be noted that investment attractiveness is inextricably linked to investment risk and is shared in determining the rating of a country, region, industry, enterprise and investment project.

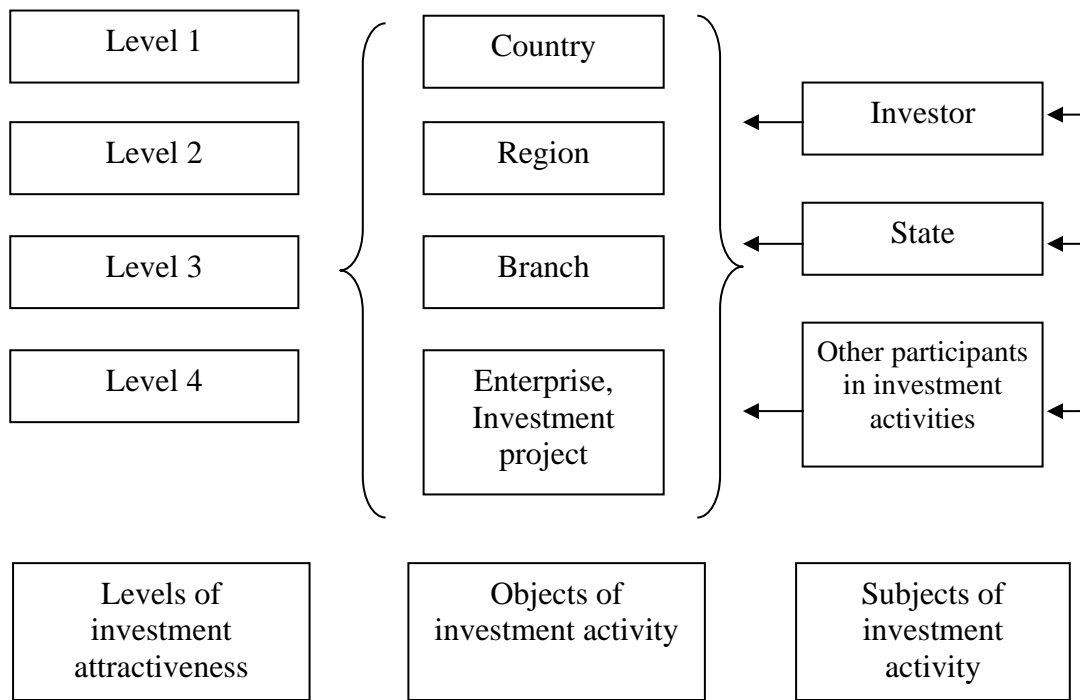


Figure 1. Multilevel assessment of investment attractiveness

Source: compiled by the author for [320; 321; 332]

In Fig. 2 presents indicators that, in our opinion, characterize the investment attractiveness of both the region and the individual enterprise.

The development of agricultural enterprises directly depends on the formation of investment attractiveness of the sector with the participation of the state. To improve the investment attractiveness of agricultural enterprises at the national level, the following measures can be proposed:

- to improve the regulatory framework governing economic relations in the agricultural sector;
- take measures to achieve political stability in the country;
- create an appropriate level of investment attractiveness at the national level;
- ensure the stability of the national currency;
- create favorable conditions for the effective development of agricultural lending and leasing activities;
- to create a favorable fiscal environment for business entities;
- to ensure equal conditions for doing business for all participants in economic relations;

- to create a state system of investment risk insurance;
- to ensure the conduct of a balanced environmental policy.

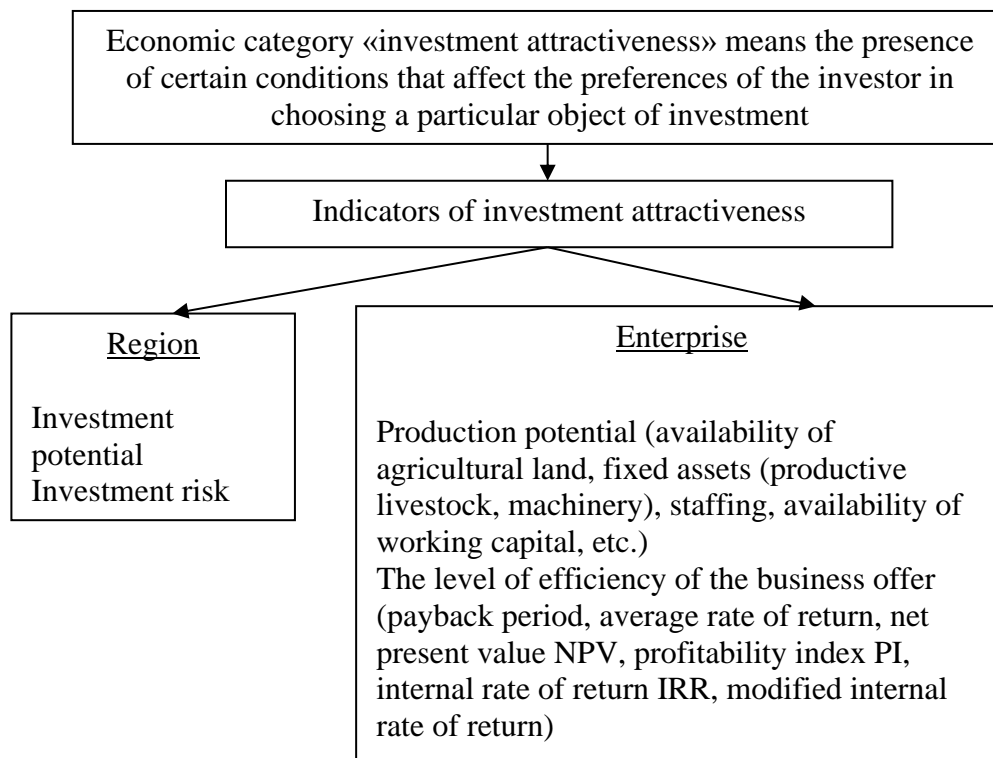


Figure 2. Indicators of investment attractiveness of the region and the enterprise

Source: compiled by the author for [321; 323; 332]

Investment attractiveness at the regional level is formed under the influence of certain factors. The main regional factors influencing the investment attractiveness of agricultural enterprises are: the availability of skilled labor in the region; geographical location and climatic conditions; natural conditions and land fertility; logistics infrastructure.

Taking into account the factors influencing the formation of the level of investment attractiveness of agricultural enterprises at the regional level and the main measures to improve the investment environment at the national level, we can identify the main factors influencing the improvement of investment attractive image of agricultural enterprises (Fig. 3).

The above factors should be divided into two groups, namely:

- external – have the same impact on all agricultural enterprises;

– internal – depend on the specifics of the enterprise.

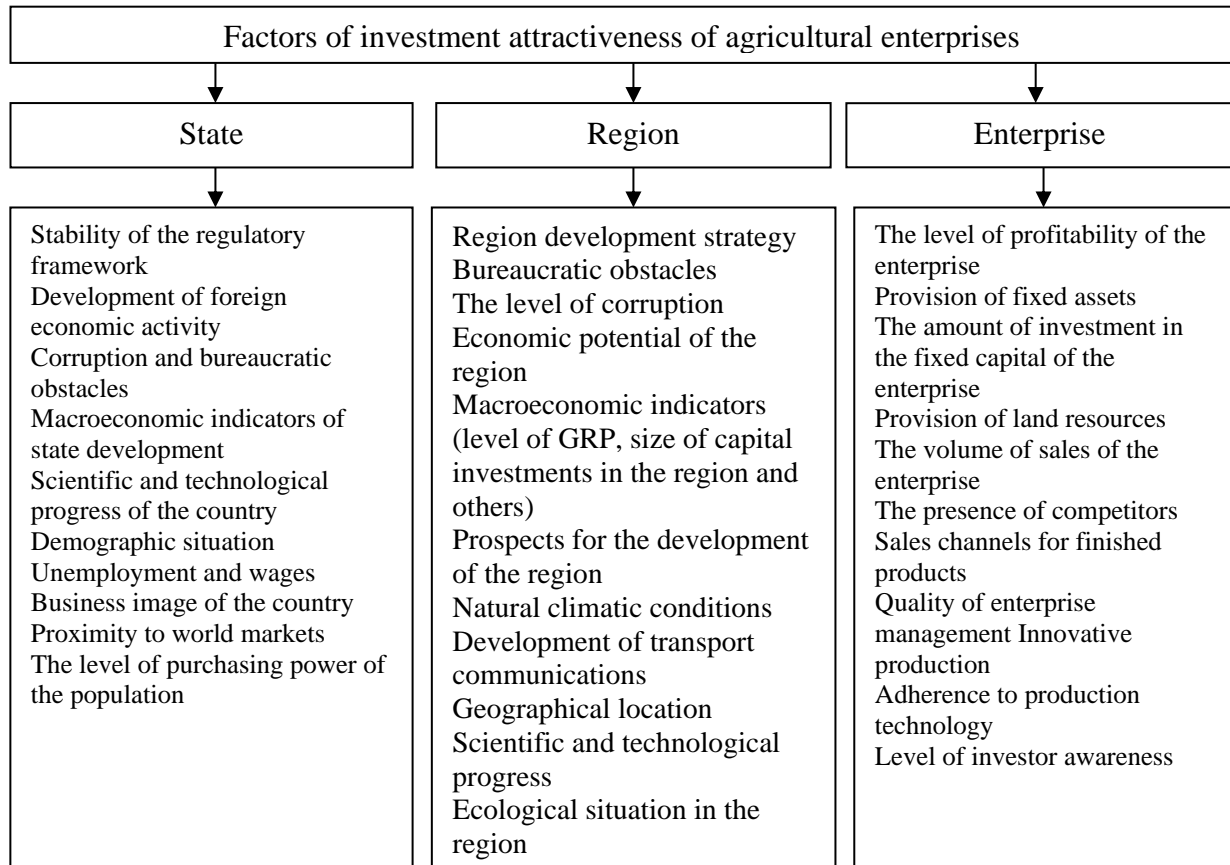


Figure 3. Factors affecting the investment attractiveness of agricultural enterprises

Source: summarized by the author for [319; 335; 342]

The formation of internal environment factors is influenced by the founders and management of the agricultural enterprise, which determines the main aspects of activity (pricing policy is formed, market entry strategy is chosen, innovative methods of production and technologies are sought and implemented, depreciation policy is formed, etc.).

In addition, the formed structural subdivisions of the agricultural enterprise have an impact. The activity of such subdivisions as elements of the whole influences its development, in addition, the employees of the enterprise, their qualification level, working conditions, psychological climate in the team, etc. influence.

The formation of environmental factors is influenced by: the state (regulatory and legal support for the development of agricultural enterprises, fiscal policy, the level

of liberalization of foreign economic policy, etc.), the development of the region in which the development and operation of agricultural enterprises. In particular, local governments and local authorities have a special influence, which directly forms the development environment for agricultural enterprises and other business entities.

The level of interest of these structures in the development of entrepreneurship, opportunities for infrastructure development, the formation of cluster associations provides the appropriate results and conditions for agricultural enterprises. Ensuring the conditions of development is also formed by the market of agricultural products, the labor market and so on. The level of development and conditions of cooperation with suppliers and sales organizations have a direct impact on the development of the agricultural enterprise.

The investment attractiveness of a commodity producer is considered to correspond to certain characteristics of its financial and property status and production and economic potential to the existing interests of potential investors. However, currently, the principles of taking such interests into account in the evaluation process are not defined, which does not specify the evaluation technology and complicates the determination of the attractiveness of the agricultural enterprise by investors and inhibits the development of investment processes in the agricultural sector [4].

Considering the factors influencing investment attractiveness at different levels, we consider that all levels are closely interrelated and, accordingly, an economic entity in the agricultural sector can not be investment attractive to the investor if the region or state is not attractive for investment in such a sector economy, in particular for foreign investors (Fig. 4).

It is advisable to assess the investment attractiveness of agricultural enterprises on the basis of generalization of results and development of evaluation matrices (Fig. 5).

Assessing the image of agricultural enterprises at the micro level with the creation of an electronic database will allow to compare all enterprises with each other, which will encourage the latter to improve their own investment attractiveness and the image of the business structure.

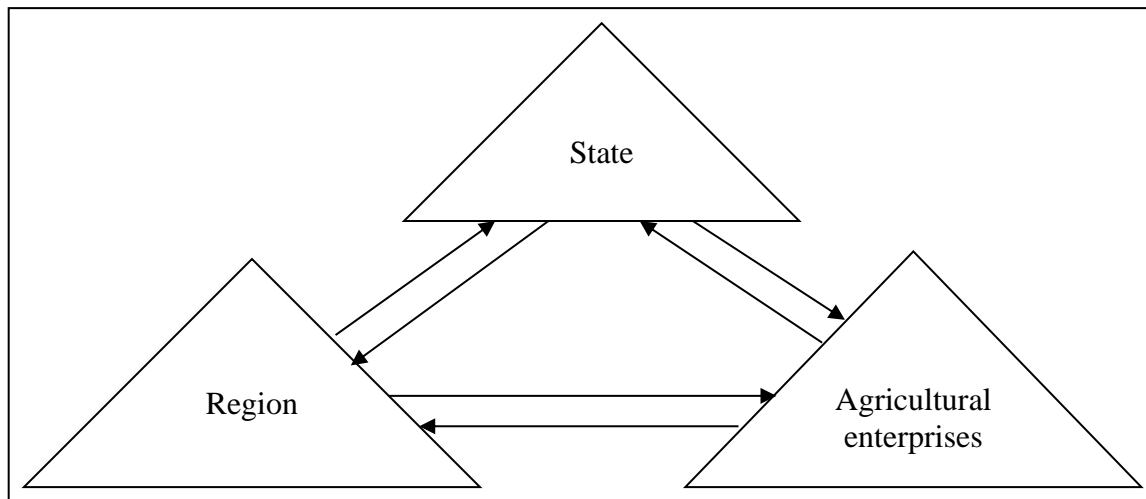


Figure 4. Interdependence of investment attractiveness of agricultural enterprises at different levels

Source: summarized by the author for [322; 329; 341]

The electronic system will serve as an information panel for potential investors, insurance companies, banking and leasing structures. Such an information panel is necessary to determine the real state of affairs in the enterprise and the possibilities of its further development, which will facilitate the possible investment or lending and change the image of the entity.

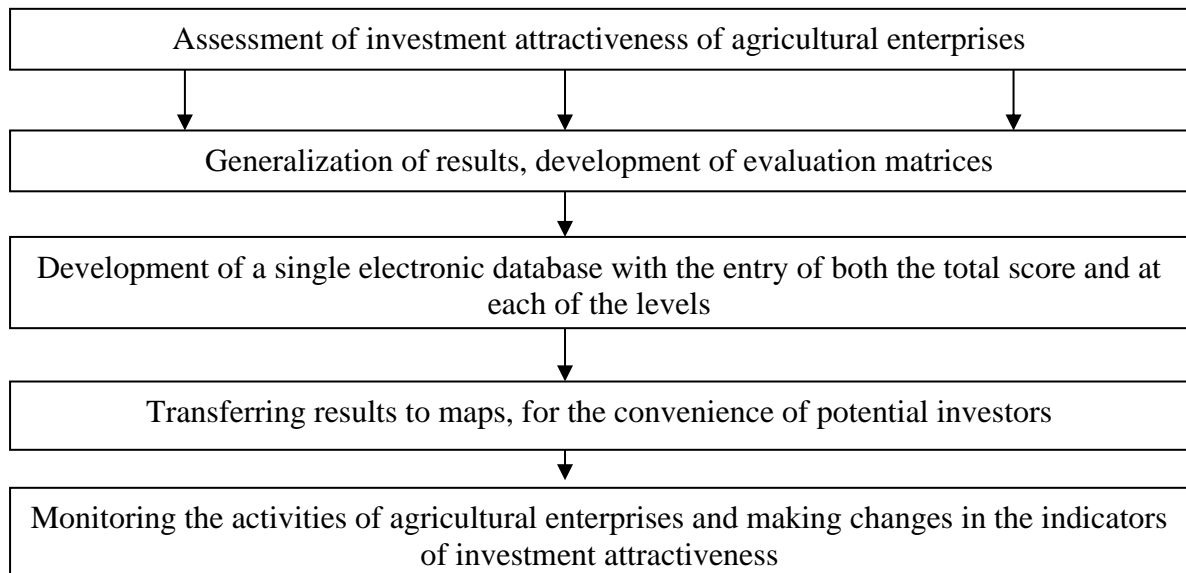


Figure 5. Scheme for assessing the investment attractiveness of agricultural enterprises in the region

Source: summarized by the author for [321; 323; 334]



Identification of key factors influencing the formation of investment attractiveness of agricultural enterprises and the establishment of relationships between different levels made it possible to model the mechanism of stimulating investment processes in agricultural enterprises (Fig. 6).

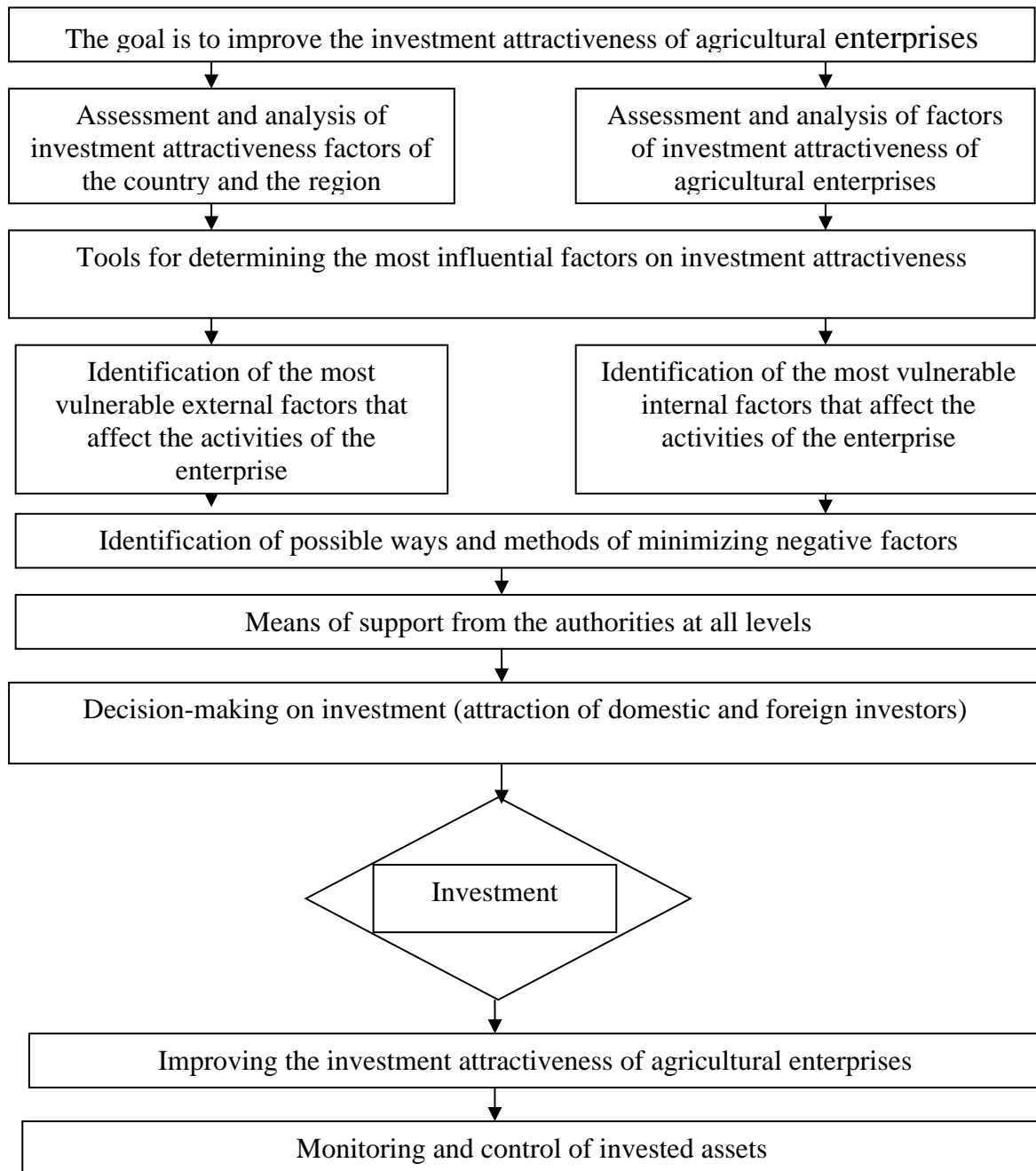


Figure 6. The mechanism of stimulation of investment processes in the agricultural enterprises

Source: compiled by the author for [318; 322; 337]

The mechanism of stimulating investment processes in agricultural enterprises is aimed primarily at attracting potential investors to participate in their development.

Different factors will not have the same impact in different types of economic activity, so a potential investor will need to determine the most influential factors on the investment attractiveness of a particular agricultural enterprise in which he is willing to invest financial resources [318; 322].

Improving the mechanism of stimulating investment processes in agricultural enterprises is based on tools that determine the assessment of the most influential factors of investment attractiveness and possible methods of minimizing negative factors, means of supporting the authorities at all levels, which will attract both domestic and foreign investors in agricultural production.

Low investment activity in the agricultural sector of the economy has serious internal reasons that make inefficient investment in the manufacturing sector.

In order for investments to become profitable, inflation must be minimized; unlock the financial resources of agricultural enterprises – working capital, depreciation, profits; to develop a phased system of state protectionism aimed at supporting and developing the infrastructural sectors of the economy, production with high technologies and technologies that ensure the competitiveness of domestic agricultural products on the world market.

The revival of the investment process in the agro-industrial complex should take place primarily at the expense of domestic resources, and foreign investment should be given only a secondary role due to the small volume and low mobility. The level of investment attractiveness of agro-industrial enterprises is still insufficient. Thus, the main threats to investors are the high level of investment risks in agricultural enterprises.

One of the ways to increase the investment attractiveness of agricultural enterprises is to improve and enhance the conditions of bank lending. At present, obtaining credit funds by agricultural enterprises, in particular small and medium-sized enterprises, is practically impossible due to:

- high interest rates on loans;

- lack of mortgaged property due to physical and moral deterioration of equipment and unsatisfactory condition of real estate in agricultural enterprises;
- low value of real estate due to its significant distance from regional centers;
- lack of business plans in agricultural enterprises;
- shortage of real tools for assessing the creditworthiness of agricultural enterprises [327; 331; 338; 339].

It should be noted that loans to agricultural enterprises in Ukraine are provided by 82 financial and credit structures. In the banking system there is a significant number of credit products, the most acceptable for agricultural enterprises are:

- agro-leasing (the advantages of which are longer loan terms, leasing fee is lower than interest rates);
- factoring (providing business entities with real money, accelerating capital turnover);
- forfeiting (convenient office work, fixed rate);
- agricultural receipts (loan is secured by collateral).

The difference between leasing and ordinary bank loans is that they provide property, so leasing can be defined as a form of property loan. This lending system will bring to a new level of scientific and technical equipment of agricultural enterprises, which will reduce the cost of agricultural products and improve the investment attractiveness of agricultural production. The main prerequisite for the development of leasing is the state guarantees for the maintenance of machinery or equipment and the payment of interest, in case the borrower fails to fulfill its obligations, machinery or equipment can always be resold.

Forfeiting (purchase of promissory notes or other debt obligations) is a new type of credit relations in Ukraine and for its use first of all it is necessary to develop and adopt normative-legal legislation.

The use of forfeiting services for agricultural enterprises has disadvantages, namely:

- in relation to the exporter:
  - high cost of services;

- providing the service with a guarantee of 2 parties.

in relation to the forfeiter:

- ensuring the risks to the payment of the bill;
- no right of recourse in case of non-payment of the debt;
- knowledge of the legislation of the importing country.

For agricultural exporting companies, forfaiting is a new credit resource, so the regulatory framework for it is not yet fully regulated. Forfaiting as a type of investment of financial resources in agricultural enterprises at low interest rates (5-7%) in a short period of time can become the main form of investment in agricultural production.

Agricultural receipts – a receipt CPR (Cedula de Producto Rural), which can be considered as a certificate for agricultural products, and which is certified as collateral for the financial resources received. The application of this method of obtaining financial resources will provide a number of advantages to agricultural enterprises:

- receiving additional funds through the pledge of the future harvest;
- increasing the level of trust in agricultural enterprises;
- providing non-financial guarantees to grain traders;
- ensuring competitive positions in the agricultural market;
- reduction of risks of both financial and non-financial nature.

Another type of lending to agricultural enterprises is factoring, which involves the payment of supplies with deferred payment for goods. When factoring, the risks of deferred payments are insured and receivables are managed. Factoring services can create new opportunities for medium and small agricultural enterprises, which will have a positive impact on their investment attractiveness. However, the use of factoring has disadvantages. Currently, there are a number of problems inherent in this market of financial services, including:

- differences in the legal framework for determining factoring and value added tax on transactions for the provision of factoring services, as well as the regulation of standards for the provision of the above services;
- lack of a network of institutions that would provide this type of service;

- high cost of this type of services, which creates conditions under which small companies do not have the opportunity to enter the market for factoring services;
- use by banking institutions of identical schemes for assessing credit recipients and factoring clients;
- lack of quality standards for factoring services;
- a significant percentage of debt assignment, in Ukraine the tariff for factoring financing is on average 25%, while in Western countries it ranges from 1,5 to 2%.

Having considered the main problems of providing factoring services in Ukraine, it is advisable to take the following measures to improve its implementation:

- improve the regulatory framework for financial institutions to provide factoring services;
- to approve at the legislative level the possible interest rates for the transfer of credit funds;
- to create a single register of institutions that provide factoring services and recipients of this resource, with the introduction of information about them and determine the rating of their integrity;
- develop a system for assessing the risks of factoring services.

One of the most effective ways to create investment attractiveness of agricultural enterprises by co-financing them with credit resources is to create a specialized state financial and credit institution, which will provide various financial assistance to agricultural producers. Also, with the creation of a financial institution, it is advisable to lift the moratorium on land sales.

To create this type of institution, it is necessary to regulate the relationship of such financial institution with the State Land Agency in the ownership of land transferred to the financial institution in case of default by the borrower (the Land Code states that agricultural land owned by the state State Agency of Land Resources).

Financing of such financial and credit institution should come from the State budget, additional funds may be external funds, financial resources received from the sale of agricultural land, which became the property of the institution for non-payment of loans, the issue of bonds of such financial institution. The activities of the structure

should contribute to the formation of investment attractiveness of agricultural enterprises and improve the financial position of agricultural entities.

It is envisaged that the main financial products of a specialized credit institution may be:

- seasonal loans;
- investment loans;
- leasing of agricultural equipment and machinery;
- long-term loans for 4–6 years.

Thus, we can say that the formation of investment potential of agricultural enterprises directly depends on their financial capacity. And if agricultural holdings have the opportunity to attract additional funds for their own economic activities, then medium and small agricultural enterprises do not have such an opportunity. Therefore, central authorities need to take all measures to ensure, through financial and regulatory instruments, to cover temporary gaps in medium and small enterprises, which in most cases are related to the seasonality of production.

Significant obstacles to the formation of investment attractiveness of agricultural enterprises and, accordingly, obtaining investment resources are the lack of a mandatory insurance market and the imperfection of the market infrastructure. Therefore, the formation of a positive investment image of agricultural enterprises requires progressive changes in financial policy.

In order to identify the specifics of investment behavior of different groups of institutional entities in Vinnytsia region, we examine the sustainability of capital investments in the agricultural sector of the region (Table 1).

Quantitative criteria for the sustainability of investment behavior are indicators of variability, which are based on the calculation of the value of the minimum ( $V_1$ ) and the coefficient of variation ( $V_2$ ).

The first criterion is calculated by the formula:

$$V_1 = (K_{\max} - K_{\min}) / (K_{\max} + K_{\min}), \quad (1)$$

де  $V_1$  – indicator of variability on the basis of the minimax criterion;

$K_{max}$  – the maximum value of the variable feature;

$K_{min}$  – the minimum value of the variable feature.

Table 1. Variability of the share of sources of financing in the total amount of capital investments in agriculture of Vinnytsia region

According to funding sources	The maximum value of the share	The minimum value of the share	Variability	
			$v_1$	$v_2$
State budget funds	0,013	0	1	0,131094
Funds from local budgets	0,02	0	1	0,253374
Own funds of enterprises and organizations	94,51	84,87	0,0537	0,043857
Funds of foreign investors	–	–	–	–
Investment funds	0,79	0	1	0,236245
Bank loans and other loans	8,19	5,06	0,2362	0,196583
Other sources of funding	8,67	0	1	0,075036

Source: calculated by the author for [325; 326]

The minimax criterion indicates a high variability of the trait (discrepancy in expert assessments) at a value exceeding 0.5. A value of the minimax ratio less than 0.5 indicates the consistency of the investment process in the amount of one source of investment financing.

The second criterion – the coefficient of variation is calculated by the formula:

$$V_2 = \partial / K, \quad (2)$$

де  $V_2$  – coefficient of variation;

$\partial$  – standard deviation of a variable sign;

$K$  – mathematical expectation of a variable sign.

Based on the minimax criterion (Table 1), the stability of investment behavior is demonstrated by agricultural enterprises and organizations and financial institutions. The investment behavior of the state, investment funds and other sources of financing can be considered volatile. However, due to the small size of the share of capital investments at the expense of state and local budgets, there is a possibility of

misinterpretation of the minimax coefficient and as a result of a second-order error. Therefore, we believe that the conclusion about the sustainability / impermanence of investment behavior of local governments and the government is preliminary.

Analyzing the coefficient of variation, we see that the behavior of all groups of investors listed in Table 1 is constant. In all cases, fluctuations in the share of individual sources of funding in total capital investment in agriculture are low-variability, ie indicators are independent of the influence of random factors. In other words, for the period of 2013-2020 in the agriculture of Vinnytsia region there is a lack of structural changes in the ratio of sources of financing of capital investments.

The stability of the structure in the ratio of sources of funding for the agricultural sector of the region shows that:

– first, in the direction of adaptation to changes in the economy, the investment behavior of institutional groups is either neutral or adapted, and the nature of investment behavior is equally manifested in all sources of capital investment, because otherwise there would be structural changes in the volume of investment sources. Given the strategic goals of each institutional group, it can be concluded that only the behavior of agricultural enterprises demonstrates the behavior of a rational economic agent who adapts to foreign neutral investment policy, sharing the burden of financing capital investments of almost 95%. Therefore, most likely the investment behavior of different groups of investment entities is neutral, and only agricultural producers – adapted;

– secondly, the behavior of investment entities in 2013-2020 was not volatile, but on the contrary, remained stable, due to the fact that fluctuations in the structural ratio of sources of investment financing would be more pronounced and there were occasional significant deviations in the share of individual sources of financing in the total scale of capital investment. In other words, the investment activity of Vinnytsia region is characterized by low ability to structural changes in the distribution of the burden of financing capital investments in the agricultural sector of the region, which indicates a lack of sufficient structural dynamics of the investment process.



Sustainability of investments is the restraining reason for the development of agricultural production in Vinnytsia region.

The main disadvantage of the existing investment activity in the field of agriculture of Vinnytsia region is the direction of financial resources, mainly not to support innovative areas, but to improve the basic production indicators of agricultural enterprises. The introduction of new energy-saving technologies, improvement of mechanization and automation of agricultural work, professional development of staff, etc. remain outside the financial interest of farmers. Scientific and technical developments in the Vinnytsia region for the period 2013-2019 have virtually no functional connection with capital investment in agriculture.

The regression equation took the following form:

$$I_{STR} = 18252,4 + 0,0377x_i, \quad (3)$$

де  $I_{STR}$  – the size of scientific and technical developments in the region;

$x_i$  – the amount of capital investment in agriculture, hunting and related services in the region.

The correlation coefficient in this regard was only 0,22, which shows the dependence of innovation on agricultural capital investment by only 4,9%. The risk of investing in research and development, the risk of a period of gap between investment and the result, the subjective factor of fear of innovation do not interest farmers to invest in the innovative development of the agricultural sector. This leads to low investment attractiveness of innovative aspects of agricultural production in the region. Looking at the current trend of financing scientific and technical developments, the probability of implementation and implementation of these projects in the agricultural business is unlikely. Under such financing conditions, innovative technologies for the agricultural sector are hardly developed.

UAH 3.98 billion was attracted to agriculture in Vinnytsia region in 2020. capital investment (Table 2).

Table 2. Capital investments by types of economic activity in Vinnytsia region, 2016-2020, thousand UAH

	2016	2017	2018	2019	2020
Agriculture, forestry and fisheries	2194797	3370792	4627569	4803383	3982600
incl. agriculture, hunting and related services	2143245	3327299	4576192	4735532	3947633
Total	7372954	8301879	11744065	17626523	15724889

Source: compiled by the author for [326]

In 2020, the agro-industrial complex of Vinnytsia region completed 25 investment projects, including 4 projects in the livestock sector, 10 projects to expand the infrastructure of agricultural storage, 6 projects in the food and processing industry and 5 other projects in the agricultural sector.

The implementation of 64 investment projects continues, including 33 projects to expand the infrastructure of agricultural storage (elevators, granaries, vegetable and fruit storages), 15 – in the food and processing industries, 12 – others in the agricultural sector, 3 – in animal husbandry [326].

Capital investment in agriculture is currently insufficient. The reasons for insufficient capital investment of agro-industrial enterprises of Vinnytsia region are that during the analyzed period investments in agriculture of the region were mostly private, and, unlike other industries, investment activities in the agricultural sector received less state support. At the same time, having a lack of own funds in the sources of investment financing, agricultural enterprises attract less than required borrowed funds, which have a high cost for them, which leads to slowing down the growth of investment in the agricultural sector.

At the same time, the existing reproductive structure of investments can positively affect the age structure of fixed assets and the technical level of production, and the reduction of the «active» part of fixed assets in the structure of capital investments can lead to negative changes in the technical structure of capital accumulation. It can be predicted that if the current trends continue in the coming years, the value of fixed assets of agriculture will decrease, which is completely unacceptable for the development of agricultural business in the region.

Thus, the assessment of the state of investment activity of agricultural enterprises of Vinnytsia region under modern conditions of agricultural reproduction shows that currently it does not contribute to the development of the agricultural sector. However, agriculture in Vinnytsia region has a high potential, which is manifested in the stabilization of the financial condition of agricultural enterprises in the region and ensuring their growth in production. All this, with a sufficient level of state support, will provide conditions for the effective realization of agar potential.

The use of venture financing is an actual and very important way for agro-industrial enterprises to attract the necessary financial resources.

Examples of areas of investment by venture funds of agricultural enterprises are presented in Fig. 7.

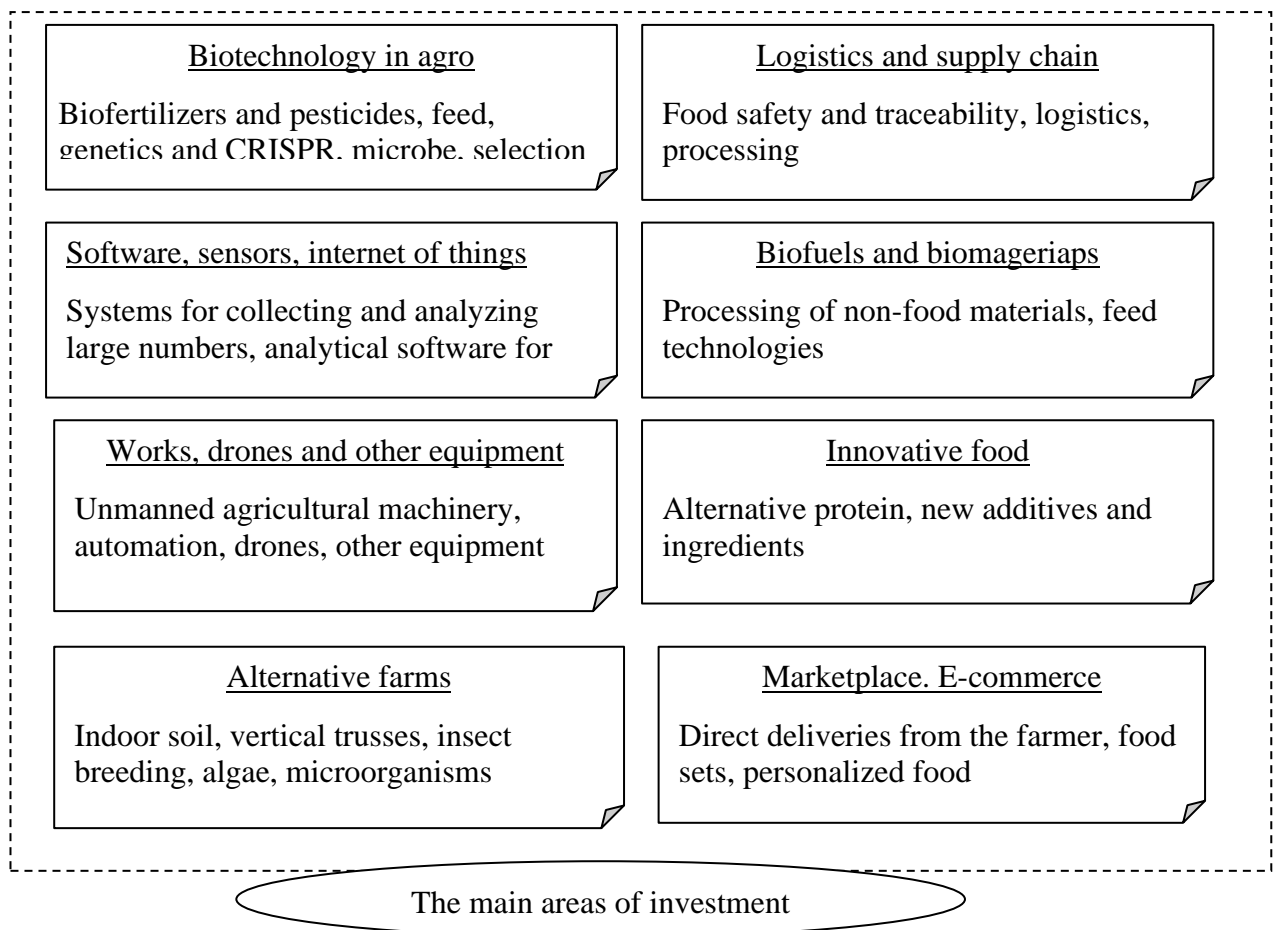


Figure 7. Key areas of investment by venture funds of agricultural enterprises

Venture fund assets can be formed entirely of funds, real estate, corporate rights and securities not admitted to trading on the stock exchange, or securities that have not

been assigned a rating in accordance with applicable law. Venture fund assets may also include debt obligations, such as mortgages, promissory notes, loan agreements and other means in accordance with applicable law. In this case, loans from the venture fund may be provided only to legal entities in which such a venture fund is a participant. Also, keep in mind that such funds are managed by an asset management company. Thus, we can conclude that the main advantage of venture capital funds for investment purposes is less over-regulation in the composition and structure of their assets.

It is worth emphasizing that today venture funds are practically not limited in their ability to invest in agricultural companies. On the other hand, it is impossible for the fund to invest in the corporate rights of farms and leased agricultural enterprises, as only citizens can be members of farms, and privately leased agricultural enterprises are unitary enterprises and cannot cede shares in equity.

Venture funds solve problems of both investment and other non-core issues. First of all, the venture fund offers a comprehensive solution to the problems of consolidation and centralized asset management, as well as the extensive and effective use of tax benefits.

An important advantage of venture funds in terms of use for the needs of the agricultural sector is the possibility of applying tax benefits on joint investment operations, as only the distribution of CII profits, the payment of dividends, is subject to taxation. In turn, investors - legal entities, will receive income, include it in the financial result, and tax profits at a rate of 18% and only then will be able to pay dividends to founding individuals with a tax of 6.5% (5% tax on income of individuals and 1.5% of the military tax).

The creation of a regional venture fund in the agricultural sector can be a catalyst for innovation activity of the entire innovation and investment system (Fig. 8).

The capital accumulated in the fund should be formed, first of all, at the expense of regional budgets, financial resources of highly concentrated, vertically integrated agricultural enterprises, including holding type and other interested investors.

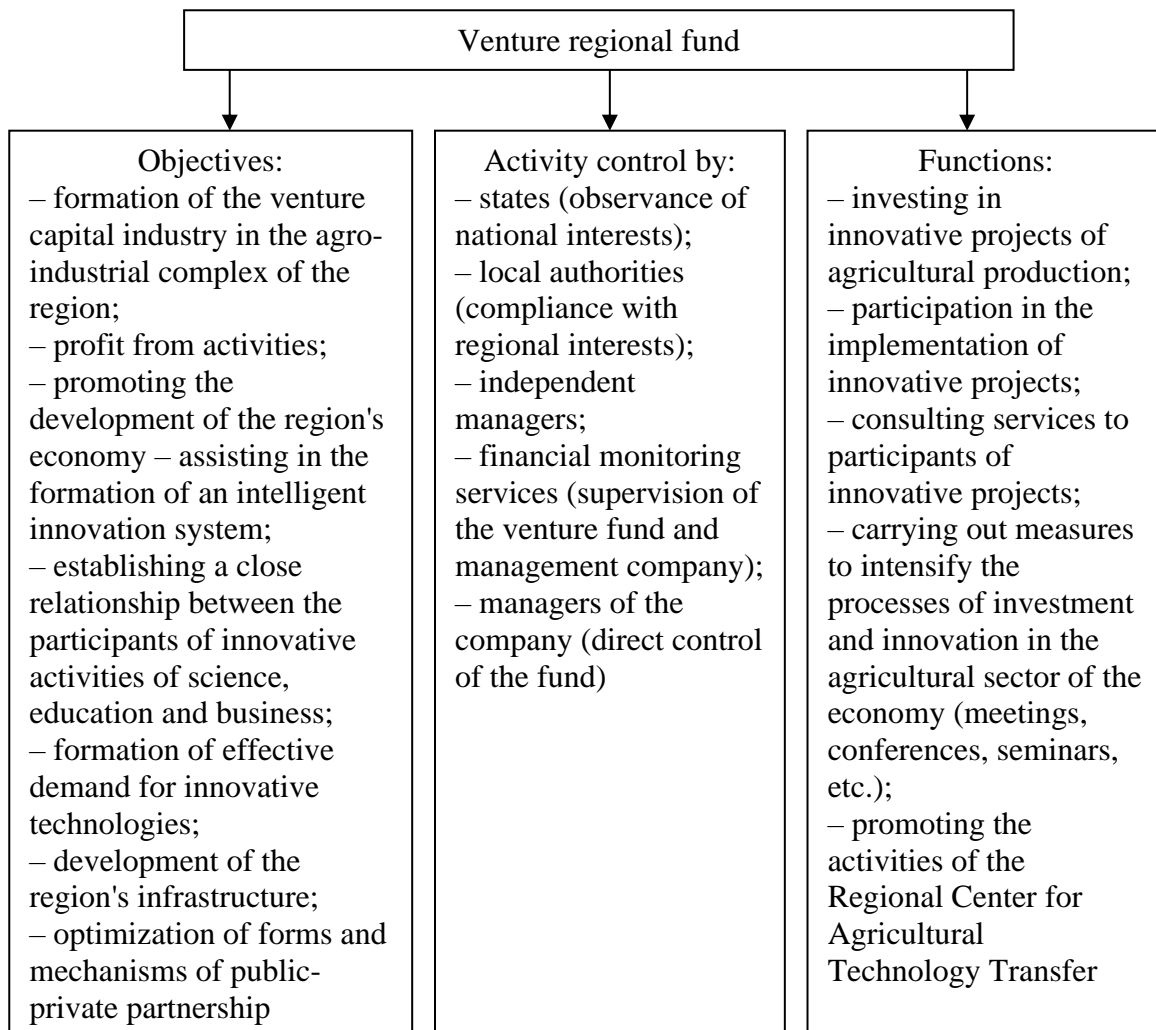


Figure 8. Model of regional venture fund in the agricultural sector of the economy

It is advisable to create a venture fund in the form of a closed-end mutual investment fund. We believe that in the agricultural sector of Vinnytsia region it is advisable to introduce a venture fund model, which should be based on the following provisions: targeted nature of investment (investment financing only in innovative companies); the dependence of investment on the stage of development of an innovative company (at least 80% of the funds must be invested in innovative companies at the initial stage); diversified investment principle (objects of investment must be at least 8 innovative companies in 5 years); restriction of investment areas (investment ban on traditional sectors of the economy and inconsistent with the regulatory framework); limitation of the total remuneration of venture fund participants

(management company, specialized depository, registrar of investment unit owners, auditor, appraiser together may claim a remuneration not exceeding 2.5% of the value of the fund's assets).

One of the important methods of ensuring the development of agricultural production and improving the investment attractiveness of agricultural enterprises is a cluster association. As part of the creation of agricultural clusters, agricultural enterprises will increase their own competitiveness, which in turn will lead to the formation of new businesses within the association. Agro-industrial clusters are essentially high-tech entities with a closed production cycle and a high level of added value in the final product, contribute to the creation of new jobs of different qualifications, development of social and industrial infrastructure in rural areas. The association of enterprises into a cluster is voluntary with equal participation in this association of all participants. Under ideal conditions, the agro-industrial cluster association will include agricultural producers, processing enterprises, final sellers of products, financial and credit and scientific institutions (Fig. 9).

The formation of agro-industrial clusters involves in most cases a full life cycle from the production of agricultural raw materials to its final processing and sale. According to Fig. 9 each subject of the cluster formation will perform a clear function assigned to it, receiving the maximum benefit from it. Profits will be distributed on the principle of proportionality of expenses incurred.

We propose to form an agro-industrial cluster in the Vinnytsia region in 10 main stages: identification of problems of agricultural enterprises (unprofitable, lack of profitable relations with partners), the solution of which alone will lead to significant financial losses in the agricultural enterprise; decision-making on the formation of the cluster and identification of its potential members; conducting negotiations with potential partners on the formation of an agro-industrial cluster; determination of the business structure around which the association (cluster leader) will be formed (in agro-industrial clusters the leader is most often agro-processing enterprises); identification of common problems of partners; formation of the plan of activity in cluster formation; registration of cluster formation; development of a strategic action plan; improving the

efficiency of agricultural production; increasing the investment attractiveness of all members of the cluster association and in particular agricultural enterprises.

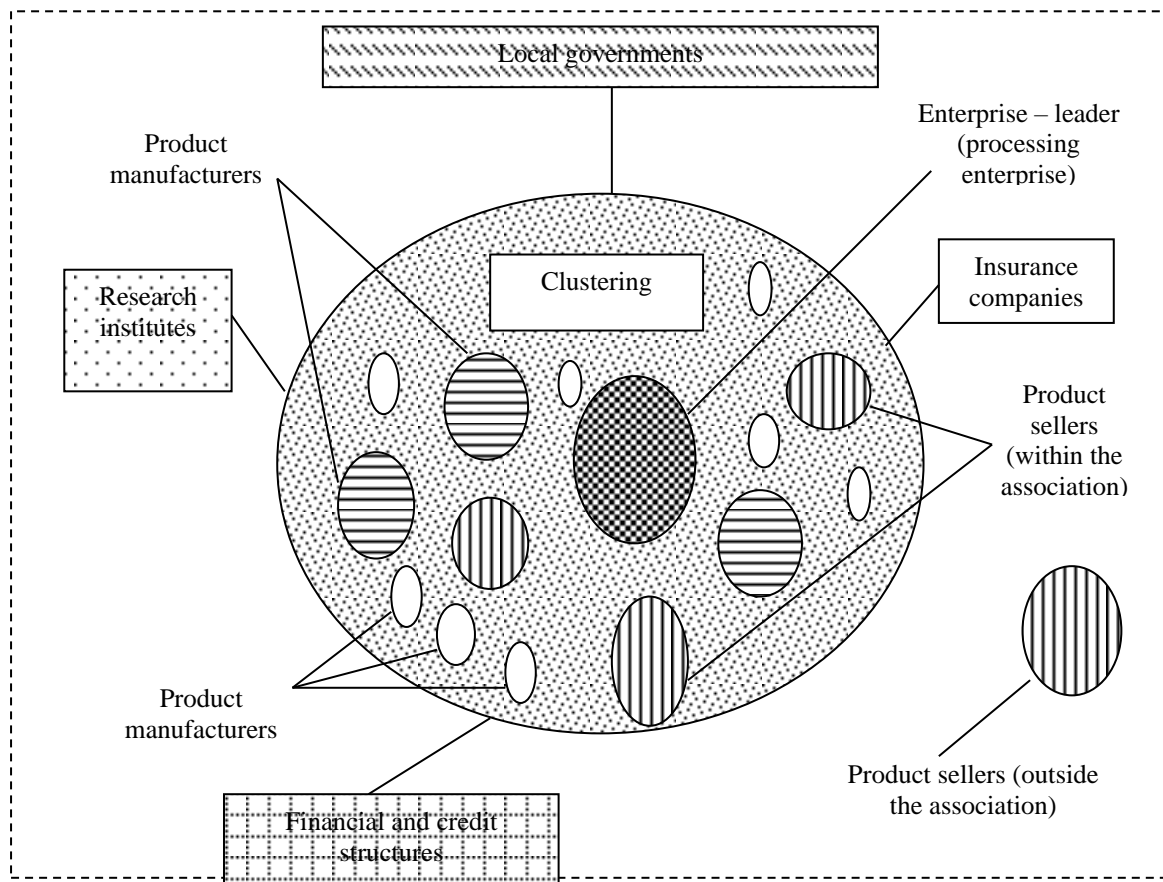


Figure 9. Model of agro-industrial cluster formation in the region

Source: compiled by the author for [333; 342]

According to the model of agro-industrial cluster formation, the initiating enterprise (processing enterprise) will be the core of this association. The leading enterprise should be the most attractive for investment both in the middle of the cluster and outside it. The internal infrastructure of the cluster association will cover the production, processing and marketing of agricultural products, and the external infrastructure will include banking institutions, insurance companies, local authorities, research institutes, and external marketers.

Enterprises that have joined a cluster association based on common problems will form a strategic development plan for both the association and their own. The main advantage in the formation of short- and long-term development plans will be expert advice, obtaining complete information about the market, buying and selling

agricultural products at the best price, reducing risks, improving investment attractiveness.

Further development of agro-industrial clusters will contribute to the formation of a mechanism to improve the degree of investment attractiveness of agricultural enterprises in the region.

The purpose of forming a mechanism to increase the level of investment attractiveness of agricultural enterprises is to attract and effectively use investment funds of other members of the agro-industrial cluster to ensure the required level of investment attractiveness of agricultural enterprises, which requires the following tasks:

- substantiation of the main parameters of development of agricultural enterprises;
- definition of directions of development of business structures;
- using the potential of the cluster in various areas of its activities to maintain and improve the investment attractiveness of agricultural enterprises;
- constant activity on attraction of new investments depending on fluctuations in the market;
- use of various forms of cooperation with partners, authorities and financial institutions;
- formation and application of information base within project and investment activities.

The development of agro-industrial clusters should be clearly consistent with the investment and, most importantly, economic policy of economic entities.

In April 2021, within the framework of the project of decentralized cooperation between Vinnytsia region, Vinnytsia and Dijon, Burgundy region with the support of the Ministry of Europe and Foreign Affairs of France signed a Memorandum on establishing an innovative agro-industrial cluster «AgroVin».

Initiators of creating an innovative agro-industrial cluster in Vinnytsia region:

From the agro-industrial enterprises of Vinnytsia region:

- LLC «Dibrova and K»;



- Agroposlugtransservice LLC;
- LLC «AGRANA FRUIT Ukraine»;
- LLC «Organic-D»;
- PJSC «Vinnytsia Food Factory».

From the scientific institutions of Vinnytsia region:

- Vinnytsia National Agrarian University;
- Institute of Forage and Agriculture of Podillya National Academy of Agrarian

Sciences [326].

Innovative agro-industrial cluster «AgroVin» is the center of a joint initiative for cooperation between agricultural enterprises, food and processing enterprises, Vinnytsia National Agrarian University, research institutions of Vinnytsia region, authorities and local governments, united in their efforts to improve productivity of local enterprises of agro-industrial complex.

Participants of the innovative agro-industrial cluster «AgroVin» unite their efforts to achieve the following goals and objectives:

- increasing the efficiency and productivity of local enterprises of the agro-industrial complex;
- increasing the volume of production with high added value – the development of export potential;
- intensification of innovation activities through the introduction into production of scientific agricultural institutions of the region;
- conducting research in the field of implementation and optimization of modern technologies of land cultivation and irrigation;
- introduction of agrotechnologies with the use of IT innovations;
- improving the dialogue with the State at various levels of its bodies on more effective support of agro-industrial production;
- expansion of international relations and participation of the innovative agro-industrial cluster «AgroVin» in international projects and programs.

The main activities of the innovative agro-industrial cluster «AgroVin» are:

In the agro-industrial complex:

- development of proposals to improve the efficiency of agricultural production;
- joining efforts to create value chains in the production and processing of agricultural products;
- development of proposals for improving state and regional support for the agricultural sector;
- promoting the introduction of innovative products of scientific agricultural institutions of the region.

In scientific activity:

- conducting independent and joint research work on the creation and optimization of new agricultural technologies, processes of processing agricultural products;
- organization and implementation of applied research in agro-industrial production;
- development of innovative ideas and solutions;
- provision of consulting services [326].

Financial support of the innovative agro-industrial cluster «AgroVin» is carried out on the basis of self-financing of actions of each party and/or on the basis of separate agreements according to the current legislation of Ukraine.

The innovative agro-industrial cluster «AgroVin» can participate in national and international projects and programs funded by the state or international financial institutions.

The creation of an agro-industrial cluster allows to unite farmers, agricultural producers and processing enterprises, increases the efficiency and productivity of local enterprises of the agro-industrial complex and increases the added value of products.

The innovative agro-industrial cluster «AgroVin» is created on the example of the French cluster «Vitagora».

Additional involvement of financial resources in agricultural enterprises will be determined by the investment policy, as its formation takes place in the interests of both the agricultural enterprise and the potential investor.

The formation of investment attractiveness of agricultural enterprises depends not only on their type of activity and current financial condition, but also on organizational and managerial methods of management, namely the ability to present their own enterprise as an investment project and find ways to highlight its advantages, region and country as a whole. in the case of a foreign investor.

Examining the agricultural enterprise as an investment project, we focus on marketing models «4P» and «5P», the use of which in the formation of investment attractiveness of the agricultural enterprise will solve one of the tasks facing the agricultural business structure, namely increasing the cost of the enterprise by improving it. image and recognizability.

The 4P marketing complex consists of four elements: Product; Price; Place; Promotion. If we take into account that the activity of an agricultural enterprise is focused on people, then we get a marketing complex «5P» with another component: People.

The main features of the agricultural enterprise, which characterize it as an investment project are:

- investment attractiveness of the agricultural enterprise for international and national investors (attractiveness of the goods for the buyer);
- attracting investment to improve the economic activity of the agricultural enterprise;
- project life cycle;
- the cost of the investment project or the amount of investment required to implement the project;
- acquaintance of potential investors with the investment project;
- bringing to the national and international investor the main advantages of the functioning of the agricultural enterprise and creating a desire to invest their own resources in such a project.

According to these characteristics, the investment attractiveness of the enterprise can be considered from the standpoint of marketing, and its economic activity can be characterized as actions to increase the cost of the enterprise.

Market relations force companies to focus on the consumer of products, using marketing approaches to sell products at the maximum price. The 5P marketing complex will focus on achieving the maximum interest not only of the product manufacturer, but also of its consumer, as well as society as a whole. In this case, the use of the concept of «5P», which takes into account the interests of the maximum number of institutions (state, local government, national and international investors, agricultural enterprises, owners of agricultural formations, suppliers of raw materials, end users) when investing financial resources will have a positive impact. formation of investment attractiveness of agricultural enterprises.

It can be assumed that the higher the level of subordination of socio-economic interests of the main participants in the investment process, the greater the effect of investment. In order to maintain the appropriate level of investment attractiveness of agricultural enterprises, it is necessary to take into account the interests of all participants in the investment process, namely: business owners; investors; states; consumers of agricultural products.

Each of the above-mentioned subjects of the investment process has its own interests in conducting investment activities and is interested in increasing the investment attractiveness of an individual enterprise, as in the future it has a positive effect on the income of business owners and financial resources received by the investor. tax payments by an agricultural enterprise, which will contribute to the growth of the investment climate.

As a result, it is possible to form a model of interests of the subjects-participants of the investment project to the economic activity of agrarian business formation, which indicates that these indicators have an impact on the interests of all subjects-participants of the investment process (Fig. 10).

With the joint orderly activity of the subjects – participants of the investment process, a balance will be achieved in the current economic process of the agricultural enterprise. Therefore, to measure the level of positive attractiveness of the interests of the subjects of the investment process, it is necessary to select certain factors for each individual entity (factors should best satisfy the interests of an individual entity). The

investor investing investment resources, focused on maximizing economic value added, which will accelerate the return of financial resources invested in the investment project and profit from the economic activity of the agricultural enterprise.

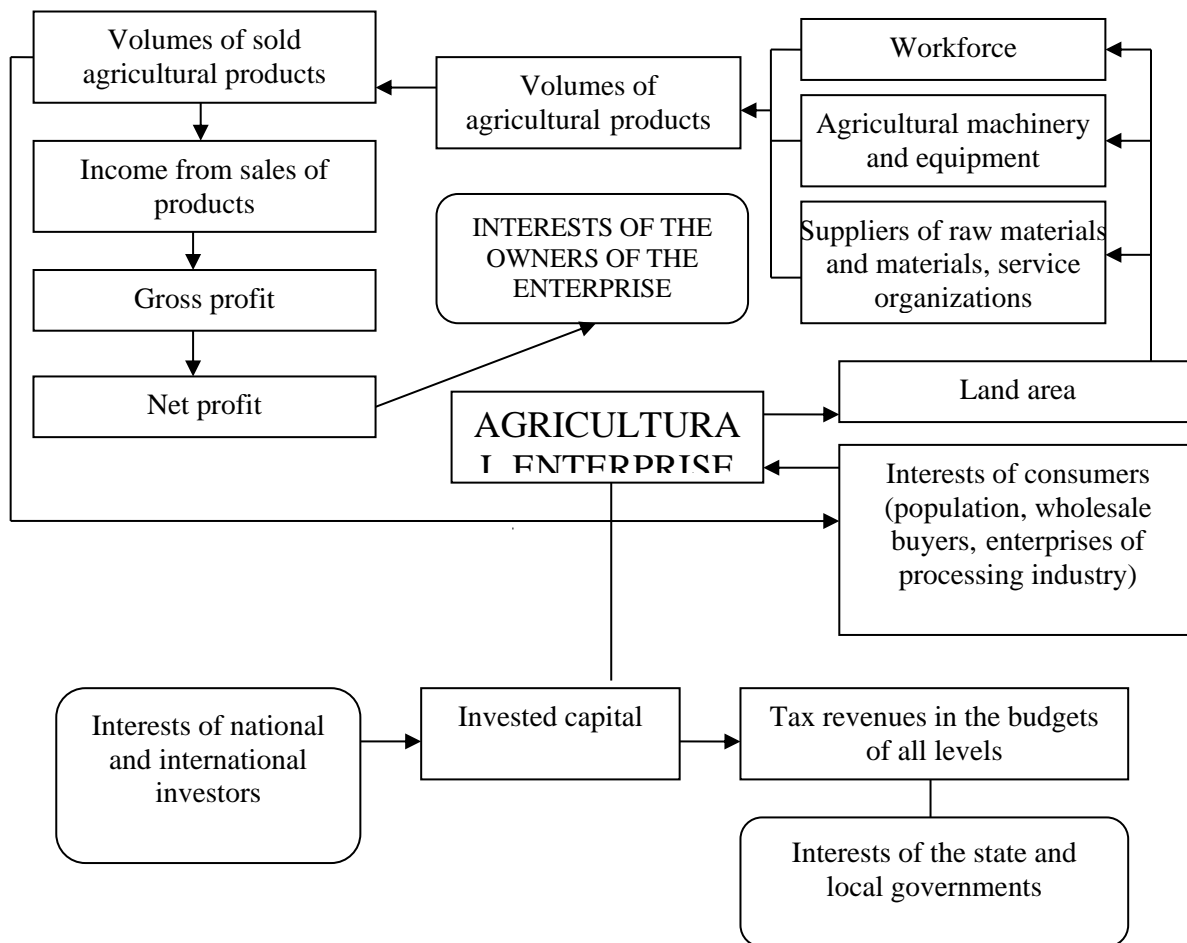


Figure 10. Model of interests of subjects of investment process to economic activity of agrarian business formation

Source: compiled by the author for [320; 325; 340; 342]

The indicator of economic value added indicates the current activities of the entity and allows you to determine its prospects for development. The indicator reflects the assessment of the investment attractiveness of the agricultural enterprise through the determination of the value produced by the agricultural producer for a certain period of time. A positive result is the excess of profits over the value of investments.

Given that increasing the value of an agricultural enterprise is one of the main goals of its owners and a key factor that contributes to the inflow of investment resources into the enterprise, it is necessary to take action to increase the value of

agricultural business. In agricultural enterprises, where cost-oriented enterprise management has not yet been introduced, it is necessary to concentrate activities in the direction of value creation. The main measures that will affect the growth of the value of the agricultural enterprise are: benchmarking; outsourcing; subcontracting; business process reengineering; reorganization of the resource potential of the agricultural enterprise; restructuring.

In order to improve the investment attractiveness of a single agricultural enterprise, it is advisable to: to introduce the latest scientific and technical equipment into economic activity; increase production volumes; to improve the quality of agricultural products; create new jobs; reduce the resource consumption of the agricultural enterprise.

Such actions will increase revenues to state and local budgets. It is worth noting that the increase in agricultural production and job creation will increase budget allocations and reduce unemployment.

The main areas for improving the investment attractiveness of agricultural enterprises should be: formation of a step-by-step strategy for reforming the agricultural sector of the economy; financial assistance through subsidies to agricultural businesses; improvement of fiscal policy; modernization of the market of agricultural products; development of infrastructure facilities in the agricultural sector; formation of an electronic resource with all the information about the investment attractiveness of agricultural enterprises; ensuring cooperation between different industries of production and processing of agricultural products; creation of cooperatives and agro-industrial clusters; introduction of innovative technologies through ensuring cooperation between scientists and manufacturers [322; 327; 328; 329].

To ensure the appropriate level of investment attractiveness and to improve their own image and the ability to attract investment funds in their economic activities, agricultural enterprises should provide: high-quality staff of highly qualified workers and managers in agricultural production; technical re-equipment of production and application of the newest technologies in activity of the enterprise; compliance with

standards of agricultural production; ensuring proper reproduction of soils [328; 330].

The above-mentioned ways to improve the investment attractiveness of agricultural enterprises indicate that without effective regulation and support of the agricultural sector by the state, the high-quality functioning of agricultural entities is impossible. The main direction that will promote the development of agricultural enterprises and increase their investment attractiveness is to improve fiscal policy and eliminate corruption and bureaucratic components.

The regional government, in turn, must create the necessary modern infrastructural conditions for the development of agricultural enterprises. Important in the context of investment attractiveness is the presence of a developed agricultural market with all the necessary service organizations.

First of all, agricultural enterprises must adhere to the standards of production and promote the introduction of innovative technologies in their own economic activities, as the efficiency of their work depends on the profitability of the enterprise and the level of its investment attractiveness.

All the proposed measures will create conditions for improving the production of agro-industrial products, which will increase the investment attractiveness of agricultural enterprises.

Thus, the degree of investment attractiveness of the agricultural enterprise is an indicator that allows potential domestic and especially foreign investors to draw conclusions about the need and feasibility of investing financial resources in this object. The investment attractiveness of an agricultural enterprise depends on a favorable geographical location, a favorable environmental situation, a progressive socio-demographic structure of the population with a sufficient share of people with secondary and higher education, security of investment.

The most important characteristics and factors that determine the investment attractiveness of agricultural enterprises are: geographical location of the enterprise; the presence of a road network and the proximity of the enterprise to transport communications; size of land use; development of production and social infrastructures; demographic situation in the region; types of products, its volume,

competitiveness and opportunities for diversification of activities; domestic demand and export opportunities; availability of raw materials and supplies; cooperation with other enterprises; production capacity of the enterprise; the nature of technology and the availability of modern equipment; environmental safety of production; the company's place in the industry and its market share; qualitative and quantitative condition of the staff; management system and its structure; salary level; form of ownership, etc.

The study of the investment attractiveness of Ukraine's agricultural sector has revealed a strong agricultural potential that can enable it to become a leading exporter of agricultural products in the world and become one of the world's leading suppliers of food. The main prerequisites for this are: a favorable climate, the availability of fertile soils (32.5 million hectares of arable land, of which 19.4 million - chernozem, which is 1/3 of all its world reserves), inexpensive labor, well developed infrastructure, proximity to major international markets, etc. The development of the economy of agricultural enterprises, their modernization, increasing production efficiency and the realization of export opportunities depend on the intensification of investment processes, which will ultimately have a stimulating effect on the development of the country's economy as a whole.



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