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ECONOMIC SCIENCES

INTEGRATED ENTERPRISE MANAGEMENT MODEL IN THE POST-INDUSTRIAL DEVELOPMENT SYSTEM

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Abstract

We have studied the main types of relationships between the elements of the management system of an agricultural enterprise depending on the hierarchical levels of management. We have adapted each of the types of ties to companies of different sizes and ways of organizing business. It is determined that the basis of competitiveness of modern business is digitalization. It is envisaged that the traditional systems of organizational structure of business agricultural structures using modern tools of organization and conduct of business, as well as in the context of digitalization encourages the transformation of ties between participants in the business process.. We investigated that the activities of agricultural enterprises require a change in approach to the organizational structure and types of relationships with participants in the production process. Modern agricultural business structure today requires a joint effort of all forms of business organization in a given area (households, private farms, farms, small farmers, agricultural cooperatives) to achieve a common goal. We believe that to ensure the maximum effect of agricultural enterprises at the level of the territorial community or region, it is necessary to form a regional cluster, which will include enterprises that agree to implement a common strategy for cluster structure and work on strict implementation of the principles defined by the cluster coordination structure. When organizing a business agricultural structure in the form of a territorial cluster, it is necessary to create a single information database to manage it, and to control the smooth operation of all cluster members.. One of the tools for organizing modern business at the level of the territorial cluster, which helps to reduce the cost of production per unit of output and reduce the amount of material consumption is the use of an information platform for the implementation of the sharing economy, which is a socio-economic system based on the sharing of human and physical resources. The implementation of such a model of business structure requires the use of complex software products, such as automated control systems BASE ERP, with the ability to comprehensively automate all management processes and accounting systems in the business structure.

Keywords: Integrated Management System, Agriculture, environmental management, digitization, quality management system, management tools, shared economics, comprehensive management system program

The post-industrial development system requires a modern approach to the organizational structure of business. In a competitive environment, it is important to organize the production process so that the formation of value added is carried out at each stage of production within one technological process. This technology of the production process will help reduce costs without compromising the quality characteristics of the product and the accumulation of added value within a closed production cycle. Gaining competitive advantages in the market is the basis of modern business. Producing a quality product with optimal cost indicators, the company gets the opportunity to expand its market segment. However, the organization of the production process according to this model requires a change in approach to the organization of the management system. The most effective for the organization of a closed production cycle is a vertically integrated enterprise structure with an organized closed production cycle.

The low level of employment of the rural population in Ukraine and the significant need for labor resources in the production of agricultural products require changes in the organization of business structures. It is necessary to build a modern business in such a way as to attract as much as possible in the production process of free potential labor resources.

Therefore, the organization of agricultural production requires a change in its organizational structure in the first place.

Both external and internal factors have a significant impact on the performance of agricultural enterprises. To manage the performance of agricultural enterprises it is necessary to develop levers of influence on such factors. To implement the functions of control over the influence of external and internal factors affecting the activities of agricultural enterprises, we consider it appropriate to use integration mechanism. Because the integration mechanism involves the formation of closed technological chains and strong production ties in one process and facilitates the coordination of sales. This leads to a decrease in unit cost and increase productivity [2].

Thus, the organized technological process is focused on increasing the financial stability of the enterprise, increasing its business activity, expanding the market and forecasting, assessing and reducing the negative effects of risks. Existing technologies and modern software and automated control systems that operate within a single information database make it possible to implement this model. Building a modern business should be focused on the possibilities of the fourth industrial revolution (*The Fourth Industrial Revolution*, або *Indus try 4.0*). Implementation of the

production process in a complex system of automated technological production processes and systems of their control implemented in the production process is carried out on the basis of constant data exchange within production technologies and automated control and monitoring systems. This makes it possible to create a self-regulating system with minimal interference of physical labor in the production process. Thus, the organized production process involves the creation and gradual accumulation of added value at each stage of the production chain.

In the conditions of fast digitalization of formation of connections between participants which activity is connected by close industrial communications in one production process is carried out by means of the built algorithms of decisions in a uniform information database. The links between each of the participants and each of the elements of the value chain must be integrated into a single management system. Such a management system should be built within a single information database, with distributed hierarchical links and levels of access within such a value chain. This can be achieved by integrating the appropriate controls and combining the necessary tools through the use of software products. As a result of active digitalization both in business and in the life of society, all participants receive effects. Business circles receive positive effects in the field of business efficiency and new opportunities in the process of its organization, and consumers receive quality goods and services.. Therefore, the management system of a modern enterprise is not similar to any of the developed models, as it contains tools that were previously possible to implement only in the presence of a wide range of positions and separate units. Such a management system was available and effective only for large enterprises, as for small enterprises the availability of expanded management staff was impractical, and the use of most business management tools was not

available. Thanks to digitalization, management technologies have become more accessible, and the tools of management systems have become a means of implementing the strategy of enterprises of any organizational and legal form of ownership. Management, as a process, at the level of business structure is an action aimed at arranging the connections between the elements of the system. Therefore, enterprise management is a complex system that includes management elements, management objects, entities they manage and those who manage, involve the interaction of all components and levels of subordination. The management system can function as a single mechanism only with a well-established scheme of work and compliance with all participants in this process of principles and the use of tools provided by the mechanism. Elements of the management system interact through the links of different ways of influencing management and economic activities and participants who implement it. There may be linear, functional and inter-functional connections between the elements of the enterprise management system at different levels.

Based on the nature of the links, the size of the enterprise, the levels of hierarchy for agricultural enterprises, the appropriate type of organizational management structure is selected, which will be integrated into the relevant software product. Both the type of organizational structure and the software for the implementation of the management system of the agricultural enterprise is chosen by the management based on the purpose of management, the model of business organization, and the chosen tools for enterprise management. If the agricultural enterprise has a detailed structure, operates in various areas of economic activity (crop, livestock, vegetable, melon, horticulture, processing industry), then the organization of the management system combines several types of organizational structure.

Table 1

Characteristics of the links between the elements of the management system of the agricultural enterprise depending on the hierarchical levels of management

The type of links between the elements of the management system of agricultural enterprises	Signs of the appropriate type of relationship	Relationship hierarchy levels
Linear	Based on the administrative subordination of employees to the director of the appropriate level of the hierarchy	director of the enterprise - director of the department - director of the unit - foreman - employee of the relevant unit
Functional	Based on the interaction and cooperation of heads of departments not related to each other by administrative ties	Chief Accountant - Director of the Department - Chief Agronomist - Chief Zootechnician
Interfunctional	Based on the interaction and cooperation of specialists of the same level of management	Foreman of the farming brigade - foreman of the vegetable brigade - foreman of the fruit and berry department - head of the department of fruit and vegetable processing, etc.

If the agricultural enterprise is not large in volume and volume of work performed per employee, then to

implement its main strategy is sufficient to form production links in which the employee is headed by

only one person to whom he is subordinate, who will perform all administrative, and, if necessary, special functions. This structure of enterprise management is linear. The linear structure of enterprise management can be used in enterprises with a simple structure, or as an element of the management system of a separate department. However, to implement such a management structure in agricultural enterprises is possible only in the presence of a highly qualified manager who is able to implement the strategy of enterprise development while solving current problems related to the management of the enterprise or its divisions..

With this type of management structure, the maximum clarity of the relationship can be traced through the unambiguous instructions of the management to the performers.. An important advantage of using a linear type of management system is the efficiency of management decisions and the implementation of an effective system of control over

the timeliness, quality and efficiency of tasks.

If in the organization of the management system of an agricultural enterprise management functions are distributed based on the functional responsibilities of separate units of the management staff, then we recommend the company to apply a functional management structure. With such a management structure for the implementation of the main strategy of the enterprise, the tasks are distributed in such a way that each of the production units (crop, livestock, processing, horticulture, etc.) receives instructions simultaneously from several functional units. At the same time, executors receive competent management instructions, with possible inconsistencies and a complex mechanism for coordinating the functioning of management services..

The main characteristics of agricultural enterprise management systems are grouped by us and presented in table 2.

Table 2

Types of organizational structures of the agricultural enterprise management system

Type of organizational structure of agricultural enterprise management	The nature of the connections	Signs of the type of management structure
Linear organizational management structure	Linear connections. A structure with single-channel connections between elements	The subordinate is managed by only one manager, who implements administrative and specific functions
Functional management structure	Functional connections. Tasks are distributed in such a way that each of the production structural units (crop, livestock, processing, horticulture, etc.) receives instructions simultaneously from several functional units	Management functions are distributed based on the functional responsibilities of separate units of management
Linear-functional management structure	Cross-functional connections. Management functions (authority and responsibility) have a vertical distribution; hierarchical distribution of functional management functions and linear relationships within separate structural units	Simultaneously, the linear type of organizational management structure within each structural unit and the functional type between the heads of structural units are used.
Divisional management structure	Cross-functional connections. Separation when performing management functions	Decentralization of operational management functions; centralization of managerial functions of senior management of the overall corporate strategy
Matrix management structure	Linear links between business leaders with the simultaneous formation of specialized project teams at the time of project implementation or implementation of innovations	The functions of the senior management staff can be changed and the very model of organizing the work of management staff of separate structural units can be transformed into specialized project groups.
Hybrid management structure	A combination of both linear and functional connections in a single company management system, depending on the type of management structure at the appropriate level of the management system hierarchy.	Application of automated management systems based on a single information database focused on a permanent system of accounting, analysis and control to determine the effectiveness of management decisions

In large enterprises with a branched structure, management functions (authority and responsibility)

have a vertical distribution. At the same time, the linear type of organizational management structure within

each structural unit and the functional type are used, in which the heads of functional units of the management system assist in making management decisions by heads of separate structural units (linear structural units). The complex organizational structure of an agricultural enterprise involves linear relationships of management staff according to the scheme: the head of a separate structure (director) - chief specialist (chief agronomist, chief zootechnician, chief engineer, etc.) - executor.

Agricultural enterprises with a hierarchical distribution of functional management functions and linear connections within the separate structural units have the ability to quickly implement management decisions due to: clearly defined specialization of separate structural units, a high level of ability to maneuver available resources.

Under stable management conditions and in the production of products in large volumes according to the standard technology of their production and the model of the organizational structure of enterprise management is the most appropriate. However, if the company is innovative, and is constantly working to improve production technologies and doing business, the speed and efficiency of management decisions slows down sharply. With such a complex organizational structure, management is difficult to ensure coherence of work of functional divisions of the enterprise. We believe that it can be implemented only by integrating management functions into the algorithm of automated enterprise management systems.

For agricultural enterprises, which include a branched organizational structure with separate structural units and productions, it is advisable to form a management system according to the divisional type of organizational management structure. If an agricultural enterprise has a main strategy, and for its implementation provides for the development of different industries that operate separately, but complement each other forming a closed production cycle, then you need an extensive management system. With this model of business organization there are elements of centralization and decentralization of the management system. Centralization should be the basis for the implementation of the main strategy in the process of making strategic management decisions related to financial activities, in the implementation of marketing activities of the company and more. However, in the management system of separate structural units must be present the principle of decentralization, which ensures the autonomy of the management system. With a divisional management system of an agricultural enterprise, the level of qualification of senior management is high, which allows to make effective management decisions related to the company's development strategy, management and marketing system, which affects the level of financial stability and solvency of the entire business structure. And the specialized level of qualification of heads of lower management at the hierarchical level of separate structural divisions provides effective management of each production division. Each production has its own autonomous management

system, which is implemented according to the principles underlying the main business idea of the company. That is, there is a division of labor by separate functional units:

1. Production direction - realizes the production of the main types of products (crop production - by types of products, animal husbandry - by types of products, horticulture - by types of products, processing (by types of products);

2. Consumer direction - targeting a specific group of consumers;

3. By location.

Such a system is quite effective in terms of management efficiency, speed of management decisions and a high level of elasticity of the company's response to changes in external and internal environment. However, such an organizational structure of the enterprise management system requires a large number of management staff and the involvement of additional costs for the maintenance of the management staff.

If the country's economy undergoes frequent and abrupt changes in both legal legislation and the dynamics of conditions of cooperation and external cooperation, then large agricultural companies need a special management system when working in conditions of risk, dynamism and uncertainty.. Such a specific organizational structure of enterprise management is a matrix structure. This is a management system in which often (in crisis situations, the introduction of innovative methods and tools of production) can change the functions of senior management and transform the model of organizing the work of management staff of separate units in specialized project teams. That is, the heads of structural divisions of the company or its separate departments become participants in the implementation of an innovative project for a certain period of time, while combining the responsibilities. Within the project, a linear type of subordination to the project manager is used. Upon completion of the project, its participants return to the previously defined functions. The temporarily appointed project manager simultaneously performs the functions of project implementation and provides management of the division of the enterprise for which he is directly responsible. When using such an organizational management structure, the greatest advantage is the extremely high level of elasticity of the enterprise to dynamic changes and the ability to adapt innovative developments in the economic activity of the enterprise. However, in order for an enterprise to be able to apply this type of organizational management system, it is necessary to form an expanded staff of management staff and provide strong information links within a single information database with a differentiated level of access to information. With a large number of management staff and project participants, there may be moments of discussion and contradictions in the management decision-making process.

We believe that this management system is inefficient without an automated enterprise

management system. Only an automated database management system will give opportunity to effectively implement the main strategic goal of the enterprise.

The main advantages and disadvantages of each type of organizational structure of the enterprise we have grouped in table 3.

Table 3

Advantages and disadvantages of types of organizational structure of agricultural enterprise management

Type of organizational structure of agricultural enterprise management	Benefits	Features
Linear organizational management structure	Clarity of the relationship, unambiguity of management instructions, efficiency of preparation and implementation of management decisions, efficiency of control	High level of qualification of the head, ability to implement strategy of development of the enterprise with the simultaneous decision of current problems connected with management of the enterprise, or its divisions
Functional management structure	Performers receive competent management instructions	Contradictions are possible and a complex mechanism for coordinating the functioning of management services
Linear-functional management structure	Ability to quickly implement management decisions due to: clearly defined specialization of separate structural units, a high level of ability to maneuver available resources	With a complex organizational management structure, it is difficult to ensure the coherence of the functional units of the enterprise; When changing production technology, the speed and efficiency of management decisions slows down sharply
Divisional management structure	High efficiency of the management system, fast management decisions are made, high level of elasticity of the company's response to changes in the external and internal environment	Requires a large number of management staff; requires additional costs for the maintenance of the management staff
Matrix management structure	High level of elasticity of enterprise functioning to dynamic changes and ability to adapt innovative developments to economic activity of the enterprise	Large number of management staff, strong information links between departments, conflict in decision-making
Hybrid management structure	High flexibility, adaptability to changes, compliance with the company's development strategy, full control over the effectiveness of management functions online, application of modern management tools	Requires a high level of staff skills, additional costs for the acquisition and maintenance of information database, constant consistency of management decisions to comply with the company's strategy

Modern business conditions do not allow businesses to use traditional organizational management systems. Since modern enterprises operate in a period of high level of dynamism of both economic and political and social transformations, there is a need to create new hybrid management systems that will meet the needs of the enterprise, will not contradict the main strategy of state development and ensure the implementation of social functions. Therefore, modern business structures with extensive links in the production process involve the combination and simultaneous use of different types of organizational management structures. Peculiarities of economic integration have been studied by many scientists [2]. The modern business system is subject to the requirements of the state and the needs of the social sphere. Implementing the main development strategy

of the state, a modern agricultural enterprise should be permeated with ties with state regulatory authorities and operate in accordance with the conditions of the area where the enterprise is located, as well as operate within strong ties with the social sphere of the community, because it directly affects its vital functions. Such a difficult requirement requires a change in approach to both the organizational structure itself and the approach to building a system of connections between its elements. Modern state policy of Ukraine is focused on the implementation of the Sustainable Development Goals of the state until 2030. Its objectives are «... Objective 8. to promote progressive, inclusive and sustainable economic growth, full and productive employment and decent work for all; Goal 9. Create sustainable infrastructure, promote inclusive and sustainable industrialization and innovation;

Objective 11. ensuring openness, security, vitality and environmental sustainability of cities and other settlements;...» [4]. For realization of the specified purposes it is necessary to consider in structure of ties of the agricultural enterprise needs of that territorial community in the territory of which it realizes the economic activity. We believe that it is necessary to reach a new level of cooperation and combine the technology of agricultural enterprises with the involvement of households in the technological process. Modern public policy facilitates such cooperation. Legislation is being adopted today that encourages households and small businesses to use elements of digitization in the payment system. Of course, to build such a business model, it is necessary to make a microcredit system available for small businesses and households. To do this, we recommend organizing the work of agricultural enterprises in the form of regional clusters, which will operate separately structure of financial and economic support, the structure of production, the structure of organization and support of business and the structure of logistics.

Due to the active transition of society to digital communication systems, the approach to the organization of connections in the business structure is changing. Today, the cooperation of branched business structures and their separate divisions or departments with households has become available.

In connection with the requirement of the state to ensure the social welfare of the population of cities and other territories, the basis of the strategy of business structures, the issue of corporate social responsibility becomes one of the fundamental elements of the strategy of their development. That is, one of the vectors of the enterprise management system was social management. Thanks to digitalization, which has expanded the capabilities of modern information technologies of enterprise management systems, it has become possible to cooperate within a single information database of structures of different organizational and legal forms, which operate within the implementation of a single strategy. This makes it possible to create a single information database by collecting, storing and retrieving, organizing and processing the necessary information at the request of the user, which is necessary for a specific purpose within the access rights. The introduction of modern integrated software products makes it possible to integrate into the management system of business structures of small businesses, micro-enterprises and households, involving them in a single technological process. This is a positive phenomenon, because the saturation of the market with goods and services produced by large companies using innovative technologies, do not allow small businesses to compete that use traditional technologies in the production of similar goods, works and services. The largest gap in the use of innovative technologies is observed in agricultural enterprises of different organizational and legal forms of ownership. Thus, if a household or small enterprise is engaged in the production of a certain type of product using traditional technology, then the resource consumption for the production of a unit of

production is almost the value of its sales value, which can be offered by a large company, implementing automated production systems, and uses in the production process complex units and using automated control systems. Therefore, the inequality of competitive conditions of management of agricultural enterprises of different organizational and legal forms of ownership requires today the search for a new more cost-effective scheme of cooperation. There is a need to form such an algorithm of each of the structures, which will be a supplement for implementation unified development strategy of the region. In such a format as enterprises existed during the use of the state command and administrative system of management under market conditions, agricultural enterprises can not meet any economic or environmental, social and state needs. Therefore, we conducted a study aimed at finding the optimal structure of the organization of agricultural business in terms of active digitization of both the production process and management systems. Exploring this issue, we faced a closed problem related to the impossibility of implementing modern innovative technologies in small businesses and households due to low awareness of management and production staff of these structures and low level of economic payback of modern technologies, or their complete economic inefficiency. implementation in enterprises with a small volume of production.

We came to the conclusion that agricultural production today needs to change the approach to the organizational structure and types of ties with the participants of the production process. Our opinion is supported by A. Postol [5], which also revealed that the formation of modern agricultural business requires changes in the organizational structure by combining joint efforts of all forms of business organization in a given area (households, private farms, farms, small farmers, agricultural cooperatives) to achieve a common goal. We believe that to ensure the maximum effect of agricultural enterprises at the level of the territorial community or region, it is necessary to form a regional cluster, which will include enterprises that agree to implement a common strategy for cluster structure and work on strict implementation of the principles defined by the cluster coordination structure. When organizing a business agricultural structure in the form of a territorial cluster, it is necessary to create a single information database to manage it, and to control the smooth operation of all cluster members. One of the tools for organizing modern business at the level of the territorial cluster, which helps reduce the unit cost of production and reducing the amount of material and capital intensity per unit of output is the use of an information platform for the implementation of the sharing economy, which is a socio-economic system based on the sharing of human and physical resources. As there are many interpretations of this term, this tool is often called "mesh economy", or collaborative consumption [6]. When the participants of the territorial cluster use the economy of common use it is necessary to create an appropriate sharing platform within a single information database, on which it will be possible for the cluster members to make appropriate

proposals indicating the time, technical and price aspects. That is, our proposed model of sharing economy within the links between cluster members involves the use of IT model of linear ties and interaction between cluster members for commercial or non-commercial exchange of free from use by the owner assets (goods, opportunities to provide services) without transfer of ownership. This model of cooperation and ties between the members of the structural association has special advantages in agricultural production. As the value of non-current assets of agricultural enterprises is high, however, with small volumes of production their use is not realized throughout the year, which makes inefficient on low-profit production when acquiring non-current assets without which the production process is impossible. Due to the application of the sharing economy in the system of connections between the participants of the territorial cluster, the expediency of purchasing innovative equipment increases due to the possibility of obtaining additional income from its constant use by the cluster members. And for small businesses and households, the use of modern technical and technological means and technologies is becoming more accessible.

The formation of such ties between the cluster members also provides opportunities for small businesses, micro-businesses and households to use in the production of certain products not only traditional technologies, but to become participants in innovation-oriented programs and projects that encourage them to develop and ensure their economic growth. This approach focuses on the intensive use by cluster members of a tool such as the sharing economy will help reduce the unit cost of production and will improve the economic situation of all cluster members due to the intensive use of innovative, resource-saving, cost-effective technologies and tools. This is the business model gives the opportunity to feel the synergistic effect from various innovative tools of business organization, and from its implementation. When organizing a business in the form of a territorial cluster, which will form business relations between participants of various organizational and legal forms and small and micro enterprises, including households, the management system provides linear, functional and mixed relations between its participants (hybrid management system). Such a system of cooperation has a positive impact not only on the economic situation of the cluster members themselves, but also has a positive impact on the state economy. Due to the economic effects obtained from the use of hybrid organizational structures with specific links and different levels of cooperation with the financial sector, research institutions, educational institutions and production structures, the implementation of the state development strategy and social and economic growth is ensured. With increasing economic performance of enterprises, and with increasing incomes, the amount of economic revenue to the state budget also increases. A similar vision is also highlighted in scientific research, T. Stepanova [7], who studied foreign experience in the application of the economy of shared use within the

territorial agricultural clusters. She researched that in developed countries there are small enterprises that are members of the cluster contribute to filling the budgets of all levels with stable amounts of revenues, and, creating additional jobs, contribute to reducing unemployment in rural areas, implementing the social direction of development. That is, from the construction of ties on a mixed (hybrid) type between participants in market relations in the field of agricultural production and the formation of integrated management systems of economic entities whose activities are grouped into clusters the main problem of modern society is solved and one of the goals of the state development strategy is to provide the able-bodied population with decent work. An important advantage of the formation of territorial agricultural clusters focused on the use of innovative tools for both production and management systems is the ability to effectively use idle, or little used by business entities resources. However, this is possible only with the introduction of integrated automated control systems, which provide for the formation of a single information database with a differentiated level of access for each of the cluster members. This model of business organization in the field of agricultural production is guaranteed by:

- sufficient level of efficiency in realization of state interests and realization of regional development programs;
- will promote the implementation of the main objectives of agricultural enterprises of various organizational and legal forms of ownership, small, micro-enterprises, farms, individual entrepreneurs and households;
- ensure the fulfillment of social needs of residents, living in the territory of the cluster.

We believe that the most vulnerable in this chain are households, individual entrepreneurs and micro-enterprises. The problem is related to the high level of competition in the market, the disproportionate level of labor costs and material costs per unit of production compared to similar goods produced by large and medium-sized enterprises. The lack of resource potential of small agricultural market participants does not allow the use of highly intelligent professionals, qualified personnel who have modern tools of innovative production technologies and organization of modern management systems adapted to specific conditions of the business entity based on digitalization elements. Therefore, our proposed model of the organizational structure of the territorial agricultural cluster based on the use of integrated management systems with the active use of automated business management systems helps to increase the efficiency of all participants in such a business process. At the same time, using automated management systems and modern tools for organizing and conducting business, the efficiency of using such factors as "Time", "Money" and "People" is maximum.

Using digital technologies in all spheres of economic activity, when creating an information database, the process of making managerial decisions acquires a different format, through the use of algorithms for

ready-made solutions and models of optimization problems. Doing business became impossible without intensive use of digitalization both in the process of business planning and in the organization of the system of its management and control over the implementation of the main strategy of the business project. We believe that the unwillingness of agricultural enterprises to adapt to work in the context of digitalization has become one of the main causes of the economic crisis in Ukraine, which is an agrarian state. The old system of business organization, its management system, the use of traditional business models and business processes has become ineffective in the context of rapid digitalization. Failing to transform the analog formats of information into digital, agricultural enterprises became uncompetitive in the market, and households and individual entrepreneurs became unable to manage effectively with the traditional approach to organizing the system of production and sale of goods (works, services).

Integrating elements of digitalization into the production process is its optimization through the introduction of modern software and hardware solutions. The digitalization of the production process reduces the negative impact of the so-called "human factor" and improves human working conditions and efficiency. The introduction of digitalization in the process of organizing and supporting business analog forms of paper documents and reporting forms are transformed into electronic, which saves resources and time and reduce the possibility of mechanical errors, as software products include a function of verification and analysis. At the same time, trust in the information generated by the results of the enterprise increases, as the level of accuracy of information increases, which is important in decision-making by both internal and external users of information.

It should be understood that investing resources in digitalization, the company agrees that information systems and technologies used by it are a resource that will radically change not only the structure of the enterprise but also its management system, promote opportunities for new forms of cooperation with customers, opening modern channels, communication and new means of communication between the participants of the enterprise and external partners.

Today, the level of digitalization of the enterprise is a determining factor in its level of competitiveness. Because, all enterprises, including agricultural ones, are connected by a certain type of connections, according to which the process of information exchange is realized. Working within a single information database and forming a differentiated access to the database within the appropriate level of the hierarchy of the entity that is a member of the agricultural cluster, it receives appropriate access to information and the ability to process and store it. This model of information exchange, when working in a single information system allows you to cooperate more widely and more effectively.

We investigated [9] that modern control systems should be focused on such a level of software products that provide extensive use of cyberphysical systems using modern effective tools such as: the Internet of

Things, the Internet of Services and others. Automation of the production process, automation of the control system and automation of the control system make it possible to create an enterprise that will meet all the requirements of the format of the enterprise "Economy 4.0", ie the format of the 4th Industrial Revolution. Building a model of an agricultural enterprise in this format involves the integration of operations and technologies for their implementation (physical scope of their implementation, digital and biological) in one common, so-called - integrated. Under such a system, economic activity is carried out within the developed plan, defined technology, and a permanent control system. The operation of the enterprise in the conditions of economic activity in the rapid decision-making on the basis of collected within the same management system of relevant data and their analysis contributes to faster adoption of effective informed management decisions. At the same time, the organization of the production process is carried out flexibly to change the needs of the market and the environment of activities with lower costs and losses. All this contributes to the production of those types of goods (works and services) that are in demand in the market today with the appropriate quality characteristics and minimal costs. Reducing the unit cost of production makes it possible to form a competitive price and increase the segment of the consumer market occupied by the company.

Changing the organizational structure of agricultural enterprises and the integration of the proposed tools into the production process contributes to the formation of a new business model, which provides a modern way of interaction in the overall value chain.

The change in the organizational structure of the enterprise causes a change in the approach to the management system due to the widespread use of tools related to the capabilities of digital technologies. The use of integrated management systems affects the level of competition of the enterprise, its financial stability. An important element that negatively affects the efficiency of the enterprise is its state of uncertainty. Anticipating risks and taking them into account when planning activities helps to reduce their unexpected negative effects, which is an important competitive advantage in the market.

Agricultural enterprises of Ukraine today need such actions aimed at activating their internal potential and building ties between the participants in the organizational structure of the enterprise. The formation of similar links between the structural units of the enterprise and between enterprises in the system of partnerships contributes to the formation of new integrated structures with different levels of integration: vertical, horizontal, diagonal or mixed (conglomerate) [8].

The application of integration is a way to increase production efficiency through savings within the value chain by reducing costs (material, financial, organizational and other) combined into a single technological process. In addition, the integration of the management system contributes to the generalization of information into a single system and the integration of knowledge of different areas of direction into a single management

decision-making process. Integration in the organizational structure of the enterprise makes it possible to organize a system of cooperation of different vectors (economic, environmental, social) in one commercial scheme of work. Organizational structures of various forms of integration contribute to a fuller use of territorial division and division of labor.

Horizontal integration in scientific work S.V. Mocherny [3] - is presented as an association of enterprises that involves the establishment of close interaction between them "horizontally" taking into account the possibility of joint activities of enterprises that produce homogeneous products and use similar technologies.

The organizational structure of the enterprise formed on the basis of vertical integration provides for the formation of intersectoral links of cooperation both between individual enterprises and industries of different industries, which are technologically and organizationally related. When forming such a structure in the enterprise, the continuity of the production process and all subsequent stages related to economic activity from the process of planning to production and sale of products with the subsequent distribution of economic benefits. Closing in a single cycle all the processes of economic activity of agricultural enterprises, it is necessary to form a single information database with a complex system of algorithms for solutions of continuous operation of such connections with maximum efficiency and optimal cost. The system of production and management of the agricultural enterprise organized in this way makes it possible to implement the model of a closed production cycle even in such a complex branch structure. Combining in one decision system the process of organization, production process and technological process, it is possible to ensure the maximum level of efficiency of management decisions. Applying the integrated structure of agricultural enterprises it is possible to implement it by :

1. forming links between separate business units in the form of a cluster, which will allow to implement a closed production cycle on the basis of such a combination of self-managing structural units in a single business plan within the contractual obligations;
2. forming integrated links between production units of one structure united by a special management apparatus.

We recommend choosing the organizational structure of enterprises depending on the size of enterprises and their technical, technological, intellectual and institutional support. The basis of the effectiveness of any system is the availability of tools for the implementation of the main business idea and the ability to use it in practice. Forming a closed production cycle, the activities of agricultural enterprises are combined with strong production links and technological process from the stage of production of agricultural products as raw materials to finished products needed by the consumer. Therefore, we consider it appropriate to use a hybrid integrated model when building such a model of business structure organization. A hybrid integrated model of the structure of an agricultural enterprise may include elements of both vertical and horizontal integration. Through the use of modern management tools

with elements of digital technologies in the organizational structure of the enterprise makes it possible to form a management system in a single database through integrated into a common chain closed process of production and supply. Such a model assumes, on the one hand, a high level of centralization of management, but with their distribution depending on the areas of activity and levels of hierarchy. The combination of a single resource management system in the supply chain between productions through automated accounting and management systems makes it possible to effectively allocate available resources and determine the need to form schedules for their additional involvement in order to continue production.

Quite effective in such a system is the development of a business plan for all stages of the closed production cycle and a single management system of such a structure. Forming a closed production cycle creates and accumulates added value at each stage of the production and sales chain. This approach helps to obtain the maximum economic effect by reducing the cost of production per unit of production by reducing costs for: management system, procurement of raw materials, increase productivity, reduce continuity in the supply system, timely management decisions, rapid response to changing market needs and based on economic conditions enterprises.

According to the normative legal act of Ukraine [1] it is stated that in the implementation of economic activity by the enterprise vertical integration involves the formation of a closed production cycle. In a closed production cycle, the activity within one production cycle involves the sequential transition of finished products obtained in one production process to the next, where it serves as raw material for the production of subsequent finished product with the maximum depth of processing.

The production and marketing process of agricultural production through its multi-vector activities (production of crop, livestock, horticulture, processing of different levels of depth, sales) implies the need to organize the production process so that the raw materials of one of the productions produced as finished products serve as raw materials. other production, closing the general chain of sales to the final consumer.

Today, in a period of difficult economic situation of residents of rural communities and institutions that operate separately and provided only with state funding, it is necessary to look for a mechanism of cooperation that will maximize economic benefits in the triad of elements "state-business-social sphere". We believe that it is the integration of agricultural production with the processing of products and the work of service associations that should form a strong cooperation with household services.

Forming such territorial formations, the implementation of the state strategy for the development of the state is focused on ensuring economic development, environmental security and increasing social guarantees.

By integrating the common goals of the development strategy with the definition of target indicators for each of the elements of the system, it becomes possible

to constantly monitor their implementation and timely identify possible deviations with the establishment of causes and development of measures to avoid them. When building an enterprise with a hybrid structure and a system of connections between all participants in the territorial formation, it is necessary to use an automated management system. Such a management system should have different levels of hierarchy of access to information resources of the general database.

Combining professional abilities and scientific developments of research and educational institutions, technical capabilities of enterprises and labor resources of households form a holistic production and economic and socio-economic system. In terms of vertical integration, such a hybrid combination is a combination of single management links into a single organizational-technological and production-economic process.

Thus, we investigated that it is possible to realize this by reformatting the organizational structure of modern enterprises into a model of vertically integrated enterprises with the implementation of the activities of highly specialized enterprises and households. Such a business transformation requires extensive microcredit. It is possible to provide it in the way of targeted business financing by a vertically integrated organization of small business projects of such participating households.

Agricultural enterprises with a vertically integrated structure can be of any organizational and legal form and form of ownership organized as a legal entity or as an individual. Such an organizational structure may have an enterprise that carries out economic activities independently, or exercises control over other legal or natural persons, or a group of such persons who may be directly or indirectly related to control, or operate separately in the cluster system, implementing only a common goal. The separate business units operating in the proposed system must operate in accordance with a clear plan for the implementation of the tasks, and perform at least one of the functions in the overall production cycle.

When enterprises or households operate in a system of vertically integrated business structure, each separate unit must have complete freedom of action, and be associated with the management structure only in terms of fulfilling existing obligations under the contract. Separate structural subdivisions of the vertically integrated structure (enterprises, sole proprietors, households) can be involved in the production process in the form of a closed production cycle. Such enterprises must act in terms of participation in the production cycle in accordance with clearly defined requirements that meet the points of the developed technological process and indicators of quality characteristics.

The activities of an agricultural association with a vertically integrated structure are often focused not only on the domestic market, but also on international cooperation. Therefore, such a business association must act not only in accordance with the requirements of domestic standards, but also implement the principles and rules of international quality standards, environmental safety standards and occupational safety and health standards.

The activity of an agricultural enterprise with a vertically integrated structure presupposes the fulfillment of the conditions of the state development strategy, including the strategy of sustainable development until 2030.

Each participating enterprise, which acts as an independent separate unit in the part not connected with the production cycle of the vertically integrated structure, can act at its own discretion, implementing its own business projects.

The activities of enterprises and households that are members of a vertically integrated structure in terms of fulfilling contractual obligations within the implementation of a common business idea should be controlled by the managing party.

Households and private agricultural enterprises can become members of a vertically integrated enterprise at the expense of investment resources provided by them, for the implementation of part of a joint business project.

Such an agricultural association with a vertically integrated structure, which acted as an investor for its members, should control the level of implementation of a certain part of the business idea in terms of its participation and part of its financial interests and determine the limits of debt obligations of participants included in such vertically -integrated business organization.

Self-employed entities that are members of a vertically integrated agricultural structure must have managers (directors) who will be responsible for their activities and for the economic, environmental, social and legal aspects of their economic activities.

Each of the participants of the enterprise with a vertically integrated structure must fully implement the developed program of compliance with the requirements of the controlling enterprise. All economic activities of such participants must fully comply with the identified technology, developed standards, approved parameters and requirements. The fulfillment of such obligations in terms of the implementation of the general business idea is mandatory for all employees and their contractors.

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FINANCIAL SUPPORT FOR THE DEVELOPMENT OF AGRO-INDUSTRIAL ENTERPRISES OF UKRAINE

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Abstract

The article clarifies the main features of the organization of finance of agricultural enterprises. Internal and external sources of financial resources of agricultural enterprises are considered. The composition and structure of financial resources of agricultural, forestry and fisheries enterprises are analyzed. The state of crediting of the enterprises of agrarian and industrial complex of Ukraine is found out. Banking programs in the field of lending to agricultural enterprises are described. The terms of crediting (purchase of new and used equipment and machinery) of agro-industrial enterprises have been clarified. The necessity of expanding the tools of interaction of the banking system with the agricultural sector of the economy is substantiated.

Keywords: financial security, financial resources, financial results, bank credits, crediting programs, leasing.

Formulation of the problem. The formation of preconditions for competitive and innovative development of agricultural enterprises is impossible without a sufficient level of financial security. Mobilization of financial resources in the amounts necessary for the domestic agricultural sector is possible only if the construction of a rational organization of financial relations at all levels: from small agricultural producers to large agricultural holdings.

Modern domestic practice of formation and use of financial support for the development of agricultural enterprises is characterized by instability of income sources, their small volumes. These problems are exacerbated by the volatility of the national currency, lack of financial resources, unresolved land reform, high competition in foreign and domestic markets, the dependence of agricultural producers on natural and climatic conditions. All this presupposes the need for scientific substantiation of effective forms and methods of attracting promising and unused sources of financing of agricultural enterprises to achieve high performance of their financial and economic activities and ensure financial stability of the agricultural sector of Ukraine in general.

Analysis of recent research and publications. Theoretical and practical aspects of financial support

for the development of agricultural enterprises were studied by scientists: L. Alekseenko [1], R. Bezus [2], L. Dikan [3], O. Zhydyak [4], K. Zakhohay [5], N. Levchenko [7], V. Matskiv [9-10], O. Oliynyk [11], M. Sokolov [17], P. Stetsiuk [18], N. Tanklevska [19], O. Tulay [20], I. Furman [22], M. Shchuryk [23] and others. Paying tribute to the significant contribution of these scientists in the study of the outlined problems, we consider it necessary to point out the need for further theoretical understanding and clarification of certain issues regarding the financial support of enterprises of the agro-industrial complex of Ukraine. In particular, the study and justification of the structural characteristics of the financial resources of agricultural enterprises, the mechanism of their mobilization and promising areas of financing of the domestic agricultural sector.

Formation of research goals. The purpose of the article is to assess the state of financial support for the development of agricultural enterprises of Ukraine.

Presenting main material. The agro-industrial complex as a sector of the national economy combines different types of economic activity in the production of agricultural products, food, as well as their transportation to the final consumer. It forms about 17% of