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## DEVELOPMENT OF A MODEL OF SUSTAINABLE DEVELOPMENT OF ENTREPRENEURSHIP IN AGRICULTURE

*The object of research is a model of sustainable development of entrepreneurship in agriculture. The work considers some theoretical foundations of the process of sustainable development and characterizes the main provisions of the model of sustainable development of entrepreneurship in agriculture. The research methodology is based on theoretical and methodological analysis of scientific literature, characteristics of the process of sustainable development and the formation of a model for sustainable development of entrepreneurship in agriculture. Also, description, analysis and modeling are applied and a combinatorial-logical approach is applied to build a formal model of sustainable development of entrepreneurship in agriculture.*

*The research results show that, taking into account the diversity in agriculture and the presence of various forms of management and property, the unifying factor in the process of sustainable development should be a model of sustainable development of entrepreneurship in agriculture. Various forms of farming in the countryside, under the influence of certain institutions and institutions, and using the available land resources, production and human capital, etc., grow agricultural products and ensure the country's food security. The process of sustainable development of entrepreneurship should provide for the use of energy and resource-saving technologies and focus on growing environmentally friendly products with constant social development of the region. This approach, in turn, will provide a multiplier effect, when constant small investments in social and intellectual capital, as a social component of sustainable development, and maintaining the environmental component at an appropriate level, will increase the level of production profitability and the development of the economic component of sustainable development. The practical significance of the research lies in the fact that the research results can be used as a reference material for researchers of entrepreneurship and the process of sustainable development, or for entrepreneurs themselves to plan their activities.*

**Keywords:** *sustainable development, model of sustainable development of entrepreneurship, environmental component, social component, economic component.*

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### 1. Introduction

Formation of competitive agriculture on the world market and its activity in the plane of sustainable development requires the introduction of resource-saving and resource-saving technologies into production. This is facilitated by an increase in the level of investment in entrepreneurship in agriculture and their use to build up material and intangible resources. In addition, there is also an increase in the level of production efficiency by improving the structure and interaction of means of production and increasing the level of their use in the manufacture of products.

To this end, entrepreneurial investment in agriculture should be cyclical, continuous and self-contained. Then a high efficiency of reproduction of resources and production potential can be achieved. An increase in investment is also facilitated not only by the implementation of complex investment projects, but also by investing in the processes of implementing individual measures without preserving the investment cycle as a whole. Such investments should cover the entire system of production resources and ensure an increase in the efficiency of their use.

Most scientists refer to this type of investment as the costs incurred by entrepreneurship in the course of its activities, which, according to the researchers [1], ensures the accumulation and deepening of knowledge, the growth of human capital potential, and leads to an increase in innovation potential.

Thus, it is the issues of scientific substantiation of the relevant innovative directions for sustainable development of entrepreneurship in agriculture that become relevant. And coverage of sustainable development areas is impossible without characterizing the model of sustainable development of entrepreneurship in agriculture. The study of the sustainable development model itself in scientific circles is very rare. In particular, the author of [2] reveals the very process of forming an investment and innovation model of sustainable development, and the authors of the study [3] characterize the modeling of indicators of sustainable development. But the issue of the model of sustainable development of entrepreneurship remains poorly covered. Therefore, the object of research is a model of sustainable development of entrepreneurship in agriculture, and the aim is to re-

veal some characteristics of the model of sustainable development of entrepreneurship in agriculture.

## 2. Methods of research

To achieve this aim, the analysis of scientific publications on the theory of entrepreneurship, sustainable development and economics in terms of the characteristics of the process of sustainable development and the formation of a model of sustainable development of entrepreneurship in agriculture was used. Also in the process of research were used induction – to characterize the sustainable development of entrepreneurship as part of a global phenomenon and deduction – in the characterization of the model of sustainable development of entrepreneurship in agriculture.

Among the main dialectical methods of cognition, a description was also used in terms of highlighting the characteristics of the components of the model.

## 3. Research results and discussion

Sustainable development is defined as a form of interaction between society and nature, in which the survival of mankind and the preservation of the environment is ensured, current generations provide their vital needs, without depriving future generations of the opportunity to also satisfy their own needs.

The sustainable development system assumes that renewable resources should be used where possible, and the use of non-renewable resources should be abandoned (for example, reduce mining and start recycling). These approaches involve a combination of different social, environmental and economic goals. Most scientists in the characteristics of sustainable development put social and environmental goals along with economic goals. Prior to the emergence of this concept, environmental protection and economic development were mainly understood as separate and competing areas, with scholars talking about trade-offs between competing goals of growth and resource degradation. Subsequently, these two separate directions of development were reconciled through a detailed analysis of values that were not previously taken into account, through a detailed analysis of costs and benefits, or by providing procedural protection through regulation [4].

On the other hand, sustainable development assumes that society can provide for all its problems and develop in such a way as to meet all three goals (social, environmental and economic).

Given the current patterns of resource use, it becomes obvious that they remain for a very short time, even assuming that technological progress is advancing rapidly and the rate of economic growth should be sharply reduced. The modern industrial economy in some cases is unable to reduce the rate of economic growth and resource consumption, and sometimes does not want to do this, because they consider economic growth as the main way to improve the social situation of their countries. Because of this contradiction, the author of [5] assumes that sustainable development is really an oxymoron (a literary and poetic device, which consists in a combination of contrasting concepts that are opposite in meaning, which together give a new idea). The authors of the work [6] adhere to the same opinion. At the same time, some scientists also, namely

the authors of the study [7], argue that the concept of sustainable development fundamentally contradicts the dominant model of capitalism and its emphasis on unrestrained growth. They argue that achieving sustainability will require significant slowdown, if not cessation of development.

In response to this criticism, many hold to the possibility of large-scale economic and social transformation through innovation. Many are developing entrepreneurship to provide leadership in innovation and more sustainable products and services. Others are skeptical about existing businesses and believe that the changes that can occur can be driven by entrepreneurs. Let's believe that it is entrepreneurship that is the creator of the economy and sustainable development of entrepreneurship in agriculture can ensure the transition from an industrial to a green economy.

Many proponents of a green economy [8–10] argue that entrepreneurship development can stimulate rather than inhibit economic growth and create more jobs than other forms of business. WWF claims that 400,000 new low-carbon energy jobs are being created in Europe, and the potential is greater in the United States given its pace of development and greater demand for energy [8].

But despite the controversy surrounding entrepreneurship and the sustainable development process, it is the latter that has become the trend in entrepreneurship development. And in this case, environmental responsibility comes to the fore. Entrepreneurship that adheres to it is gradually starting to get the opportunity to increase income. They define the financial benefits of investments in sustainable development such as:

- better access to certain markets;
- differentiated products;
- income from the sale of green technologies;
- better risk management and relationships with external stakeholders;
- lower cost of materials, energy and services;
- lower cost of capital;
- low cost of labor [11].

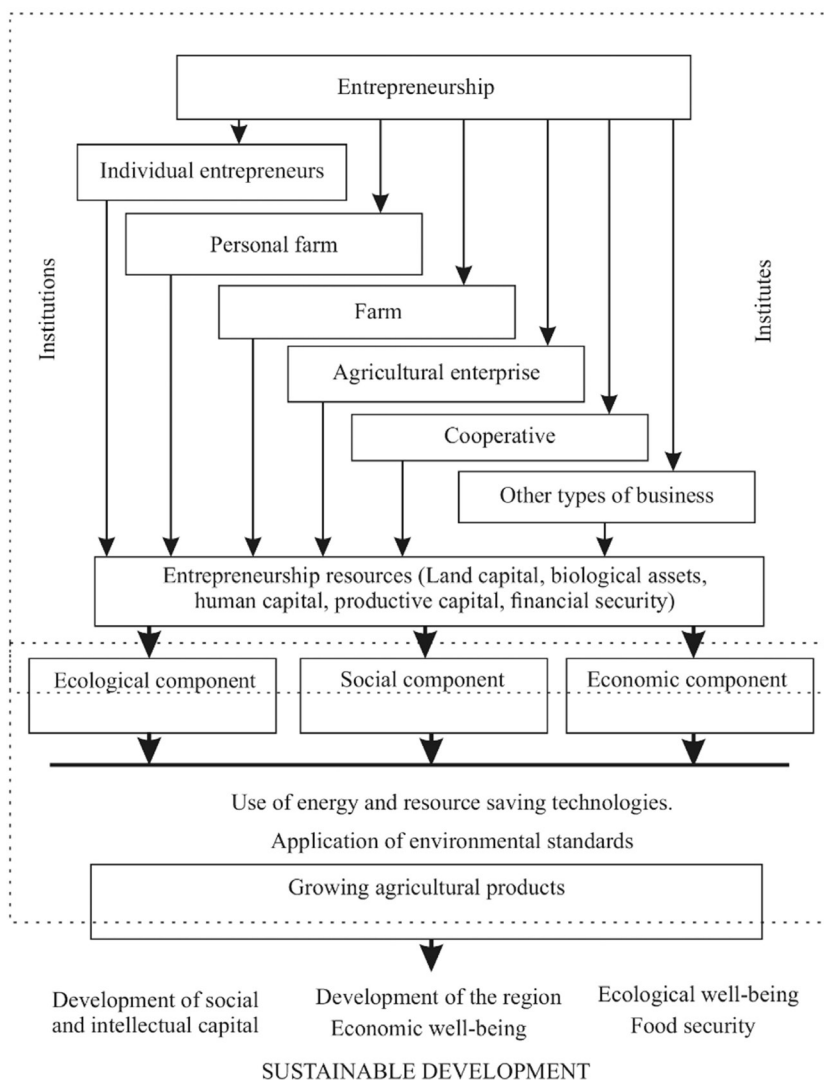
A small number of scholars have researched sustainable development by focusing on entrepreneurship. Some studies based on Schumpeter's concept [12] of «creative destruction», arguing that entrepreneurship, which realizes the concept of sustainable development, creates different types of products, opening up opportunities for new entrants [13]. These authors define entrepreneurship as a means by which market failure and environmental and social issues can be overcome. Therefore, the issue of entrepreneurship activities in agriculture comes to the fore in order to ensure food security and the process of sustainable development itself at the proper level.

The activity of entrepreneurship to ensure the process of sustainable development is impossible without a clear plan according to which this should take place. Taking into account the diversity in agriculture, the presence of various types of entrepreneurial structures and various forms of ownership, such a unifying plan can be models of sustainable development of entrepreneurship in agriculture.

The presence of different forms of land ownership and land use in the economy form the composition of entrepreneurship in agriculture, and is the basis of this diversity. World practice shows that in agriculture, different types of entrepreneurship, different in size and type of ownership, function effectively:

- entrepreneurial structures of various sizes (small, medium and large), based on various forms of land ownership or even on its lease;
- farms and family farms;
- personal (peasant) farms, individual entrepreneurs and households;
- agricultural cooperatives, holdings and corporations and the like.

All of them have equal rights in relations with the state, other entrepreneurs and organizations. In accordance with this, the model of sustainable development of entrepreneurship in agriculture can be characterized as a combination of all economic entities in agriculture to ensure sustainable development (Fig. 1).



**Fig. 1.** Model of sustainable development of entrepreneurship in agriculture (developed by the author)

All business entities, under the influence of institutions and institutions and using the available land resources, production and human capital, direct their activities in agriculture to the cultivation of various biological assets – agricultural products. This process should ensure the use of energy and resource-saving technologies and direct efforts towards the cultivation of environmentally friendly products. In addition, the priority is also to ensure the development of the region

where the products are grown and the entrepreneur itself lives. This will improve socio-economic relations and ensure the development of social and intellectual capital. This approach, in turn, can have a multiplier effect, when constant small investments in social and intellectual capital, as a social component of sustainable development, and an environmental component at an appropriate level, will increase the level of production profitability.

The very process of sustainable development of entrepreneurship should be clearly regulated by institutions and institutions to ensure the overall process of sustainable development of agriculture as a whole.

The way to achieve the ultimate aim, sustainable development, is possible only if the illuminated model is implemented by all forms of farming in the countryside and with the involvement of all the resources and capital that the entrepreneurial structures have in this process.

#### 4. Conclusions

In the course of the study, a model for sustainable development of entrepreneurship in agriculture was developed. The proposed model describes a mechanism that characterizes the process of sustainable development. To achieve the main aim – sustainable development, various forms of farming in the countryside, being under the influence of certain institutions and institutions, using the resources of the ecological, social and economic components, grow agricultural products. All business activities in agriculture ensure the development of regions, social and human capital, food security and sustainable development in general.

The research results will be useful in the study of sustainable development of entrepreneurship in agriculture. The model of sustainable development of entrepreneurship will be useful for entrepreneurs themselves when assessing their own situation and future prospects.

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## DEVELOPMENT OF MODERN DIRECTIONS OF ESTIMATOLOGY IN THE ECONOMIC SECURITY OF THE ENTERPRISE

*The object of research is the process of developing directions in estimatology of the economic security of an enterprise. Multiple objects are taken into account in the estimatology of economic security. It is revealed that the presence of many approaches to determining liminal (recommended, desired) values when assessing indicators of economic security is due to their multitasking. It is substantiated that the detected multitasking generates multilevel and multi-persistence of economic security. The property of variability of the degree of rigidity of the liminal (recommended and other) values of indicators is shown. The essence of the triple nature of acceleration (deceleration) of an enterprise is revealed. The use of critical time in the algorithm for assessing the state of economic security is proposed. An ambivalent approach to management decisions and activities of an enterprise in terms of their impact on economic security is determined. The features of taking into account the impact of the security of the company's stakeholders on its economic security are formulated. It is substantiated that the most influential liminal value of the personnel safety indicator is the salary in the replacement country, adjusted for the amount of rental payments and the difference between food costs in the replacement country and Ukraine. It is determined that overpaid dividends, and not their lack, have a greater impact on the safety of the enterprise. Differences in assessing the level and state of economic security (the level and state of its formation and provision) in the current and medium-term periods are systematized. It is substantiated that the key difference between the current and mid-term assessment is the use of technical indicators in the latter. It is proposed in assessing the level of security, which is based on the amount of shortage of profit before tax, to use the appropriate models for converting technical indicators into economic ones. The expediency of the symbiosis of functional and process approaches in assessing economic security is shown. The result of this research is the developed new directions in the estimatology of the economic security of the enterprise. The application of the developed directions allows a more comprehensive and systematic assessment of various objects of economic security, both in the current and in the medium term.*

**Keywords:** security level, security state, security formation state, security indicators.

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### 1. Introduction

The estimatological aspect of economic security in foreign studies can be reduced to two key areas. The first

characterizes the safety of households [1, 2]. The second direction corresponds to a thorough and comprehensive coverage of the country's economic security in the context of its national security [3]. The economic security