

## COMPETITIVE ADVANTAGES OF FARMING ENTERPRISES IN UKRAINE: A METHODIC APPROACH TO DIAGNOSTICS OF THE ADDED VALUE OF PRODUCTS

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### Abstract

*The research sets the aim to argue theoretical fundamentals and outline the methods to make diagnostics of the added value of products, produced by farming enterprises. To determine reserves for improvement of competitive advantages of farming enterprises the work proposes to use an analytical instrument, called a “value chain”. The instrument helps to interpret production potential as a basis for the chain of values, which creates the added value. Applying the instrument, the research suggests that the structural indicators of the added value of farming enterprises demonstrate distortions, which are manifested in neutralization of a socially important element, i.e. labor payment, and in prevailing of a commercial constituent, i.e. profit. It is forced by inappropriate branch structure of large agricultural enterprises. Consequently, efficiency of the added value according to its reproductive capacity is higher at large farming enterprises, and according to the social focus – at family farms. It means that large farming enterprises have better reproductive capabilities and higher competitive advantages. At family farming enterprises of Ukraine, the added value can be increased and competitive advantage can be improved by means of valorization of their products basing on innovative activity. Such approach secures production focus on narrow markets and on specific needs of some individuals. It also creates preconditions for modernization, economic growth and improvement of competitive capacity of farming enterprises.*

**Key words:** farms, competitive advantage, benefit, value chain.

### INTRODUCTION

For most farming enterprises, it is reasonable to organize processing and sales of their products by themselves. In other words, they should bring valorization of the ready products to the conditions, which secure a higher degree of competitive capacity [2, p. 263-264]. Supply of the products with higher added value is a specific direction both to improve competitive capacity, and to reproduce production potential of farming enterprises with small land area [4, p. 278]. In that case, farming enterprises can dictate purchase prices, amounts of supplied products, delivery terms, standards, etc. Then, most of the total profit, which is got at all stages of production process, will stay at the farms. Thus, while creating added value and determining perspective directions of the process, it is important to use the conception

of the “chain of value creation”, as an analytical instrument of the diagnostics of competitive advantages of farming enterprises. The conception is proposed by Michael Porter for deeper understanding of the processes, which happen inside an enterprise [5, p. 178-179].

Considering the mentioned problems of farming enterprises performance in Ukraine, one should note that supply of unique products with a high added value is the precondition for competitive advantages of the enterprises. Farming enterprises are interested to study the issue of added value concerning possible higher benefits of their products sales, and thus, more earnings.

Everything mentioned above argues timeliness of the research topic and requires development of scientific and methodic approaches concerning diagnostics of the added value of products in order to find out

reserves for improvement of competitive advantages of farming enterprises.

## MATERIALS AND METHODS

Among the methods of scientific cognition, used for specification of the methodic aspects of diagnostics of the added value of products, as the instrument for detection of competitive advantages of farming enterprises, the research considered the following ones, particularly, a structural-logical method – to create the added value in the value chain and to model relations, developed between structural indicators of the added value of farming enterprises; method of grouping – to make differentiating distribution of farming enterprises according to the criterion of land use in order to examine tendencies concerning indices of the added value at Ukrainian farming enterprises; economic diagnostics – for assessment of creation and use of products added value at farming enterprises; monographic method – for examining of peculiarities concerning creation of added value in the products' values chains, using the example of a definite farming enterprise, i.e. cheese factory; graphic method – for visual presentation of the research results.

The key element of the present research, particularly the added value indicator (*AV*), expects the following constituents, i.e. depreciation of capital assets (*D*), salary of employees (*SE*), profit (*P*) and specific charges (*C<sub>s</sub>*). In the research, it means payment for land lease.

Added value of products is calculated by the formula:

$$AV = D + SE + P + C_s$$

## RESULTS AND DISCUSSIONS

The value chain of a farming enterprise is a process aiming to creation the values of a product, a set of the economic activities, which is often outside the internal production, and includes a total of material and non-material expenditures, which create the principal and added values. The Porter's chain

or the chain of values (Value Chain) is a modern effective instrument to assess competitive capacity at micro and meso levels, as well as an instrument to find out potential sources for creation of higher values for consumers [6, p. 2]. Scientists affirm that, for the last fifty years, number of transitive stages in the value chains has considerably transformed the global economy character and substantially influenced countries of the world [3, p. 70]. Supermarkets try to control the full process of production, starting from growing and gathering of agricultural products, to meet the standards of food products quality during the full value chain. The theory of logistic chains confirm that the one, who manages the chain, dictates proportions of the added value distribution between the chain links [1, p. 362].

A competitive advantage is defined as a benefit, which a consumer obtains (better quality, lower price), or a way the benefit is obtained (higher qualification of personnel). Consumers are interested in an opportunity to buy products of good quality at a rational, the lowest possible, price.

Thus, added value is an internal resource of a farming enterprise and a precious analytical indicator for the diagnostics of competitive advantages of an individual enterprise and groups of them according to size factors of their land use. The feature is concerned in the current research. Concerning farming enterprises, the added value performs such key functions, as social and commercial ones. Added value is expected in the amount, being sufficient to pay staff for creation of the value and to secure reproduction. One should note that the added value index, which maximum concerns economic interests of farming enterprises in the context of their competitive advantages, is not used in assessment of economic activity of those subjects of agrarian business. Traditionally, profit is a principal indicator for assessment of farming enterprises efficiency at micro and macro levels.

Scientific works give numerous interpretations and definitions of the studied notion, mainly multi-faceted ones.

Particularly, a relation of new-created value with its material carrier, i.e. definite kind of product or commodity, is a peculiarity of the added value, taken from the position of accounting. Current interpretations of the added value have come to the conclusion that it is the value of a sold product, minus cost of materials, which have been bought and used for its production [7]. It means that added value is a share of earnings, which consists of salary, lease payment, bank interests, depreciation cost and profit. A slightly different approach to interpretation of the nature of added value is supplied in the business dictionary. It says that it is the value, which is created in the process of production at an enterprise and depicts its actual contribution into creation of some products value [8]. It is the determined difference between the value of agricultural products, produced by a farming enterprise, and the value, which is created by other producers in the previous cycles of production. Thus, the authors of the article consider that rise of the competitive advantage of farming enterprises should be focused on valorization of high quality food products.

Added value is a multi-functional indicator and it should be used in the current research. Logics of the scientific research confirms consistency of the diagnostics of added value, which is at the stage of its creation, and while using he products. The list of indicators used to assess the added value at farming enterprises include those, which are relevant for the purpose, particularly a share of the added value of products, produced by farming enterprises, and the degree of reproductive profitability of those products.

It is a known fact that farms with small land area supply small output of agricultural products. It results in a lower profitability of their performance. However, the main motivation of farmer's work is even not to obtain a profit, but to keep his/her family. That goal is of much higher responsibility. Thus, the small amount of products, proposed by a small farmer at the market, should be competitive and have higher added value.

Traditional approach to the added value defines that it can be increased by agricultural products processing with the use of production infrastructure, particularly conservation, packaging, sorting, etc. However, each stage of the technological process, except for increase of the added value, requires larger material expenditures, which, somehow, neutralize effect of the increased share of the added value. Moreover, organization of production infrastructure requires capital investments, while farmers feel lack of cost. Thus, farming enterprises can increase their added value supplying the market with the products of unique characteristics, but the least material expenditures. Such characteristics first include natural, fresh qualities of the products, high food qualities or possess the features of a niche business. At the markets of affluent consumers, such products are very popular, particularly if it is possible to keep them fresh and natural for a longer period. Primary importance of a value chain is to supply those qualities and advantages for a consumer. Thus, a farming enterprise, which performs according to the rule "just in time" in the process of agricultural production, packaging and shipping of the product, actually adds to the value of its products in the consumers' mind. For a farmer with a low level of material and technical resources, it is a winning variant, because introduction of such order can secure reproduction of production potential without expenditures.

The share of added value in products output suggests an objective assessment of the level of vertical integration at the farming enterprises of different sizes. Figures of the proposed indicators are determined both percentagewise and in ratios, and stay within the range from 0 to 1, where 1 is a maximum possible level of vertical integration at a micro level. In contrast, the added value profitability points which share is taken by a profit. Fig. 1 demonstrates that diagrams of the studied indicators are placed and turned in the direction of medium-size and large farming enterprises, i.e. employing from 20 to 500 ha and more. It means that large farming

enterprises, which gradually obtain the features of a corporative sector, demonstrate a commercial focus of their agricultural business, i.e. they operate with the continuous efforts to maximize their profit.

Thus, the groups of medium-size and large farming enterprises mainly consider the added value as a profit.

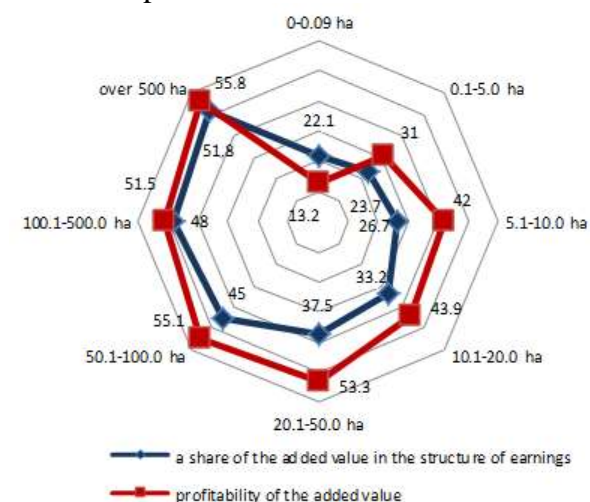


Fig. 1. Structural indicators of the added value of products, produced by farming enterprises of Ukraine, grouped referring to the criterion to the area of arable land in 2017, %

Source: calculated and designed with consideration of the information supplied by the State Statistics Service of Ukraine (form 2-farms).

Moreover, they often identify the two notions. In contrast, for a self-employed farmer, labor profit is the most important factor. In their structure of added value, the share of profit is much smaller, i. e. from 13.2 % at micro farms to 42.0 % at family farms. In that case, it is important for large and small farming enterprises to cooperate within one rural community. It is a good example of not only partner relations, but of consolidated efforts to develop rural territories. Large and small farming enterprises can amalgamate into cooperatives, for example of meat specialization. Under support of the state and local authorities, the cooperatives can build production facilities, where farmers, which are members of the cooperative, can use the facilities of meat parceling and vacuum packaging, etc.

Level of reproductive profitability of the added value of products, produced by farming enterprises, confirms a potential to the value

increase. It also shows efficiency of use of production potential for reproduction. The level of reproductive profitability can also belong to the group of competitive capacity indicators. It determines amount of the added value per a unit of expenditures for production of products and services, supplied by farming enterprises. The indicator of reproductive profitability of the products of farming enterprises usually demonstrates a higher figure than the indicators of products profitability.

Thus, Fig. 2 demonstrates that the level of the indicator is higher at farming enterprises with the area of above 500 ha. Large farming enterprises have better reproductive capabilities due to prevailing of a commercial factor (profit) in the added value configuration.

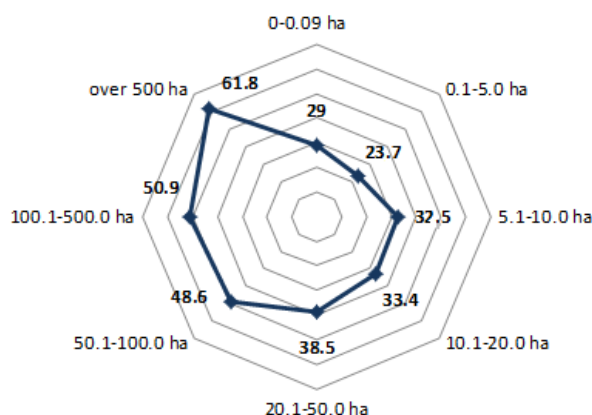


Fig. 2. Level of reproductive profitability of the added value of products of farming enterprises in Ukraine, grouped according to the employed area of arable lands in 2017, %.

Source: calculated and designed, basing on the information, supplied by the State Statistics Service of Ukraine (form 2-farms).

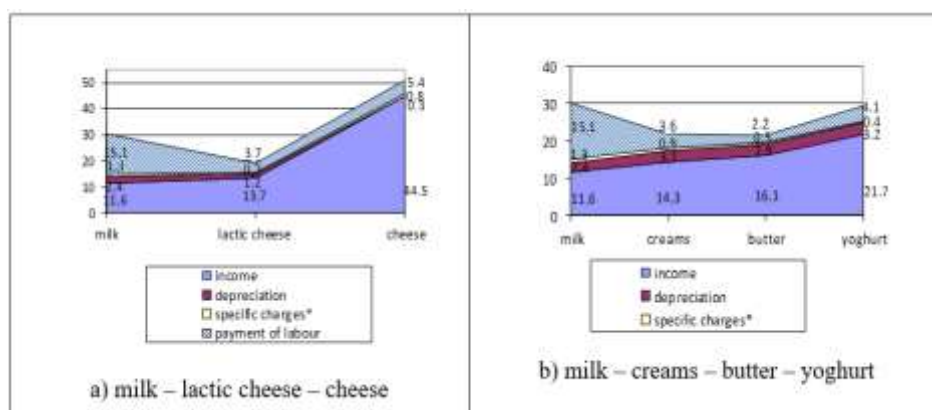
The following calculations confirm that the level of labor consumption (i.e. a relation of the figure of labor payment to the added value size) vividly demonstrates a prevailing position of a social vector of the added value at small farming enterprises, employing under 50 ha of arable lands. Thus, large farming enterprises have a better capability to generate higher added value, usually due to maximization of profit. That capability is a particular feature of productive potential, and, along with its resource element, it secures a

higher level of competitive capacity of products and a sufficient progress of the reproductive process of material and technical component of productive potential. In contrast, a human factor of large farming enterprises has almost no chance for reproduction.

Thus, the process of the added value creation for products, produced by farming enterprises with an adequate correlation of social and commercial constituents, requires a controlled and regulated process of valorization, carried out with the use of appropriate innovative technologies and attraction of productive infrastructure, particularly sales area, storage premises, packaging lines, refrigerators, etc. Innovations, e.g. energy-saving technologies, make great contribution to increase of the added value due more stages of agricultural products processing, and vice versa, by minimizing of them.

The added value diagnostics in the chain of values of dairy products is considered from the position of transformation of material

expenditures and intermediate products into the products of ultimate consumption. Fig. 3 demonstrates that at a definite technological point (concerning milk processing), one observes separation into several kinds of products. Then, each kind of dairy products is promoted to the market, creating personal chain of values. In the current research, the mentioned direction enables identification of the kinds of dairy products. Added value of those products helps controlling and coordinating of a competitive advantage. Increased cost of energy carriers, materials and services for animal breeding, are the reasons of less profit at the stage of milk production at a farming enterprise. In dairy products, commercial vector of the added value is increased by supplying unique competitive qualities to ultimate products, particularly cheese. Vertical integration and personal retailing secure one of the principal factors for the added value creation, i.e. food freshness.



\*for milk, payment for lease of land shares is a specific expenditure, and for dairy products - it is a payment for veterinary expert report.

Fig. 3. The added value creation in the value chain of dairy production at the farming enterprises “Ahrotem” and private cheese factory “Dzhersei”, average for 2017, %.

Source: calculated and designed, basing on the information of the farming enterprises “Ahrotem” and private cheese factory “Dzhersei”.

## CONCLUSIONS

Focus of domestic agriculture on export of raw material prevents perspective development of family farming and suppresses its competitive position. Farming efficiency, in terms of rise of a competitive advantage, can be influenced by the process, focused on valorization of food products of

high quality. Results of the research confirm that degree of the vertical integration and valorization of the products of family farming enterprises of Ukraine is much higher as compared to large enterprises. Level of the indicators of efficiency of the added value creation at large farming enterprises suggests that those farms have better reproductive capabilities due to prevailing of a commercial

vector in the added value configuration. Figures of the indicator of labor consumption of the added value are distributed in the way confirming a prevailing position of a social vector of the added value at family farms.

Application of vertical integration and innovative technologies suggests minimization of the number of processing stages for the products, produced by farmers, and reduction of the period of their delivery to consumers. Thus, it helps not only to achieve an adequate combination of social and commercial vectors of the added value configuration, but also to supply consumers with new ecologically clean and nutritive balanced products and goods.

## ACKNOWLEDGMENTS

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