

ASSESSMENT OF THE POTENTIAL OF AGRICULTURAL REGIONS AS A PREREQUISITE FOR THE FORMATION AND DEVELOPMENT OF THEIR BRANDING

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Abstract

The theoretical and methodological principles of assessing the potential of agricultural regions as prerequisites for the formation of territory branding strategy are considered. The stages of using the branding of the agricultural region as a strategic development tool and the components of the brand of the agricultural region in the context of developing a branding strategy are determined. The importance of taking into account the complexity of the use of potential components and their impact on the competitiveness of the region has been updated. The list of problems, the solution of which is aimed at the use of the branding strategy of the agricultural region, is defined. A methodical approach to assessing the potential is proposed based on the definition of the synergistic agricultural potential of the region, which acts as a comprehensive indicator that unites a wide range of resources of the region's agrarian sector. The components of the synergistic agrarian potential, which include indicators of labor, economic and resource potential, are substantiated.

Keywords: *agricultural region, branding, brand of the region, regional development, potential, agriculture, strategy.*

JEL Codes: *Q18, R14.*

Introduction

Globalization processes are a significant factor in intensifying the competitive struggle for natural, labor, investment, and intellectual resources of both enterprises, cities and regions, however, in order to ensure dynamic development and attract relevant resources, it is necessary to create favorable conditions for life and business. Thus, in recent years, such a competitive tool as territory branding has become relevant. Most often, a territory brand is considered as a set of values that reflects the unique characteristics of a separate territory or region, which have gained wide recognition and have corresponding consumer characteristics. Therefore, it is appropriate to consider the territorial brand as a basic resource

of regional development. Most often, the main brand-forming factors include geoclimatic resources, natural resource potential, opportunities for the development of certain branches of the economy, cultural features, political stability and the development of social infrastructure. The combination of these factors determines the quality of life of citizens and favorable conditions for doing business, thereby ensuring the attractiveness of the region for investors, residents and tourists. Effective territorial branding is one of the priority tasks of the regional socio-economic policy, and the promotion of the territorial brand should be part of the regional development strategy, as it is the basis for the development of foreign economic

out. Scientists (Beckmann Von Jdrgenet al., 2023) investigated the peculiarities of agricultural production, the potential level of self-sufficiency and climate balances of different food scenarios.

Articles (Orimoloye Israel R., 2022; Gaglio Mattias et al., 2021) consider the risks of agricultural drought and its potential consequences, and model the ecosystem service of providing agricultural waste for bioenergy production. The basis of scientific work (Popelo O. et al., 2021; Grosu V. et al., 2021) is the development of a strategy for the formation and development of an innovative agro-industrial cluster of the region and the conceptualization of the model of financial management in agriculture. According to studies (Kumar Pardeep et al., 2021; Kazambayeva A.M. et al., 2019), the authors analyzed the existing limitations and potential of agriculture in the region, studied the sustainable development of agricultural production based on the use of the resource potential of the region.

However, the implementation of branding as a strategic tool of regional development should be based on scientific and methodological approaches, which, reflect the assessment of the prerequisites for the brand development of the territory, the identification of strengths and competitive features of agricultural production, which actualizes the conduct of additional research in the direction of assessing the potential of the agricultural region.

Methodical approach

The article proposes a methodical approach to determining the synergistic agricultural potential of the region, which involves the calculation of a complex indicator based on the separation of resource, labor and economic components. The implementation of this approach involves the use of only relative indicators to ensure agreement and comparison.

The synergistic potential of the agricultural region can be calculated on the

basis of the integral indicator of the synergistic potential, which is determined by the following formula:

$$I = \frac{S}{S_r}, \quad (1)$$

where S_r — radar area corresponding to the synergistic potential of a separate agricultural region;

S — the total area of the evaluation polygon.

The radar area is determined by the following formula:

$$S_i = \sin\left(\frac{360}{n}\right) * \frac{(A_1A_2 + A_2A_3 + \dots + A_nA_1)}{2}, \quad (2)$$

where n – number of radar axes (number of indicators used for evaluation);

$A_1 \dots A_n$ - coordinates of indicators on the corresponding axes.

The area of the evaluation polygon is determined by the formula:

$$S = \frac{1}{2} R^2 n * \sin\left(\frac{360}{n}\right), \quad (3)$$

where R - the radius of the circle.

Results

The topic of branding of agricultural regions is relatively new. Modern scientists have not yet arrived at a single universally accepted definition of branding, the scientific search in this direction continues and is quite active. However, leading researchers agree that using a brand as a tool for regional development allows:

- to increase investment income, both domestic and foreign, and promote the activation of state support;
- stimulate the development of integration associations, in particular clusters, including cross-border ones;
- contribute to the improvement of the demographic situation in the region, by attracting new residents and creating conditions for quality living, thus stimulating the formation of qualified labor resources.

Considering the specifics of branding of agricultural regions in particular, the main factors of forming an image strategy should include natural and climatic resources, geographical location, availability of labor potential, since the components of the brand of an agricultural region can be both the direct development of agricultural production and the transition to the principles of a “green economy”, that is, the production of environmentally friendly food products that meet the needs of certain categories of the population, as well as “green” tourism. The use of the branding of an agricultural region as a strategic tool for development involves the sequential implementation of the following stages:

1. Assessment of the region's potential, analysis of the influence of external and internal environmental factors, assessment of strategic positions for the development of the agrarian sector.

2. Study of the need for brand development, assessment of cooperation opportunities at the interregional and interstate levels, clarification of the key advantages of the agricultural sector

of the region for the formation of a brand platform.

3. Formation of the structure responsible for the development of the brand, development of the concept of using the agricultural potential of the region as the basis of the regional brand to achieve the goals of strategic development with the involvement of public representatives, educational institutions, business structures.

4. Development of measures aimed at increasing the level of investment attractiveness of the agricultural sector.

5. Development of a branding strategy and its approval by relevant state structures.

6. Assessment of strategy implementation on the basis of appropriate monitoring measures.

The branding strategy of the agricultural region is a component of the general strategy of regional development and involves the development of the following components of the region's brand: consumer sub-brand, managerial sub-brand, investment sub-brand, social sub-brand, each of which has its own influence on the processes of meso-development (Figure 2).

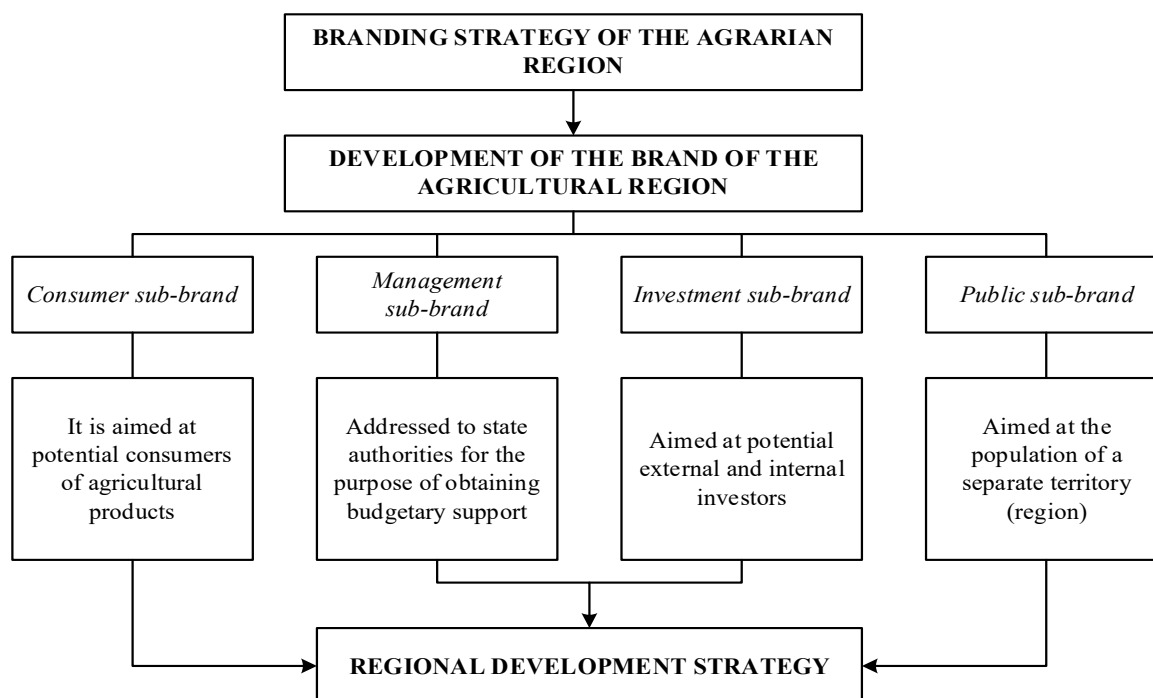


Figure 2. Brand components of an agricultural region in the context of branding strategy development

**Source: developed by the authors.*

The development of the potential of agricultural regions is of great importance for the national economy of Ukraine, as it acts as a significant factor in strengthening socio-economic development. Thus, by the end of 2021, the area of agricultural land in Ukraine was the largest in Europe and amounted to 41.5 million hectares or 70% of the total territory, of which 32.5 million hectares were devoted to agricultural crops. It is appropriate to single out the following key approaches to characterizing the potential of agricultural regions:

- the connection of the potential of the agricultural region with the level of modernization of agricultural production and the degree of technological innovation, the development of the sales system, logistics networks, and the organization of management activities;

- the potential of the agricultural region is considered as a lever for reducing the differences between backward rural regions and regions with a tendency towards stable development dynamics;

- the potential of the agricultural region is a determining factor of competitive advantage through the consolidation and effective use of all resources of the region (labour, natural and climatic, financial, landscape, etc.).

In the context of branding of agricultural regions, the most complete essence of the potential of an agricultural region as a basis for the development of a regional brand, from our point of view, reflects the combination of the second and third approaches, which makes it possible to take into account the complexity of the use of potential components and their impact on the competitiveness of the region. Therefore, a comprehensive approach to assessing the potential uses the possibilities of territory branding in the broadest sense.

Authorities at the regional level act as a regulatory mechanism that stimulates the branding process of the agricultural region, helping to solve the following tasks:

- ensuring food security in the context of the country's national security;

- improvement of the quality of life of the region's population;

- solving the problem of unemployment by developing agricultural business and creating new jobs;

- resolving issues of youth migration, creating conditions for the social infrastructure development in rural areas.

In the conditions of the transition of the regional policy of the agricultural sector development to the concept of branding of an agricultural region as such, which makes it possible to combine micro- and meso-management of agricultural production, the existing approaches to assessing the potential of agricultural regions require additional elaboration. In this context, we consider it expedient to carry out a comprehensive assessment of the potential, which in the future will make it possible to determine the priority areas of branding and to compare the level of competitiveness of individual regions.

The main component of the potential of agricultural regions is the availability and integrated use of the main types of resources. The complexity of the use of the resource base presupposes the inseparability of individual types of resources from each other, since, for example, the effective use of the labor potential of an agricultural region is impossible without the available natural resource opportunities and the production and technological base, the development and renewal of which, in turn, becomes possible under the condition investment activity. Thus, we consider it appropriate to single out the synergistic agricultural potential of the region, which acts as a comprehensive indicator that combines a wide range of resources of the agricultural sector of the region, which are able to provide attractiveness in the context of forming a branding strategy. The use of a single indicator, which acts as a criterion for the synergistic effect of the use of the region's agricultural potential, allows to single out the resource, labor and economic potential as components. Accordingly, the synergistic agricultural potential of the region depends on

the potential characteristics of social, economic and ecological regional systems.

The assessment of the synergistic agricultural potential of the region involves the selection of those indicators that most comprehensively characterize the development of the agricultural sector in the context of the branding strategy, and their grouping as follows (Table 1). For the analysis, the regions that, according to the results of 2022, were included

in the TOP-3 in terms of the level of development of agricultural production, were selected: Vinnytsia, Poltava and Khmelnytskyi regions. The analysis of the level of synergistic agricultural potential was carried out as of January 1, 2023. The main agricultural crop of these regions is sugar beet, which is reflected in the calculation of the index of the production dynamics of the main agricultural products.

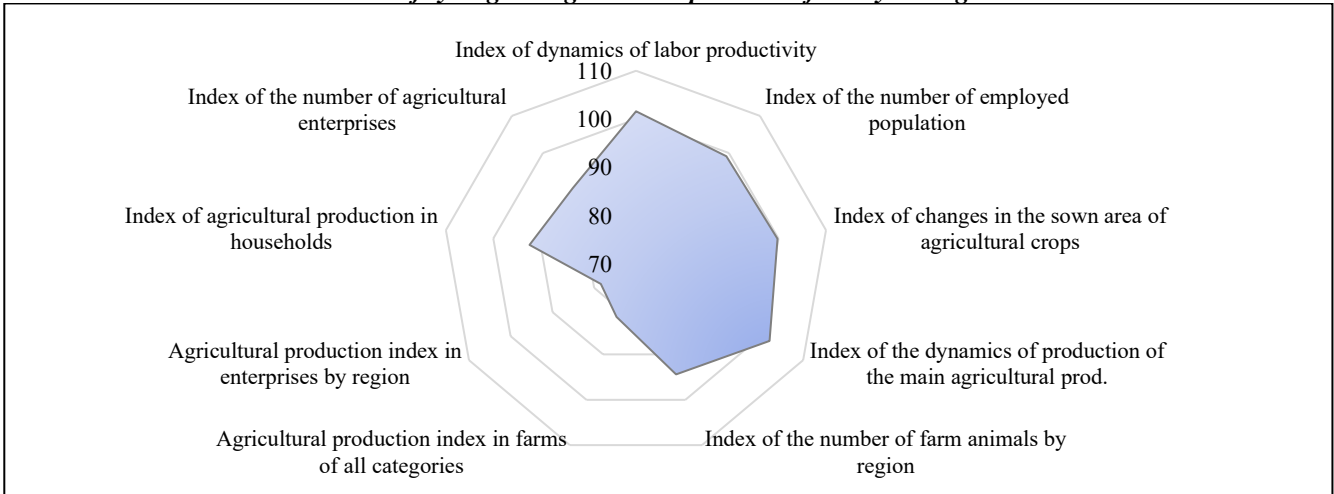
Table 1. System of indicators of synergistic agricultural potential of the region

No.	Indices of synergistic agricultural potential components (compared to 2021)	Vinnytsia region	Poltava region	Khmelnytskyi region
Labor potential				
1	Index of dynamics of labor productivity in agricultural enterprises	101.6	100.4	99.4
2	Index of the number of employed population	99.1	103.0	96.3
Resource potential				
3	Index of changes in cultivated areas of agricultural crops	99.8	98.1	99.3
4	Index of the dynamics of production of the main agricultural products	102.0	102.8	79.6
5	Index of the number of agricultural animals by region	94.4	97.0	100.6
Economic potential				
6	Index of agricultural products in farms of all categories	81.7	99.7	89.8
7	Index of agricultural products in enterprises by region	78.4	99.2	85.9
8	Index of agricultural products in households	92.4	101.0	101.2
9	Index of the number of agricultural enterprises	90.4	91.7	93.1

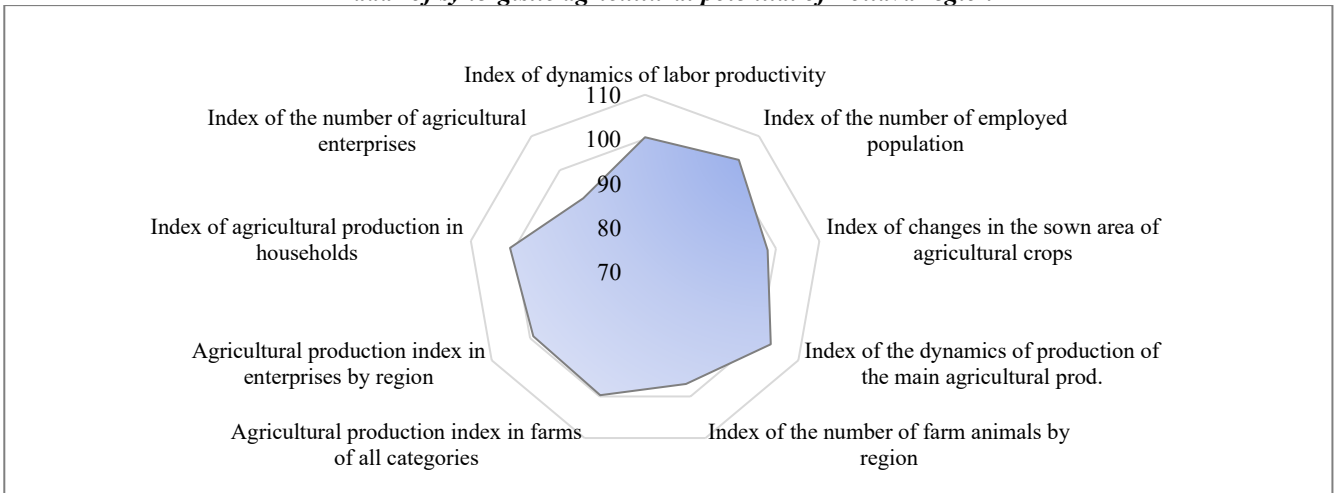
**Source: formed on the basis of Official website of the State Statistics Committee.*

A graphical method is used to calculate the synergistic potential index of an agricultural region, for which it is necessary to build potential radars for selected regions (Figure 3).

Radar of synergistic agricultural potential of Vinnytsia region



Radar of synergistic agricultural potential of Poltava region



Radar of synergistic agricultural potential of Khmelnytskyi region

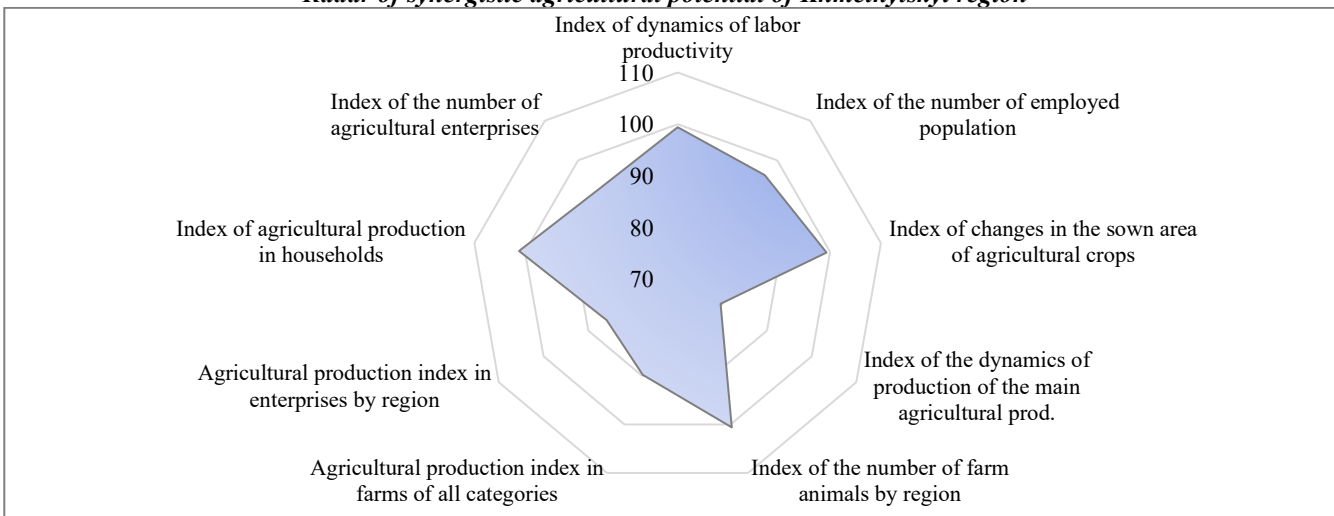


Figure 3. Radar of synergistic agricultural potential of regions

**Source: developed by the authors.*

The calculation of the synergistic potential of the agricultural region on the example of the Vinnytsia, Poltava and Khmelnytskyi regions is presented in Table 2.

Table 2. The results of the calculation of the integral index of synergistic agricultural potential

Region	Synergistic potential radar area	The area of the evaluation polygon	Integral index of synergistic potential
Vinnytsia	1.241	1.685	0.74
Poltava	1.450	1.685	0.86
Khmelnytskyi	1.064	1.685	0.63

*Source: calculated by the authors.

The results of the calculations make it possible to establish target parameters for each agricultural region, which in a strategic perspective make it possible to determine the directions of potential optimization as a basis for developing a regional branding strategy based on selected parameters. According to the results of the study, Poltava region has the highest level of synergistic potential, which means the process of forming the most favorable conditions for the formation and further promotion of the region's brand. The specified methodology makes it possible to develop appropriate measures of regional policy in the sphere of socio-economic development of the agricultural sphere.

Conclusions

The impact of crisis processes in the economy necessitates the transition to the use of innovative management tools, one of which is the development of branding of an agricultural region, and the development of a methodology for preliminary assessment of the

ability of an agricultural region to form and implement a regional brand. One of the important economic criteria that needs to be evaluated is the synergistic agricultural potential of the region, since it combines the complex influence of the main components of the potential. The proposed approach makes it possible to assess agricultural potential using an integral indicator of synergistic agricultural potential, which also reflects the level of competitiveness of the agricultural sector. The use of the above-discussed approach in forming the brand image of an agricultural region will ensure the process of implementing a branding strategy, which will further contribute to the achievement of regional development goals based on the management of relationships between various interested audiences based on the reflection of all elements of the uniqueness and competitiveness of the agricultural sector.

The prospect of further research is the development of strategic guidelines for regional management of the branding development of agricultural regions.

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