

Systematic and subsistential analysis of the conditions of stable development of local mono-product markets

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Abstract. The authors suggested in the article and implemented the methodology of the systematic and subsistential analysis of stable development of local mono-product markets, the scientific and methodological base of which is the comprehensive research of the three main system blocks of this market: resources; intensity of ties, and sales. Delimitation of the main blocks of the studied markets was made with account of the contemporary conceptual representations of the theory of markets and the theory of contracts. During the analysis of the block of intensity of economic ties, the volumes of sales of various crop products were used as the importance weight. Approbation of the methodology was carried out through the example of local crop products markets of the regions of the North Caucasian Federal District of the Russian Federation. This methodology reveals the capacity of further growth of the studied markets and allows evaluating the organizational element of intensity of local crop products markets.

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Introduction

In view of the necessity of enhanced elaboration of the large-scale and versatile scientific problem of development of local mono-product markets in the economic space of the regions of contemporary Russia [1, 2], the authors implemented the systematic and subsistential method of studying the stability of development of the latter as applied to the three possible levels of the studied market arrangement: the level of the Russian Federation, the level of a Federal District within the Russian Federation, and the level of a subject of the Federation.

Unlike the existing methodological approaches [3-6], the systematic and subsistential analysis includes obtaining generally recognized estimates of the basic indexes and associates these results with the main block-type subsystems at each stage of the analysis. The particularities manifest themselves in the purposeful practical interaction of the block-type subsystems with each other.

Methodology

In line with the systematic approach to the research of the stable development of local markets, the authors developed the methodology of the systematic and subsistential analysis of the conditions of the stable development of the mono-product markets, which analysis includes three main blocks (Figure 1): resources, intensity, and sales.

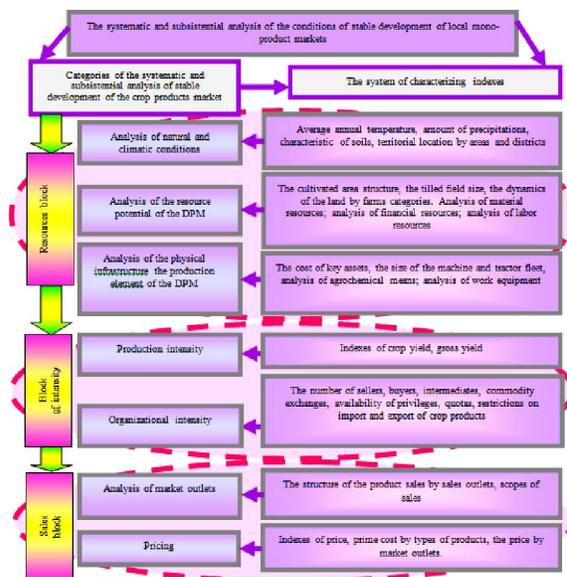


Figure 1. Methodology of the systematic and subsistential analysis of the conditions of stable development of a local mono-product market

Body of the work

The most important element of the resource block of the mono-product market is the availability of land resources. For the period between 2001 and 2012, the cultivated area in Russia reduced by 6.9%, which was mainly determined by the withdrawal of land from agriculture because it became not suitable for cultivation [7]. During the same period, the square of crop culturing in the NCFD increased by 9.1% –

step-by-step return of abandoned land into agriculture took place. In the Stavropol Region, the tendency of increasing the total square of cultivated area is observed, including the increase during the studied period by 7.4% [8].

In the structure of the physical infrastructure of crop farming during the studied period, the cost of fixed production assets in Russia increased 3.7 times, in the NCFD – 3.6 times, in the Stavropol Region – 3.2 times. In the financial and investment terms, agricultural structures of Russia provide for their development using their own resources, i.e. net profit, only for 15-18% [9]. During the studied period, the net profit of agriculture in Russia increased 4.1 times; however, this increase is mainly determined by inflationary processes. The real income of the agricultural sector during the studied period increased 1.9-2.1 times [10].

The intensity block, first of all, characterizes the gross yield and the crop yield of the studied cultures (the food aspect). During the studied period, the crop yield of grains decreased by 28.4% in Russia. This was caused by the development instability – the grains crop yield in 2012 was the lowest for the last 20 years [11]. Another negative trend was shown by the dynamics of the crop yield of grains in the NCFD regions during the studied period (-12.9%). On the contrary, in the Stavropol Region, the gain in crop yield of grains in 2012 (as compared to 2001) equaled to 22.7%, but again in this case, the considerable fluctuations of the crop yield caused the instability of the market development [12].

During the analyzed period, the crop yield of sunflower grew: in Russia – by 23%, in the NCFD – by 67%, in the Stavropol Region – by 46.3%. The crop yield of potatoes increased in Russia by 11.9% during the studied period, which made it possible to reduce the potatoes import from other countries.

Analyzing the organizational aspect of the block of intensity of the ties of the studied market, we need to notice that it is characterized by the number of sellers, buyers, intermediates, commodity exchanges, availability of privileges, quotas, and restrictions for import and export of crop products. The main organizational element of the market mechanism in the world includes the commodity exchanges [13]. The structure of the Russian exchange-traded contracts for supplies of crop products as of year-end 2012 is asymmetric: 84% - were grain crops, 8% - were sunflower seeds, 2% - was sugarbeet, and vegetables were less than 1%.

Sales block. During the studied period, the legal sales of crop products were accomplished through six outlets: organizations, which were engaged in purchases for state needs; cooperative business; processing, trading organizations; exchanges

and auctions; sales to the population (through the system of public catering and settlements in respect of labor compensation); barter agreements.

Evaluating the results of the analysis, we need to note that the legal sales of grain crops reduced by 42.6%. In the structure of sales, the reduction took place in the following outlets: governmental purchases (by 75.4%), sales to the population (by 74.3%), and barter agreements (by 93%). The increase of the grain crops sales in Russia took place in the following outlets: processing enterprises, exchanges and auctions [14, 15].

During the studied period, the price hike for grain crops in Russia equaled to 91.2%, in the NCFD and the Stavropol Region – 110.6%. The sunflower price increased 2.7 times in Russia, 3.1 times in the NCFD and the Stavropol Region. The maximum price hike affected vegetables: their price increased 7.5 times in Russia, and 8.8 times in the NCFD and the Stavropol Region. The price hike for sugarbeet in Russia equaled to 240%, in the NCFD and the Stavropol Region – 210 %. The prime cost of grain crops in Russia increased 3.2 times during the studied period, in the NCFD – 3.4 times, and in the Stavropol Region – 3.5 times. The sunflower prime cost in Russia increased by 160%, in the NCFD – by 190%, in the Stavropol Region – by 200%. The prime cost of potatoes production as well as sugarbeet production increased 1.6 times in all cases, the prime cost of vegetables increased 5.5 times in Russia and 6.5 times in the NCFD and the Stavropol Region.

The generalizing results of the systematic and subsistential analysis of the crop products market operation conditions are represented in Table 1.

Conclusion

Approbation of the methodology of the systematic and subsistential analysis of the conditions of development of local mono-product markets of crop products contributed to identifying the recession trend of the crop products markets in the Russian Federation and the North Caucasian Federal District during the period between 2008 and 2010, which was mainly determined by the influence of the global economic crisis. Analysis of the resource and sales blocks of the crop products market showed that the studied markets had all necessary resources for cultivation of the main farm crops; however, it is to be taken into account that the natural and climatic conditions make the Northern Caucasus a high risk zone for crop production. Another result of the analysis worth being noted is the ultimate importance of the prime cost of crop products in the NCFD regions, which can be explained by the differences in the inflow of investments in the development of the crop farming area.

Table 1. Results of the systematic and subsistential analysis of the conditions of stable development of the local mono-product market, 2012.

Blocks and elements of the analysis	Russia	NCFD	Stavropol Region
Resources block			
Natural and climatic conditions	Average temperature – minus 2; Average precipitation – 483 mm; Hydrothermal index – 0.7.	Average temperature – plus 17.6; Average precipitation – 556 mm; Hydrothermal index – 1.28.	Average temperature – plus 16.2; Average precipitation – 512 mm; Hydrothermal index – 1.25.
Square of the market's lands, in thousands of hectares	78,120	4,103	2,965
Intensity block			
Product intensity	Grain crop yield index, dt/ha – 13.9 Gross yield, in thousands of tons – 60,923	Grain crop yield index, dt/ha – 20.4 Gross yield, in thousands of tons – 8,429	Grain crop yield index, dt/ha – 32.9 Gross yield, in thousands of tons – 7,033
Sales block			
Pricing	Average price of grain producers, rub/ton – 4,564. Average price of sunflower producers, rub/ton – 10,605. Average price of vegetables producers, rub/ton – 17,517. Average price of sugarbeet producers, rub/ton – 1,165.	Average price of grain producers, rub/ton – 4,097. Average price of sunflower producers, rub/ton – 12,908. Average price of vegetables producers, rub/ton – 26,697. Average price of sugarbeet producers, rub/ton – 1,737.	Average price of grain producers, rub/ton – 3,691. Average price of sunflower producers, rub/ton – 11,629. Average price of vegetables producers, rub/ton – 24,052. Average price of sugarbeet producers, rub/ton – 1,566.

Summary

Expanding the opportunities for growth of local mono-product markets based on the systematic and subsistential analysis, it is to be noted that indigested implementation of the prioritized national project "Development of Agribusiness" has resulted in the fact that some NCFD regions (which do not have a strong potential for crop production) received the most modern physical infrastructure, which is unlikely to change the situation in the medium term, while the flagship regions were one of the first places by the degree of fixed assets depreciation in agriculture.

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