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EXPEDIENCY OF CLUSTER FORMS OF PHARMACEUTICAL BUSINESS ORGANIZATION AT THE REGIONAL LEVEL

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Abstract:

The article is devoted to the creation of innovative industry clusters in the region. The results of a comparative analysis of the quantitative characteristics of pharmacy chains in the Russian and local pharmaceutical markets of the Voronezh region are presented. The uneven development of the infrastructure of the pharmaceutical network is established and its dependence on the level of economic development of the region is shown. A significant predominance of network pharmacy organizations in the structure of subjects of the retail pharmaceutical market of the Russian Federation was revealed. The regional features of the Voronezh region in terms of the "share of network pharmacies" (according to this indicator the region is in second place in the Russian Federation) in the overall market structure are established. Particular attention is paid to the feasibility of creating territorial preventive clusters that combine structures of different forms of ownership and activities in the interests of the health of the living population, taking into account the specifics and capabilities of the regions. Due to such integration and the corporation, it is supposed to provide an economic result through the sale and consumption of new high-tech products in order to develop the regional economy and its competitiveness.

Keywords: *cluster policy, pharmacy organizations, integration interaction, innovation, consolidation, regional development, development management.*

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INTRODUCTION:

Currently, the leading trend in modern innovative economic policy in most countries of the world is the creation of effective forms of research and production cooperation and the increase on this basis of the share of high-tech competitive products in the total volume of its production at the regional level and the country as a whole [1, 2, 6].

The pharmaceutical industry is one of the most high-tech and knowledge-intensive industries in any country. The global prospects for its development are determined by the latest achievements of chemistry, biology and medicine, high-tech bio- and nanotechnologies, as well as the development of an innovative system that includes large pharmaceutical companies and their environment. Therefore, the most important component of innovative economic policy in the field of the pharmaceutical industry should be the stimulation of the creation of effective forms of innovative production cooperation, which can become one of the locomotives of innovative development not only of the industry, but of the region as a whole [3,5].

One of such forms of interaction can be innovation-production clusters. The cluster approach is a kind of methodological basis for innovation policy, combining industrial, scientific and technical policies, support policies for small and medium enterprises, as well as regional policies. The specifics of using the cluster method is that this method connects participants in intersectoral innovation and production cooperation with a single technological process and, accordingly, a single end result for all participants: from scientific and innovative activities to the creation and marketing of high-tech products [4,7,8].

At the same time, despite numerous studies by domestic and foreign authors on improving the organization of the pharmaceutical industry, the cluster approach to managing the strategic development of the pharmaceutical industry has not been sufficiently addressed. There is a shortage of scientific developments aimed at innovative modernization of the pharmaceutical industry; mechanisms for resource support for the implementation of cluster policy have not been identified. In addition, in connection with the vast territory of the Russian Federation, significant regional features of the pharmaceutical market arise, which also affect the formation of pharmaceutical clusters. In this regard, the purpose of this study is a comparative analysis of the quantitative characteristics of pharmacy chains in the Russian and local pharmaceutical markets of Voronezh and the significance of their regional identification based on the cluster mechanism for the modernization of the pharmaceutical industry.

MATERIALS AND METHODS:

A comprehensive analysis of various organizational, economic and other resources of the pharmaceutical industry of the Voronezh region. Regulatory documents, reporting data of DSM Group, RNC Pharma, information sources of Internet resources were used as sources of information: http://2gis.ru/; http://www.google.com/maps;
http://ru.wikipedia.org/, as well as official website data for pharmacy chains.

When assessing the efficiency of resource use, we identified 3 approaches:

1. Quantitative assessment of the industry: the number of organizations, the volume of services, etc.
2. Expert assessment of cooperation between participants: the number of participants between whom there is established interaction, the nature of business ties, assessment of the degree of contribution of business ties to the final result of the cluster.
3. Assessment of the dynamics of cluster development: calculation of dynamic development indices before and after combining into a cluster.

To solve specific problems, we used methods of comparative analysis, grouping, and a systematic approach based on comparing and comparing theoretical and practical material.

RESULTS AND ITS DISCUSSION:

Analysis of the total number of pharmacy organizations (AO) in the Russian Federation as of the end of 2018 revealed that the total number of AOs was about 58 thousand, the leading districts in the number of AOs are Central, Volga and Siberian, whose shares are 29%, 24%, 16%, respectively. Such a distribution may be due to the fact that in the territories of these districts there are the most economically developed regions with a higher population density. The smallest percentage of the number of JSCs was found in the Far Eastern Federal District (4.6%). Among the cities of Russia in the number of JSC Voronezh is in 8th place, where 10 thousand people. accounted for 4.9 AO. The leading positions are occupied by Perm (6.2), Ufa (5.8) and Novosibirsk (5.6). It is worth noting that in Perm today there is the only cluster from the pharmaceutical industry that is included in the register of the Ministry of Industry and Trade of Russia. In total, the cluster included 18 participating organizations, 10 of which are business entities engaged in industrial production. In addition, the cluster includes 4 higher educational institutions of the Perm Territory, including classical and polytechnic universities, a medical university and a pharmaceutical academy. Its anchor enterprises were CJSC «Medisorb» and LLC Perm Chemical Company. As a result of the cooperation of cluster members in the Perm Territory, the production of more than 15 types of medicines and pharmaceutical substances is created, which are among the most important and vital and currently mainly imported from abroad. The total amount of investment in projects is about 100 million rubles. In addition, the implementation of joint projects involves the creation of 40 high-performance jobs at the initiator of joint projects - CJSC «Medisorb».

In general, in Russia, in terms of the scale of the pharmaceutical industry, three groups of organizations have been distinguished: single, network regional AOs, network federal pharmacy organizations. Currently, the share of network pharmacies in the structure of the Russian pharmaceutical market is on average about 81%. This indicator varies by region, from 27% in the Republic of Tuva, to 97% in Sevastopol. The average share of state pharmacy chains in Russia is 9.8%, which is about 5.5 thousand retail outlets. In the Voronezh region, networked regional pharmacy organizations dominate, which reflects the structural distribution of the retail sector of the pharmaceutical market - fig. 1.

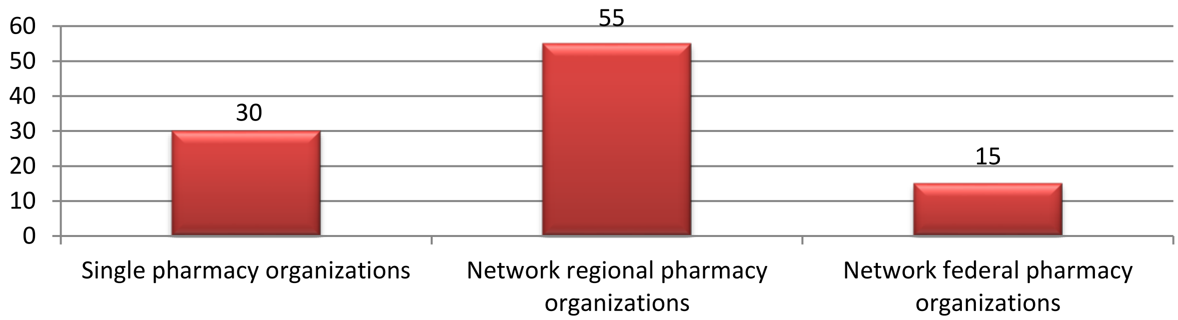

Fig. 1. Distribution of pharmacy organizations of the Voronezh region by scale of activity

By types of entrepreneurial activity, the studied set of pharmacy organizations is represented by 94% of legal entities and 6% of individual entrepreneurs. 84% of the studied population have a private form of ownership, the remaining 16% - state.

According to the number of employees of the Voronezh Oblast AO, 4 groups can be distinguished: micro-enterprises (with the number of employees up to 15 people), small (employees up to 100 people), medium-sized (100-250 people) and large enterprises (over 250 people). Most pharmacy organizations are micro and small enterprises, while the share of micro enterprises is 64%, and small enterprises account for about 19%. Medium and large enterprises totaled 11% - 6% and 5%, respectively.

The leading position among pharmacy chains in the Russian pharmaceutical market is occupied by ASNA - an association of independent pharmacies that brings together more than 4,000 points in more than 60 regions of the federation. The top three also includes Pharmacy Chain 36.6 and Rigla, but the number of their retail outlets is more than 2 times less than that of the leader. The market share controlled by the leaders of pharmacy chains in the Russian market is 31.1%.

A feature of the retail market of the Voronezh region is parity in the number of retail facilities between regional and federal chains. The leader among the regional networks of the region is the Healthy City network (LLC «AMP»), which in terms of the number of retail outlets significantly exceeds its closest competitor. As of April 1, 2017 LLC «AMP» has 68 joint-stock companies, the regional network «Farmia» has 26 outlets and only the third place is occupied by the federal network «Rigla» with 24 pharmacy organizations.

An analysis of the quantitative characteristics of the retail pharmaceutical market of the Voronezh region showed that the region ranks second among all regions of Russia in the share of network pharmacies (89%). A characteristic feature of the region’s market is the significantly lower presence of state-owned networks in comparison with the all-Russian indicator (3% in the region and 9.8% in Russia, respectively). The territorial distribution of federal pharmacy chains to the market of the Voronezh region resulted in a rapid reduction in the number of individual entrepreneurs engaged in pharmaceutical activities. Over the past fifteen years, their share has decreased from 25% to 5%.

The sales chain among Voronezh chains is also led by the Healthy City pharmacy chain, which ranks 75th in the ranking of the largest pharmacy chains in Russia – table. 1.

Table 1: Voronezh chains in the ranking of the largest pharmacy chains in Russia

Rating (network position)	Pharmacy network	Company revenue for 2018	Annual growth (relative to 2017)
75	City Healthy	1,5 billion rubles	+ 12 %
120	Farmia	921 million rubles	+ 62 %
121	Voronezhpharmacy	920 million rubles	- 7 %
148	"Pictures"	589 million rubles	+ 15,7 %

A comparative analysis of sales volumes by the leading pharmacy chains of the region showed a drop in the indicator only at KP «Voronezhpharmacia№. The decrease in sales of the state network (-7%) can be associated both with increased competition in the local market, and with an underdeveloped marketing strategy for promoting the company due to its focus on the implementation of social functions for the population (free and preferential leave of drugs, sale of drugs and psychotropic substances, etc.). The leader in terms of growth in sales in the regional market over the past two years is the pharmacy chain «Pharmia» (+ 62%). The increase in turnover was provided by a significant increase in the number of retail outlets in the network. Over the past year, their number has doubled.

Thus, the study showed that the Voronezh pharmaceutical market has distinctive features from similar markets in the Central Federal District in terms of the dominance of regional pharmacy chains in the overall market structure. The development of federal pharmacy chains in the regional market is possible only through mergers and acquisitions of smaller regional and federal pharmacy chains, as well as the remaining small number of individual entrepreneurs.

It is important to note that for the formation of a cluster, the availability of opportunities for ensuring the structural interaction of science, education, production and the financial sphere for the development of innovative activity is significant. At present, the pharmaceutical education system in Russia, as in the Soviet period, includes the training of specialists with higher and secondary pharmaceutical education (the qualifications assigned are, respectively, «pharmacist» and «pharmacist»). At present, 55 higher education institutions of the country offer higher pharmaceutical education programs, 35 of which are subordinate to the Russian Ministry of Health, and 18 to the Russian Ministry of Education and Science. At the same time, in the Voronezh region two educational organizations at once: the Voronezh State Medical University and the Voronezh State Classical University provide training for qualified specialists with higher education and three basic colleges (Voronezh, Borisoglebsky, Ostrogozhsky) train middle-level personnel.

An analysis of the employment market of the pharmaceutical industry showed that the total number of specialists with pharmaceutical education employed in the pharmaceutical sector of the Voronezh economy is about 9 thousand people, while the share of specialists with higher education corresponds to 47.5 and 52.5%. Women make up 93% of all pharmaceutical personnel, which corresponds to a very high level of this indicator (for example, in European countries, where the number of women in the profession is relatively large, it is 70%). The bulk of specialists with pharmaceutical education work in retail pharmacy organizations. The share of such specialists in the overall pharmaceutical staff of the city is 69.2%. A relatively large number of specialists work in manufacturing companies (20.4%), since the city has a chemical-pharmaceutical plant, which occupies one of the leading places in the pharmaceutical industry in Russia. A significant part of specialists is also involved in the distribution sector (10.4%), which is due to the specifics of the Russian pharmaceutical market, where, due to the territorial scale and underdeveloped market, a large number of wholesale companies operate.

CONCLUSIONS:

Based on their research results, we consider it expedient to implement the priority area for implementing cluster policy on the territory of the Voronezh region, since there are all necessary conditions for building a competitive structure with isolating weak, bottlenecks from the functioning process:

- The presence of a basic (anchor) stakeholder, which can be the leading industry enterprise Veropharm plant, KP Voronezhpharmacia;

- The presence of a network of stakeholders - leaders of the specialized professional community (the pharmacy chain Healthy City, 36.6, Rigla, Pictures, etc.) that organize the process of “clustering” with respect to the anchor enterprise, in a certain hierarchical order;
- The existence of cluster development centers: in Voronezh, two educational organizations train qualified specialists with higher education: Voronezh State Medical University, Voronezh State Classical University and three basic colleges (Voronezh, Borisoglebsky, Ostrogozhsky) engaged in the training of middle managers;
- The presence of a coherent cluster policy at various levels of government – the Voronezh region has experience in organizing innovative industrial clusters in other sectors of the economy;
- Availability of sufficient funding: infrastructure flow of financing; investments; stock money, etc.;
- The presence of a cluster development program (program-targeted approach as part of a long-term regional development strategy);
- The presence of the right motivation for the cluster members to achieve the desired result.

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