



Original Article

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## *Analysis of the Russian Market of Biologically Active Supplements*

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### ABSTRACT

Due to the difficult geopolitical situation, 2022 has become a turning point in many areas of trade for Russia. Many foreign manufacturers are leaving the market, giving way to domestic ones. This is especially true for the Russian pharmaceutical market, including the market for biological active supplements. In 2022, Herbalife Nutrition (USA), BAYER (Germany), ELI LILLY (USA), NOVARTIS (USA, Switzerland), GlaxoSmithKline (Great Britain), PFIZER (USA), SANOFI (France) left the Russian biological active supplement market. At the same time, the demand for biological active supplements in the country shows an extremely positive trend. In 2022, compared to the previous year, the volume of purchases of biologically active supplements increased by 19% in rubles and by 1% in packages. This article will continue detailed marketing research of the biologically active supplement market, indicate the most popular manufacturers (Evalar, Solgar, PharmaMed), give the most popular product groups (biological active supplements that affect the body as a whole, the digestive system, the nervous system), examine the dynamics of the main indicators for compared to previous years.

**Key words:** Russian pharmaceutical market, Biologically active supplements, Nutraceuticals, Parapharmaceuticals, Eubiotics

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### INTRODUCTION

Biologically active additives are substances of natural origin, which are designed to increase the protective capabilities of the body [1]. They are natural or identical to them. Also included in this category are probiotic microorganisms [2]. Biologically active supplements are not medicines, but food products that enrich the human diet [3].

In this regard, they:

- do not require preclinical and clinical trials;
- pass only hygienic examination;
- may be sold without a license.

Simply put, they can be bought at the store as a regular seasoning. The state only ensures that they meet sanitary standards.

Biological active supplements affect the human body in different ways. So, allocate:

- Nutraceuticals - additional sources of fats, proteins, and carbohydrates [4].
- Parapharmaceuticals - support the functioning of organs, provide disease prevention and enhance the effect of drug therapy [5].
- Eubiotics - improve the intestinal microflora. There are probiotics (which bring additional microorganisms) and prebiotics (which stimulate the development of existing ones) [6].

Additives can also be classified according to their origin. They are mainly made from plant and animal raw materials, minerals, and waste products of bees and algae [7].

According to the principle of action, any biologically active supplement can resemble a vitamin complex. However, there is a big difference between them. The biologically active supplement is a food product, and vitamin complexes are a medicine. Accordingly, the necessary tests and pharmaceutical certification are carried out for vitamins [8].

In addition, as part of vitamins, the active substance is present in a strictly defined therapeutic dose. In biological active supplements, the dose is subtherapeutic, that is, it does not give a therapeutic effect.

Biologically active additives do not replace drugs but complement the overall therapeutic complex [9].

They solve a wide range of tasks [10]:

- increase in efficiency;
- strengthening of immunity;
- increased nutrition with micro- and macronutrients;
- activation of digestive processes;
- normalization of the functions of endocrine glands;
- improvement of metabolism;
- excretion of harmful substances from the body.

Over the past 100 years, global changes have occurred in the environment, which ultimately led to a decrease in life expectancy and an increase in overall morbidity [11].

According to valeology (the science of preserving and maintaining health), a person's physical health depends on the following factors:

- 50% of the lifestyle (nature of nutrition, the presence of bad habits, neuropsychic stress, conditions of professional activity, etc.);
- 20% of hereditary factors;
- 20% of the ecological state of the environment;
- by 8-10% of the level of development of the healthcare system.

Thus, the nature of our diet is an essential factor in a healthy lifestyle. From a scientific point of view, proper nutrition should be balanced, food should be environmentally friendly, natural, and adjusted with mineral and vitamin supplements [12, 13].

The emergence of biologically active additives was facilitated by unique modern technologies that allow satisfying the human need for essential substances (vitamins, minerals, biologically active fiber, amino acids, polyunsaturated fatty acids, and so on) [14,15].

Currently, the requirements for biological active supplements are becoming more stringent. This is because the scope of biologically active additives is expanding, and they are becoming more and more popular among the population and practitioners. Today, all three classes of biologically active supplements are in demand. And if nutraceuticals are used by doctors as additional sources of minerals, trace elements, vitamins, and other micronutrients we need, then parapharmaceuticals and probiotics are used in the complex therapy of a wide range of diseases [16, 17]. The latter circumstance makes it necessary to impose more serious requirements both on the composition and safety and on the effectiveness of biologically active food supplements [3, 18].

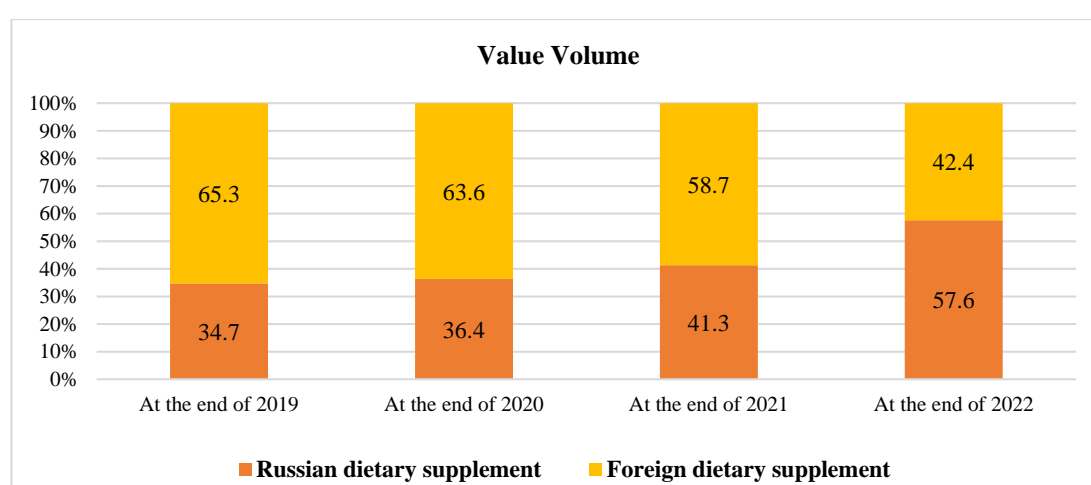
## **MATERIALS AND METHODS**

This scientific study is aimed at studying the main economic indicators of the Russian biological active supplements market until the end of 2022. For market research, open information sources are used. All information is analyzed using Statistica software from StatSoft and Microsoft Excel.

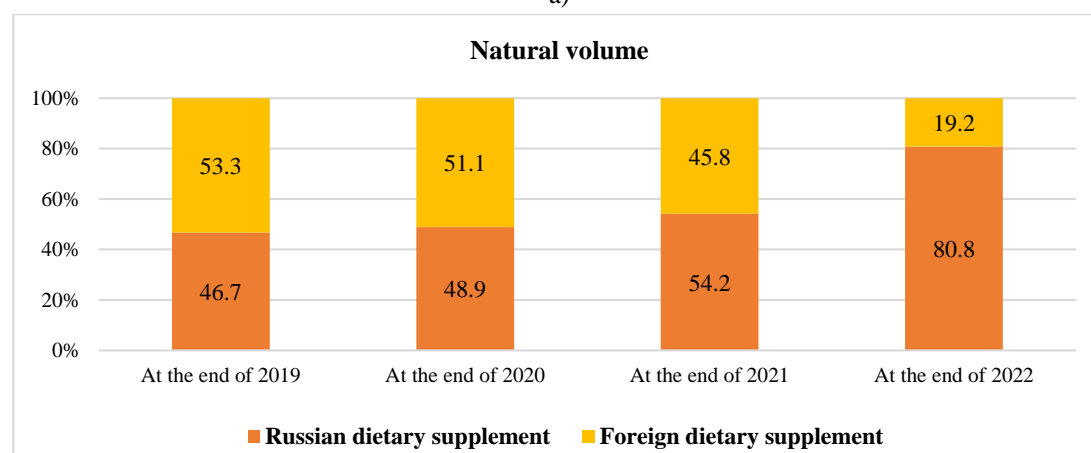
## RESULTS AND DISCUSSION

In 2022, many foreign manufacturers of biologically active supplements decided to leave the Russian market. Their numbers include:

- Herbalife Nutrition (USA);
- BAYER (Germany);
- ELI LILLY (USA);
- NOVARTIS (USA, Switzerland);
- GlaxoSmithKline (Great Britain);
- PFIZER (USA);
- SANOFI (France).



a)



b)

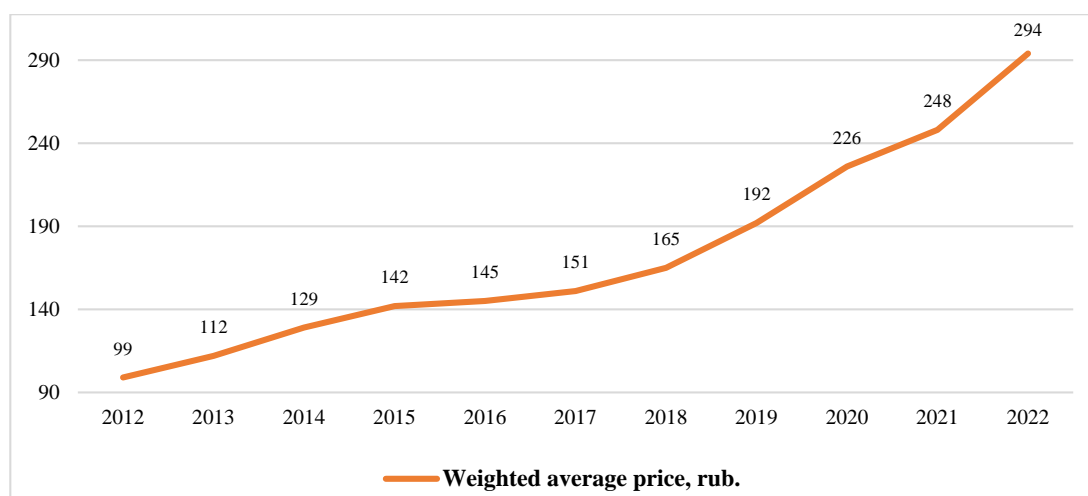
**Figure 1.** Dynamics of the ratio of pharmacy sales of Russian and imported biological active supplements.

Nevertheless, according to experts, stable positions in the market are still occupied by foreign brands that sell biological active supplements mainly through pharmacy chains - Solgar, Queisser Pharma, and others. These companies do not plan to leave Russia; on the contrary, they announce the continuation and expansion of their activities [19-23].

It should be noted that over the past 3 years, the domestic market of biologically active supplements has shown a constantly growing demand.

Most industry representatives agree that in the medium term, an increase in the share of domestic manufacturers in the total consumption of biologically active supplements in Russia is inevitable (**Figure 1**).

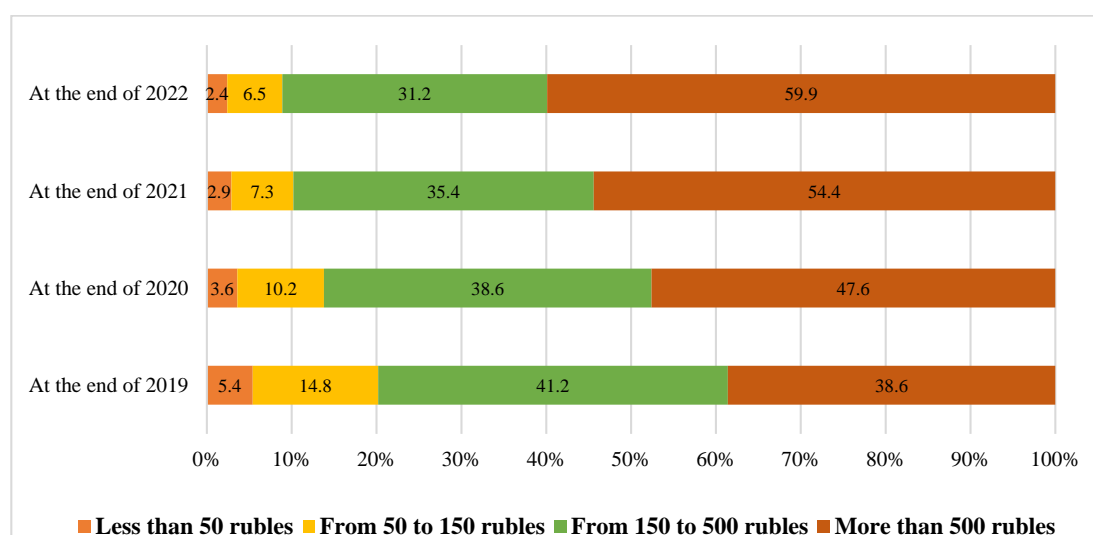
Domestic biological additives maintain market dominance with a share of 80.8% in packages and 57.6% in rubles in December 2022. Moreover, if on average one package of a Russian biological active supplement was sold in pharmacies for 214 rubles (+25.9% compared to December 2021), then a package of an imported additive cost 662.7 rubles (+13.8%) [17]. **Figure 2** shows the dynamics of growth in the price of biologically active supplements.



**Figure 2.** Dynamics of the weighted average cost of biologically active supplements in Russia

The structure of sales by price segments of biologically active supplements has changed in favor of biologically active supplements from the price category “over 500 rubles”. The weighted average price of a biologically active supplement from the high-price segment was 927.3 rubles/pack. (+7.4% compared to December 2021). The share of biologically active supplements from the price range from 150 to 500 rubles in December 2022 decreased to the level of 31.2% (4.3% less than the share of the group in December 2021). The average price in the category decreased by 1.9% and amounted to 287.3 rubles/pack. The share of the biologically active supplement segment with an average cost of a package of 50-150 rubles (6.5%) also decreased compared to December 2021. At the same time, the average cost of a pack increased by 9.9% (95.4 rubles) [17].

The share of biologically active supplements in the lower-price segment decreased by 0.5%. The average cost of a pack increased by 24% compared to December last year to 25.8 rubles per pack (**Figure 3**).



**Figure 3.** Dynamics of the structure of different price categories in the commercial pharmacy market of biologically active supplements in Russia (in value terms)

At the end of 2022, sales of biologically active supplements in pharmacies increased by 19% in rubles and by 1% in units compared to 2021 (**Figure 4**). In 2022, pharmacies sold 350.7 million packs worth 102,630 million rubles. Thus, the weighted average cost of one package amounted to 292.65 rubles. In 2021, pharmacies sold 347.6

million packages of biologically active supplements for 86244 million rubles. The weighted average cost of one package was 248.11 rubles. In 2022, the increase in the cost of a weighted average package was 18%.

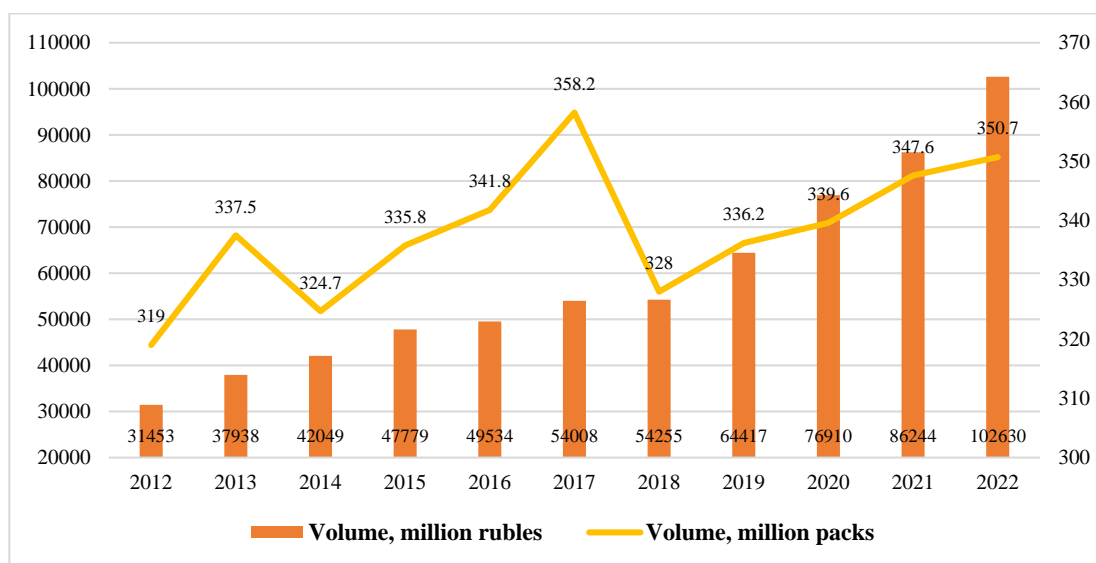


Figure 4. Dynamics of the sale of biologically active supplements in pharmacies

The most popular in 2022 were three biological active supplement groups. Biological active supplements acting on the body as a whole amounted to 37%; Biological active supplements acting on the digestive system accounted for 13.8%; Biological active supplements acting on the nervous system accounted for 13.5% (Figure 5) [17]. In general, these three groups of biologically active supplements brought almost 66 billion rubles.

In the group of monovitamins, biologically active supplements with vitamins C, D, and E are more common. Groups of other minerals show high dynamics, these include mono- and combined preparations with magnesium, zinc, selenium, and so on. Also, sales of biologically active supplements to improve the condition of the skin, hair, and nails have grown significantly, mainly a combination of hyaluronic acid with ascorbic acid, collagen, etc.

The situation with sales of biologically active supplements acting on the senses is of interest. The share of their sales amounted to 11.8% in rubles, with only 2.5% in packages. Thus, the weighted average cost of a package of this group of biologically active supplements, according to the data for 2022, amounted to more than 1382 rubles, which made it the most expensive product.

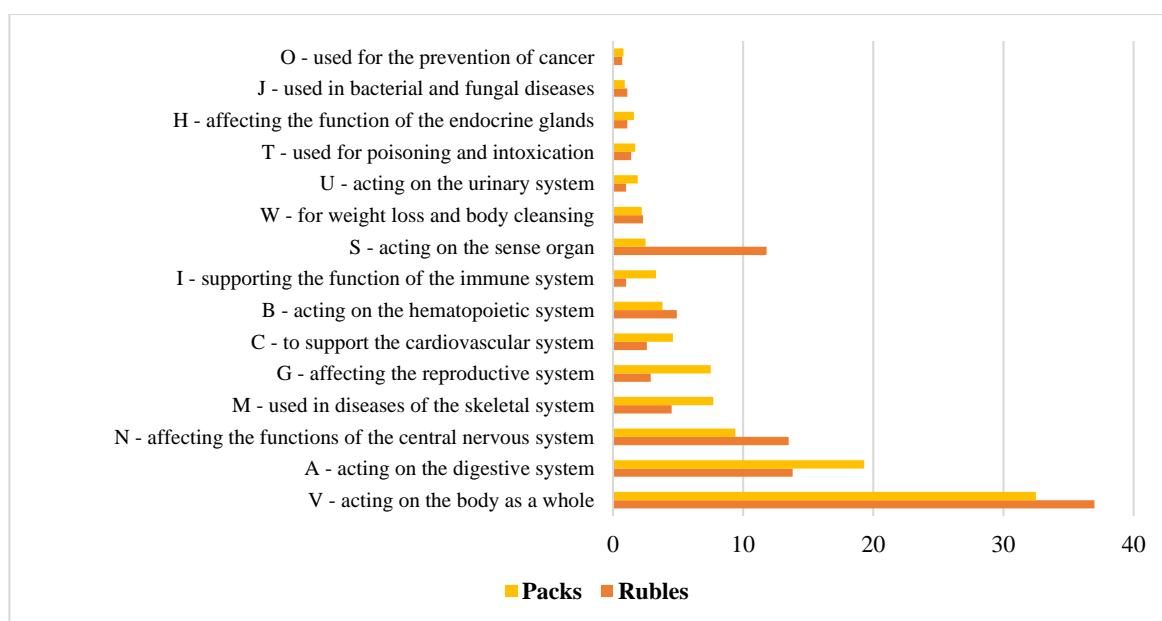
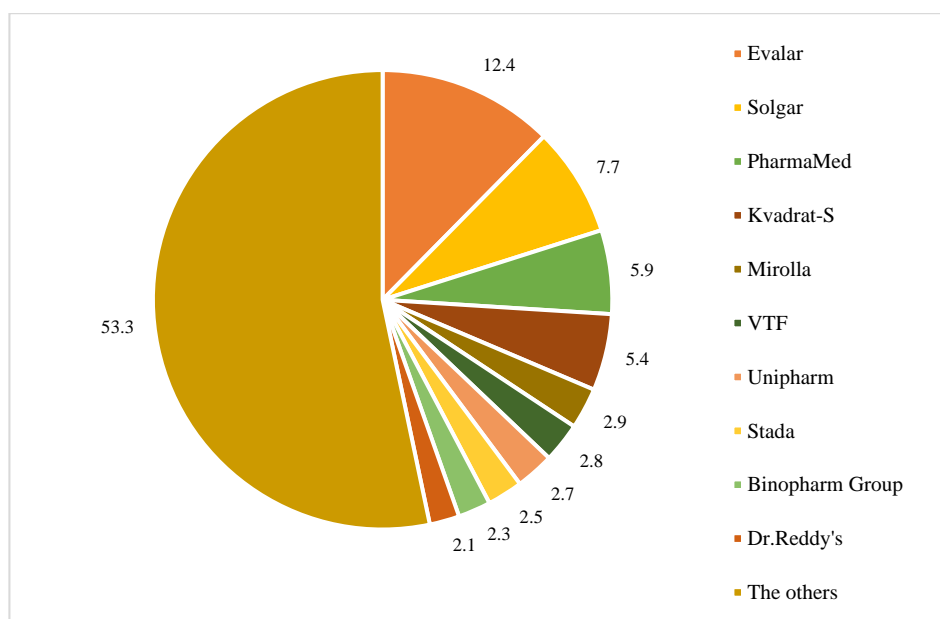


Figure 5. The structure of consumption of biologically active supplements by purpose

In Russia, from year to year, the leading manufacturer of biologically active supplements is the company "Evalar" with a share of 12.4% in rubles – the manufacturer's sales decreased by 0.5% compared to 2021 (**Figure 6**). The second place belongs to the American manufacturer Solgar (a market share of 7.7% in rubles, the company's sales volume increased by 47% compared to 2021). The company has only one brand - Solgar, which has a whole series of biologically active supplements with a wide spectrum of action: from biologically active supplements that act on the body as a whole, to supplements that support the functioning of individual organ systems. The third position is occupied by the Canadian manufacturer PharmaMed (a share of 5.9% in rubles, the company's sales volume increased by 41.2% compared to 2021).

In December, sales fell most noticeably at Unipharm (-5.6%). The highest growth compared to December last year was shown by the domestic company Mirrolla (+146.9%) [17].

The manufacturer "Kvadrat-S" showed an increase in sales by 48.2%. The company has a fairly wide portfolio - including 74 brands. The manufacturer VTF also increased its sales by 45.7%.



**Figure 6.** The main manufacturers of biologically active supplements by the value of sales in Russia in 2022

As of the end of 2022, Russian pharmacy organizations sold about 2,800 brands of biologically active supplements from 945 manufacturers. At the end of 2022, the commercial biological active supplement market grew in rubles by 19.8% compared to 2021 and amounted to 105 billion rubles. In packs over the same period, the market capacity increased by 0.5% to 364 million packs.

## CONCLUSION

In the period 2019-2021, the average annual growth rate was about 10.62% in value terms. As of the end of 2022, the size of the biologically active supplement market in Russia amounted to 102,630 billion rubles, which is 19% higher than last year.

Due to the geopolitical situation in the medium term, an increase in the share of domestic manufacturers in the total consumption of biologically active supplements is inevitable, including due to the emergence of new manufacturers.

As for demand from consumers, in March 2022, the Russian market saw a rather sharp increase in sales: + 75% compared to March 2021 and + 42.3% compared to February of this year. This growth is explained by the desire of Russian citizens to stock up on biological active supplements due to fear of price increases and the departure of foreign brands.

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