

Current Issues in Pharmacy and Medical Sciences

Formerly ANNALES UNIVERSITATIS MARIAE CURIE-SKLODOWSKA, SECTIO DDD, PHARMACIA

journal homepage: <https://czasopisma.umlub.pl/curipms>



Current trends and prospects for the development of sports nutrition worldwide and in Ukraine

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ARTICLE INFO

Received 10 November 2022
Accepted 22 December 2025

Keywords:

sports nutrition (SN),
market analysis,
global trends,
healthy lifestyle,
franchise.

ABSTRACT

Sports nutrition (SN) represents a dynamically developing segment of the global food and dietary supplement market, driven by increasing interest in physical activity and healthy lifestyles.

The study aimed to analyze current trends in the development of the sports nutrition market worldwide and in Ukraine, using the *AthleteMarket* retail network as a case study. The research was based on a review of specialized scientific literature, market reports, and an analysis of the product assortment offered by the *AthleteMarket* online store in 2021. Systemic, comparative, statistical, and graphical methods were applied.

The global sports nutrition market demonstrates steady growth, with an average annual growth rate estimated at 8.1-11.0% and a projected value of up to USD 90 billion. The Ukrainian sports nutrition market is characterized by a high level of import dependence, with foreign manufacturers accounting for approximately 90.0% of available products. Analysis of the *AthleteMarket* assortment revealed the predominance of protein-based products and fat burners, with solid dosage forms (powders, capsules, tablets) representing 96.0% of the total range. Flavor variety remains an important factor for consumers, with vanilla, chocolate, and strawberry being the most common options. The *AthleteMarket* franchise model presents opportunities for business expansion within Ukraine.

The sports nutrition market continues to expand globally and nationally, creating favorable conditions for further development. In Ukraine, market growth offers potential opportunities for domestic manufacturers and franchise-based retail expansion; however, further research and regulatory support are required to promote the rational use of sports nutrition products.

INTRODUCTION

Sports nutrition (SN) comprises a group of specialized foods designed not only for athletes but also for individuals who do not practice sports, lead an active lifestyle, and seek to increase the body's energy potential. The global SN market is actively developing and is valued at approximately USD 10 billion, while the Ukrainian market is estimated at USD 90 million.

A review of the current state of SN development in Ukraine was conducted using the example of the sports nutrition retail chain *AthleteMarket* (established in 2010 in Kyiv). The company operates five formats of brick-and-mortar

stores in different parts of the city. Individual stores located in large shopping centers have a retail area of approximately 40 m². Small retail outlets located in shopping malls (sales area 5-9 m²) and stores situated in high-traffic areas (sales area 10-25 m²) account for an equal share.

The *AthleteMarket* online platform offers 24 groups of SN products, with proteins predominating (42.9%), followed by fat burners (19.8%). Foreign SN manufacturers, predominantly American, account for 90.0% (18 companies, including Weider and Kevin Levrone), whereas Ukrainian manufacturers represent only 10.0% (Levobol, Fitness Factor). Solid dosage forms are mainly powders (65.0%), followed by capsules (21.0%), tablets (6.0%), and confectionery sticks (4.0%). A total of 54 flavor variants are available. Leading positions are occupied by vanilla (17.1%), while chocolate

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and strawberry account for an equal proportion (12.0%). The franchise offered by *AthleteMarket* was considered as a potential option for initiating a joint business in sports nutrition retail.

MATERIALS AND METHODS

Object of research

The sports nutrition market worldwide and in Ukraine.

Subject of research

The assortment of sports nutrition products offered by the *AtletMarket* online store of the *AtletMarket* company (Kyiv) in 2021, as well as data from specialized literature sources and websites.

The following methods were used in the study: systems analysis, comparative analysis, statistical analysis, and graphical methods.

RESULTS

Sports nutrition (SN) includes food supplements and dietary supplements consisting of complexes of carbohydrates and proteins, vitamins, minerals, micro- and macronutrients, as well as plant extracts. Their composition is carefully balanced, which has a beneficial effect on the human body [1]. Sports nutrition products are developed and manufactured on the basis of scientific research in fields such as nutrition and physiology. They are usually concentrated mixtures of basic nutrients, specially processed to ensure rapid and efficient absorption by the human body [2,3]. In contrast to regular food, which may take several hours to digest, sports supplements require minimal time and effort for digestion and absorption. In addition, many types of sports nutrition products have a high energy value [4]. Sports nutrition products belong to the category of dietary supplements, as their proper use is intended to supplement the basic diet consisting of conventional foods rather than to replace them entirely [5].

Sports nutrition represents a special group of foods produced mainly for individuals who lead an active lifestyle and participate in sports. Consumers of sports nutrition can be divided into two categories: athletes who use sports supplements to achieve performance goals more rapidly, and individuals who lead an active lifestyle and seek to improve their health and body composition [6].

There is a common perception that sports nutrition is used primarily in strength sports, such as weightlifting or bodybuilding. However, many sports nutrition products are also used for disease prevention, including supplements intended to support joints and ligaments [7]. Sports nutrition can additionally serve as a dietary supplement for individuals who are not engaged in sports. The actual spectrum of sports nutrition use is considerably broader and includes endurance-based sports, both traditional (cycling, running, swimming, rowing, and football) and those that are actively developing and gaining popularity, such as Total Body Resistance, CrossFit, and workout training.

Data from the *European Commission Directorate-General for Health and Food Safety* study on food intended for

sportspeople were analyzed to assess the use of sports nutrition among the general population and professional athletes (Fig. 1) [8]. The main reasons for sports nutrition use among professional athletes were increased energy (25.0%), restoration of the body's energy (22.5%), and improved endurance (16.3%). Among non-athletes, sports nutrition was primarily used for restoration of the body's energy (18.2%), increased energy (17.9%), and taste preferences (16.0%).

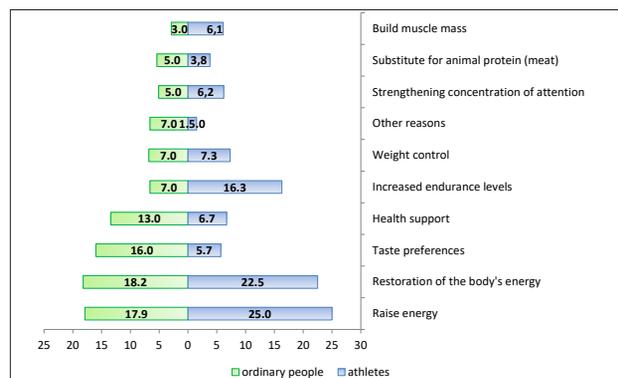


Figure 1. Reasons for the use of sports nutrition among non-athletes and professional athletes (%)

Market research companies analyzing the development of fitness services indicate that the average annual growth of the global sports nutrition market by 2024 is expected to range from 8.1% to 11.0%. In absolute terms, the total global market volume may reach USD 90 billion [8-12].

Table 1. Forecasts of research groups on the growth of the global sports nutrition market

Name of research group	Consumption in previous years	Consumption forecast	Average annual growth rate (%)
Zion Market Research	USD 28.37 billion (2016)	USD 45.27 billion (2022)	8.1
Transparency Market Research	USD 63.70 billion (2017)	USD 88.76 billion (2022)	6.9
Technavio	-	USD 91.07 billion (2021)	11.0
Euromonitor International	up to EUR 3.2 billion (2019)	-	SN consumption will increase by 6.2%, and energy products by 4.7%

Transparency Market Research predicts that the current market leader, North America, will maintain its dominance over the next five years. Sports nutrition sales in the North American market amounted to USD 25.35 billion in 2017 and are projected to increase by USD 11.38 billion to reach USD 36.73 billion by 2022 [10].

According to studies conducted by American experts, the top 10 sports nutrition manufacturers in North America are Maximum Human Performance (MHP), Universal Nutrition, CytoSport, Gaspari Nutrition, Nutrex Research, ProSource Performance Products, MuscleTech, Optimum Nutrition, Bio-Engineered Supplements & Nutrition (BSN), and Labrada [13]. Optimum Nutrition is the market leader, producing products for both beginners and professional athletes. The company's products are certified according to Good Manufacturing Practice (GMP) standards. Weider is a company with over 40 years of experience and was among the first to introduce a flagship product in the gainer category.

The global sports nutrition market is actively developing and is estimated at more than USD 10 billion, while

the Ukrainian market is valued at approximately USD 90 million. The United States hosts a significant number of brands, the vast majority of which are foreign. Until recently, Ukraine did not have its own sports nutrition production despite the availability of a substantial raw material base. According to Euromonitor International, due to economic instability, Ukrainian consumers have increasingly preferred lower-priced sports nutrition products. Before the economic crisis, brands from the United States were the most popular among consumers; however, since 2015, manufacturers from Poland (FitMax, AllNutrition) have gained increased demand among Ukrainian consumers [12].

Sports nutrition products are suitable for a broad sports-oriented audience but should be selected according to individual goals. The global and Ukrainian trends toward a healthy lifestyle, environmental awareness, and an active rhythm of life are developing rapidly. These trends contribute to the overall growth of the industry by expanding the network of sports complexes and gyms and increasing demand for dietary programs and vitamin supplements.

The current state of sports nutrition (SN) development in Ukraine was reviewed using the network of sports nutrition stores *AthleteMarket* as an example. The *AthleteMarket* store began operations in Kyiv in 2010, offering a wide range of products for athletes involved in bodybuilding, fitness, running, and other sports. Free courier delivery from five brick-and-mortar stores is available in Kyiv. One store (20.0% of all outlets) is located in a large shopping center (*Smart Plaza*) with a sales area of 25-40 m². Small retail outlets located in the *Ocean Plaza* shopping mall (sales area 5-9 m²) and a store situated in a high-traffic area (*Yellow Row, AthleteMarket* pavilion; sales area 10-25 m²) together account for 40.0% of outlets [14].

The company is expanding its presence by entering other cities in Ukraine. At the time of the study, the *AthleteMarket* online store operated in 15 cities, including Odesa, Dnipro, Zaporizhia, Kharkiv, Vinnytsia, and Kryvyi Rih. Sports nutrition products can be ordered with delivery to any city in the country. The company offers competitive prices, regular discounts, and promotional campaigns, enabling consumers to purchase quality sports nutrition products and related items (clothing, accessories) at reduced prices. Products are also available through the *Atlet (sports food)* section of the *AthleteMarket* online store. The assortment includes both low-cost products, such as BCAA Shot (1 ampoule, *BioTech*, USD 1.41), and premium sports nutrition products, such as Platinum HydroWhey (1590 g, *Optimum Nutrition*, USD 73.08).

The online store offers a wide variety of sports nutrition products, including gainers (high-protein and high-carbohydrate), plant- and animal-based proteins, amino acids, creatine, fat burners, pre- and post-workout supplement complexes that enhance training effectiveness and recovery, energy products, isotonic drinks, meal replacements, protein bars, dietary supplements, vitamins, and vitamin complexes based on natural ingredients.

An analysis of the assortment structure of the *AthleteMarket* online store showed that products are available in five dosage forms. Solid forms dominate (96.0%), whereas liquid forms account for only 4.0%. Solid forms include

powders (65.0%), capsules (21.0%), tablets (6.0%), and confectionery sticks (4.0%).

An analysis of the countries of origin of sports nutrition products sold through the *AthleteMarket* online store revealed a high level of import dependence (Fig. 2). The majority of products originate from the United States (80.0%), including *Weider* (18.4%), *Kevin Levrone* (14.3%), *Optimum Nutrition* (9.5%), *BioTech* (8.6%), *Universal Nutrition* (6.7%), and others. Products from Poland account for 10.0%, represented by *FitMax* (4.8%) and *AllNutrition* (3.8%). Unfortunately, Ukrainian manufacturers represent only 10.0% of the assortment, including *Fitness Factor* (1.0%) and *Levobol* (1.0%).

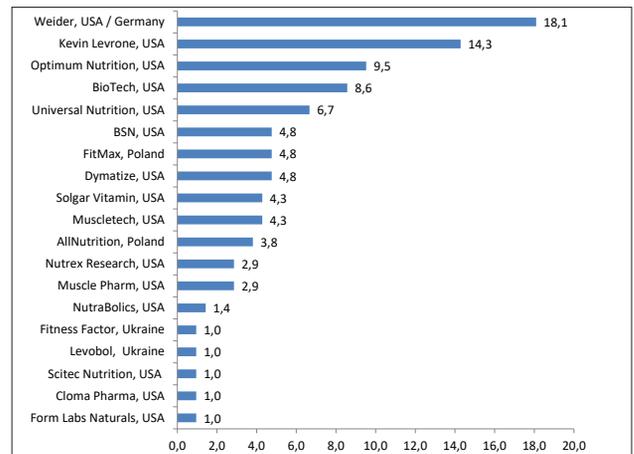


Figure 2. Ranking of sports nutrition assortment by producer country (%)

Flavor selection is an important factor for consumers of sports nutrition products, as a variety of pleasant flavors and aromas increases consumer satisfaction. Therefore, a study of flavor preferences among sports nutrition products offered in the *AthleteMarket* online store was conducted. A total of 54 product offerings were identified. A detailed analysis of the number and proportion of sports nutrition products by flavor is presented in Table 2. Leading positions, accounting for 41.1% of the assortment, are occupied by vanilla (17.1%, 20 products), as well as chocolate and strawberry flavors (12.0% each, 14 products). Mid-range positions are occupied by banana (6.0%, 7 products), orange (3.4%, 4 products), and cookie cream (2.6%, 3 products).

The *AthleteMarket* website includes an *ATLET Franchise* section presenting a business plan for opening an *AthleteMarket* online store in any city in Ukraine (Fig. 3).



Figure 3. Franchise model offered by *AthleteMarket* for opening sports nutrition retail stores

The cooperation formats proposed by *AthleteMarket* for opening new sports nutrition and sports-related product outlets are shown in Fig. 4 (*Atlet T-Post, Atlet Shop, Atlet*

Table 2. Distribution of sports nutrition products by flavor type

Flavor type	Number of offers	Share (%)	Flavor type	Number of offers	Share (%)	Flavor type	Number of offers	Share (%)
Vanilla	20	17.1	Mocha-cocoa	1	0.9	Cappuccino	1	0.9
Chocolate	14	12.0	Red berries	1	0.9	Mojito	1	0.9
Strawberries	14	12.0	Grapefruit	1	0,9	White chocolate-vanilla	1	0.9
Banan	7	6.0	Pear-apple	1	0.9	White chocolate-peanuts	1	0.9
Orange	4	3.4	Caramel cappuccino	1	0.9	Caramel	1	0.9
Cookie-cream	3	2.6	Blackberry	1	0.9	Hazelnut chocolate	1	0.9
Chocolate peanuts	3	2.6	Apple	1	0.9	Strawberry-pineapple	1	0.9
Raspberry	3	2.6	Kiwi	1	0.9	Cherry	1	0.9
Strawberry-banana	2	1.8	White chocolate-coconut	1	0.9	Pineapple-mango	1	0.9
Biscuits o	2	1.8	Banana-peach	1	0.9	Coconut	1	0.9
Milk chocolate	1	0.9	Red grapefruit	1	0.9	Pistachios	1	0.9
Vanilla colostrum	1	0.9	Cherry-chocolate	1	0.9	Chocolate cocktail	1	0.9
Mango-passion fruit	1	0.9	Raspberry-yogurt	1	0.9	Coconut-chocolate	1	0.9
Mocha	1	0.9	Toffee-caramel	1	0.9	Coffee	1	0.9
Vanilla caramel	1	0.9	Vanilla-almonds	1	0.9	Strawberry cream	1	0.9
Bilberry	1	0.9	Fruit punch	2	1.8	Chocolate brownie	1	0.9

Store). Depending on the outlet format, a dedicated business plan is provided. It is proposed to open subsidiaries with an initial capital of USD 15,000-30,000. Outlet formats range from shopping islands to individual stores located in large shopping centers with a sales area of 5-40 m². Investment in products ranges from USD 10,000 to 20,000, while investment in store setup ranges from USD 5,000 to 10,000.

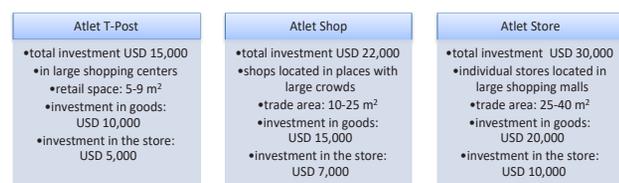


Figure 4. Cooperation formats offered by AthleteMarket for opening new sports nutrition retail outlets

Despite the relevance of the topic, the number of scientific publications addressing sports nutrition remains limited and insufficient for the development of a modern culture of sports nutrition consumption in Ukraine, indicating the need for further research.

CONCLUSIONS

Market forecasts from leading research groups (e.g., Zion Market Research, Transparency Market Research) indicate a consistent upward trend in SN consumption. The global SN market is projected to achieve a compound annual growth rate (CAGR) of 8.1% to 11.0% by 2024, potentially reaching an absolute value of USD 90 billion worldwide.

Since 2015, economic instability has led to a restructuring of the Ukrainian SN market. Consumer preference has shifted toward more affordable products, creating significant opportunities for domestic manufacturers such as Levobol and Fitness Factor. Nevertheless, the market remains dominated by established North American corporations, including Universal Nutrition, Weider, and Optimum Nutrition.

Analysis of the "AthleteMarket" online product range revealed that SN is available in five primary dosage forms. Solid forms predominate (96.0%), consisting of powders (65.0%), capsules (21.0%), tablets (6.0%), and confectionery bars (4.0%). The assortment includes 54 distinct flavor profiles, with vanilla (17.1%), chocolate (12.0%), and strawberry (12.0%) being the most prevalent.

The "ATLET Franchise" business model offers a structured framework for market entry in Ukraine. Key financial and operational parameters include an entry fee of 15.0% of the total investment (minimum USD 1,861), requirements for premises ranging from 5 to 40 m², and comprehensive legal, accounting, and educational support. The model projects a guaranteed profit potential of up to USD 5,000.

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REFERENCES

- Aranson MV, Portugalov SN. Sports nutrition: the state of the issue and current challenges. *Med Biol Probl Sport*. 2013;(4):33-37.
- Tomaieva IR, Breusova SV, Demyanenko VG, Baranova II. Commodity aspects in research of sports nutrition as low-assortment pharmaceutical goods. In: *Topical issues of new drugs development*. Abstracts of International Scientific and Practical Conference of Young Scientists and Students; 2015 Apr 23; Kharkiv. p. 712.
- Koshelnyk AV. Analysis of organoleptic properties of dietary supplements for the recovery of athletes. In: *Actual problems of the theory and practice of examination of goods*. Materials of the V International Scientific and Practical Internet Conference; 2018 Mar 20-22. p. 94-95.
- European Food Safety Authority. Scientific and technical assistance on food intended for sportspeople. EFSA Technical Report. 2015 Sep 29. Available from: <https://www.efsa.europa.eu/en/supporting/pub/en-871>

5. Peeling P, Castell LM, Derave W, de Hon O, Burke LM. Sports foods and dietary supplements for optimal function and performance enhancement in track-and-field athletes. *Int J Sport Nutr Exerc Metab.* 2019;29(2):198-209. doi: 10.1123/ijsnem.2018-0271.
6. ResearchAndMarkets.com. *Global Sports Nutrition Market to 2024.* [Internet]. 2020. Available from: <https://www.researchandmarkets.com/reports/5175219/>
7. Castell LM, Nieman DC, Bermon S, Peeling P. Exercise-induced illness and inflammation: Can immunonutrition and iron help? *Int J Sport Nutr Exerc Metab.* 2019;29(2):181-188. doi: 10.1123/ijsnem.2018-0288.
8. European Commission Directorate General for Health and Food Safety. *Study on food intended for sportspeople: Final Report.* [Internet]. 2015 [cited 2021 Dec 10]: 118. Available from: https://ec.europa.eu/food/system/files/2016-10/fs_labelling-nutrition_special_study.pdf
9. Zion Market Research. *Reports* [Internet]. 2021. Available from: <https://www.zionmarketresearch.com/all-reports>
10. Transparency Market Research. *Latest Reports* [Internet]. 2021. Available from: <https://www.transparencymarketresearch.com/latest.htm>
11. Technavio. *Newsroom* [Internet]. 2021. Available from: <https://blog.technavio.com/newsroom>
12. Euromonitor International. *Reports* [Internet]. 2021. Available from: <https://www.euromonitor.com/>
13. Spraul T. *TOP 10 most valuable supplement companies* [Internet]. 2020. Available from: <https://www.exercise.com/learn/top-10-most-valuable-supplement-companies/>
14. AtletMarket. *Sports nutrition products* [Internet]. 2021. Available from: <https://www.atletmarket.com.ua/>