

PRODUCTION CHARACTERISTICS AND DYNAMICS OF AVERAGE RETAIL PRICES FOR SWEET SOFT DRINKS IN AZERBAIJAN

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Abstract. *Introduction.* Most of the population in our and many other countries around the world is deficient in micronutrients and nutrients. A significant role in replenishing them belongs to functional and preventive food products, including soft drinks that have functional properties. *Purpose of the study:* Assess the state of the market and production of sweet soft drinks and forecast its development for 2023-2027. *Research objectives:* To describe the situation on the Azerbaijani market of sweet soft drinks, to provide current information on the volume of production of goods by year and region of Azerbaijan. *Research results.* Over the past five years, there has been an increase in the production of soft drinks. In 2022, the production of soft drinks in the Republic of Azerbaijan as a whole amounted to 41417.5 thousand decaliters, i.e. the increase by 2020 was 44.8%. Data analysis shows that the undisputed leader in this sector is the city of Baku. Here, in 2020, 26,492.8 thousand decalitres of soft drinks were produced, the increase by 2018 was 47.7% and in 2022, 39,698.2 thousand decalitres of soft drinks were produced, the increase by 2020 was 49.9%. The average retail price for lemonade in 2021 increased by 3.3% compared to last year and amounted to 1.54 manats/l, for cola increased by 5.5% and amounted to 1.07 manats/l and for energy drinks increased by 2.6% and amounted to 0.89 manats/0.25 l. *Conclusions.* Research results show that the market for sweet soft drinks in the Republic of Azerbaijan for 2018-2022. It is developing dynamically and the leader in this sector is the Baku Economic Region (Baku). The volume of production of sweet soft drinks in Azerbaijan in 2022 amounted to 50,386 thousand decalitres and the increase by 2020 was 30.7%. According to forecasts in 2027, production will increase by 69.4% by 2022 and amount to 85,330 thousand decalitres.

Keywords: *Soft drink, micronutrient, market, production, price region, forecast.*

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1. Introduction

Adequate nutrition is the main factor determining the health of the population, most of which in our and many other countries of the world are deficient in micronutrients and nutrients. A significant role in their replenishment belongs to functional and preventive foods. They should help eliminate nutritional deficiencies, prevent the penetration of foreign components into the body and the effects of unfavorable physical factors of production or the environment. This is achieved by including special foods and biologically active additives in the diet that enhance the physiological functions of the human body (Maharramov, 2015; Kotova, 2017; Bibik, 2016).

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A convenient form of adding nutrients, including vitamins and antioxidants, to food products is drinks that have functional properties, so their consumption can significantly improve human health. Beverages are mainly divided into juices, mineral waters, soft drinks, energy drinks and sports drinks. Drinks with biologically active substances have a wide spectrum of action, without increasing the calorie content of the diet, eliminating the deficiency of micronutrients, the need for which increases in a growing organism (Maharramov *et al.*, 2019; Maharramova & Maharramov, 2023; Fernandes *et al.*, 2018).

Theoretical aspects

Soft drinks are an important part of the diet. They serve as sources of carbohydrates, vitamins, soluble fiber, organic acids, minerals and other nutrients. From a consumer point of view, great importance is attached to the drink's ability to quench thirst and its organoleptic properties (Polyakov, 2017; Alsunni, 2015).

A non-alcoholic drink is a ready-made drink made using drinking or mineral water with a total mineralization of no more than 1.0 g/dm³, a volume fraction of ethyl alcohol of no more than 0.5% and for drinks based on alcohol-containing raw materials no more than 1.2% (GOST 28188-2014, 2019; Kotova, 2016).

In 2017–2019 global consumption of soft drinks showed a strong growth rate of 2.9% per year on average, but at the end of 2020, due to the COVID-19 pandemic, there was a decrease in consumption volumes of 4.6% in volume terms and by 11.5% in value terms. In 2021, consumption showed a complete recovery, increasing compared to 2020 by 4.6% in volume terms and by 12.7% in value terms. According to preliminary estimates for 2022, global consumption of soft drinks grew by 3.8% in volume terms and by 9.3% in value terms to reach 795.6 billion liters (\$967.3 billion).

In the structure of global consumption of soft drinks, the largest share (46.4% in 2022) was accounted for by bottled water. Followed by sodas (29.4%), juices (8.6%), energy drinks (2.0%) and sports drinks (1.9%). The largest increase in consumption volumes for 2017–2022 was observed in the categories of energy, sports drinks and bottled water, while the market for sweet carbonated drinks showed fairly moderate growth of an average of 0.9% per year (Market of sweet soft drinks in Azerbaijan, 2023; Workman, 2023).

Soft drinks are designed primarily to satisfy the body's need for water. In addition, some drinks satisfy the need for minerals and vitamins. This causes an increase in demand for drinks in the hot season due to an increase in the body's daily need for water (Kotova, 2017; Erdmann *et al.*, 2021).

Non-alcoholic drinks are divided into waters: drinking, natural mineral, artificially mineralized; as well as soft drinks with juice, with vegetable raw materials, tonic and energy drinks, with grain raw materials, with flavorings, fruit drinks, specialized; juices and nectars, concentrates, extracts, syrups, dry juices and powders for preparing drinks.

In this article we will look at the benefits and harms mainly of drinks with added sugar, as well as drinking and mineral waters.

The healing properties of mineral waters were known already four thousand years ago in Ancient Greece and Ancient Rome. The great scientist Hippocrates, in his treatise "On Airs, Waters and Places", writes that the sick were treated in mineral water fountains at churches. Greek priests strictly guarded their secrets, protecting the healing power of mineral water (Nikolaeva & Pekareva, 2019).

Currently, you can find carbonated and still mineral and drinking water on store shelves. Still water contains dissolved mineral salts and various chemical elements, mainly sodium, potassium and calcium salts. It has a vital function in the development

and functioning of the human body, since it satisfies the human body's need to create and maintain water homeostasis and the mineral substances dissolved in it satisfy plastic needs and are used in the construction of tissues and biological fluids.

The daily need for water is 2.5-3 liters per day or 30 ml per kg of human body weight. In the hot season, this need increases to 50 ml of water per kg of body weight.

Water acts as a universal solvent, due to which many nutrients dissolved in it are better absorbed by the human body. In addition, many biochemical processes occur in water. Water is a participant in hydrolytic processes, as well as a medium for metabolic processes (Maharramov, 2015; Nikolaeva & Pekareva, 2019).

Taking into account the above, we conducted a study of the state of the Azerbaijani market for sweet soft drinks.

The study contains up-to-date information on the Azerbaijani market for sweetened soft drinks as of 2022.

Purpose of the study: Assess the state of the market and production of sweet soft drinks and forecast its development for 2023-2027.

Geography of research: Republic of Azerbaijan and regions of Azerbaijan.

Objectives of the study: Describe the situation on the Azerbaijani market of sweet soft drinks, provide current information on the volume of production of goods by year and region of Azerbaijan; assess the main market participants, as well as the characteristics of their activities; analyze the price dynamics of the retail sector; predict its development in the medium term.

Main blocks of research:

- Analysis of current indicators of socio-economic development of Azerbaijan
- Volume of apparent consumption in the Azerbaijani market of sweetened soft drinks

- Production of sweet soft drinks in Azerbaijan
- The largest Azerbaijani manufacturers in the industry
- Retail prices on the Azerbaijani market of sweet soft drinks
- Analysis of factors influencing the development of the sweetened soft drinks market

- Forecast for the development of the Azerbaijani market of sweet soft drinks for 2023-2027.

Sources of information used in the study:

- State Committee on Statistics of the Republic of Azerbaijan;
- State Customs Committee of the Azerbaijan Republic (SCC of Azerbaijan);
- Ministry of Economy of the Republic of Azerbaijan;
- Ministry of Finance of the Azerbaijan Republic;
- Central Bank of the Azerbaijan Republic;
- International Trade Center (ITC);
- UN Statistics Division;
- Assessments by industry experts;
- Materials from manufacturing companies and market participants.

2. Results and its discussion

Volume of production of soft drinks in the Republic of Azerbaijan by year 2018-2022 is shown in Table 1.

Table 1. Volume of production of soft drinks in the regions of the Republic of Azerbaijan by year 2018-2022 (thousand gave)

Regions	Years				
	2018	2019	2020	2021	2022
Baku city	17936,2	23748,3	26492,8	36951,7	39698,2
Absheron district	2067,5	2534,0	1801,5	741,7	841,8
Gabala district	3613,2	266,6	141,7	443,0	519,4
Nakhchivan Autonomous Republic	7,0	6,1	23,2	294,9	279,4
Gadabay district	30,1	41,6	67,2	82,2	55,5
Goygol district	103,4	225,7	77,0	14,9	0,1
Balakhani district	-	-	14,5	4,5	-
Republic of Azerbaijan, total	23757,0	26827,9	28619,3	38550,0	41417,5

Source: Compiled by the author based on materials from (Market of sweet soft drinks in Azerbaijan, 2023; Erdmann *et al.*, 2021; State Statistics Committee of the Republic of Azerbaijan, 2013)

The data is given in Table 1 shows that over the past five years there has been an increase in the production of soft drinks. In 2020, the increase compared to 2018 was 20.5% and the production of soft drinks reached 28,619.3 thousand decaliters. And in 2022, the production of soft drinks in the Republic of Azerbaijan as a whole amounted to 41,417.5 thousand decaliters, i.e. the increase by 2020 was 44.8%.

Regarding production in 2018-2020 soft drinks in the regions of Azerbaijan, then data analysis shows that the undisputed leader in this sector is the city of Baku. Here, in 2020, 26,492.8 thousand decalitres of soft drinks were produced, the increase by 2018 was 47.7% and in 2022, 39,698.2 thousand decalitres of soft drinks were produced, the increase by 2020 was 49.9%. The production of soft drinks in this region accounts for 95.9% of the country's total production.

The second largest subject is the Absheron region (841.8 thousand decalitres). The top three is closed by the Gabala region with a production volume of soft drinks of 519.4 thousand decaliters.

The dynamics of the production volume of sweet soft drinks in Azerbaijan in 2018-2021 (thousand decalitres) are shown in Figure 1.

Analysis of the dynamics of production volume of sweet soft drinks in Azerbaijan by year in 2018-2021 shows that over the past three years there has been an increase in the production of sweet soft drinks in Azerbaijan.

In 2020, the production volume of sweet soft drinks increased by 6.7% and amounted to 28,619.3 thousand decaliters.

In 2021, 34.7% more sweet soft drinks were produced than in 2020 and at the end of the year the production volume amounted to 38,550.6 thousand decaliters.

According to the State Statistical Committee of the Republic of Azerbaijan (Erdmann *et al.*, 2021), in 2022 the country produced a total of 7.5% more, i.e. 41418.0 thousand decalitres of sweet soft drinks.

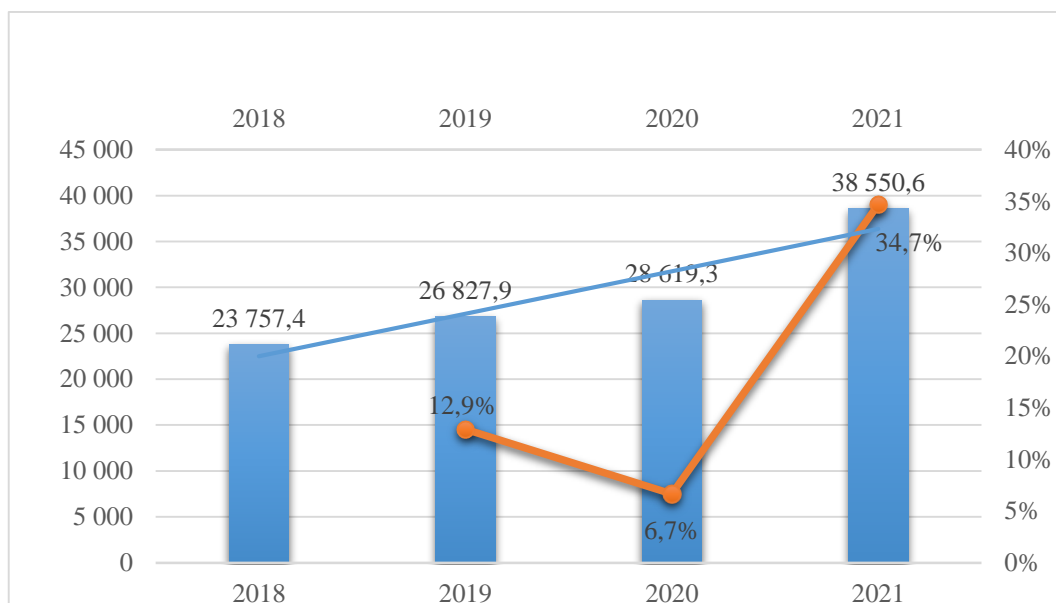


Figure 1. Dynamics of production volume of sweet soft drinks in Azerbaijan in 2018-2021 (thousand decalitres)

Source: Compiled by the author based on materials from (Market of sweet soft drinks in Azerbaijan, 2023; State Statistics Committee of the Republic of Azerbaijan, 2013; Food balances of Azerbaijan; 2023)

Table 2. Production volumes of sweet soft drinks in the regions of Azerbaijan in 2018-2021 (thousand decalitres)

Regions	2018	2019	2020	2021
Baku economic region (Baku city)	17 936,2	23 748,3	26 492,8	36 951,7
Absheron region	2 067,5	2 534,0	1 801,5	741,7
Gabala district	3 613,2	266,6	141,7	443,0
Nakhchivan economic region	7,0	6,1	23,2	294,9
Gadabay district	30,1	41,6	67,2	82,2
Goygol district	103,4	225,7	77,0	14,9
Balakan district	-	-	14,5	4,5

Source: Compiled by the author based on materials from (Market of sweet soft drinks in Azerbaijan, 2023; State Statistics Committee of the Republic of Azerbaijan, 2013; Food balances of Azerbaijan; 2023)

A detailed analysis of the regional nature of the production of sweet soft drinks (Table 2 and Figure 2) show that the leader in this sector in 2021 is the Baku economic region (Baku). The percentage of production of sweet soft drinks in this region is 95.9% (36,951.7 thousand decaliters) of the country's total production.

The second largest subject is the Absheron region (741.7 thousand decalitres). The top three is closed by the Gabala region with a production volume of sweet non-alcoholic drinks of 443.0 thousand decaliters.

Further, according to the results of 2021, the fourth place is occupied by the Nakhchivan Autonomous Republic (production volume 294.9 thousand decaliters), the fifth, sixth and seventh places are occupied by the Gadabay, Goygol and Balakan regions, with a production volume of 82.2 thousand decaliters, respectively, 14.9 thousand gave and 4.5 thousand gave.

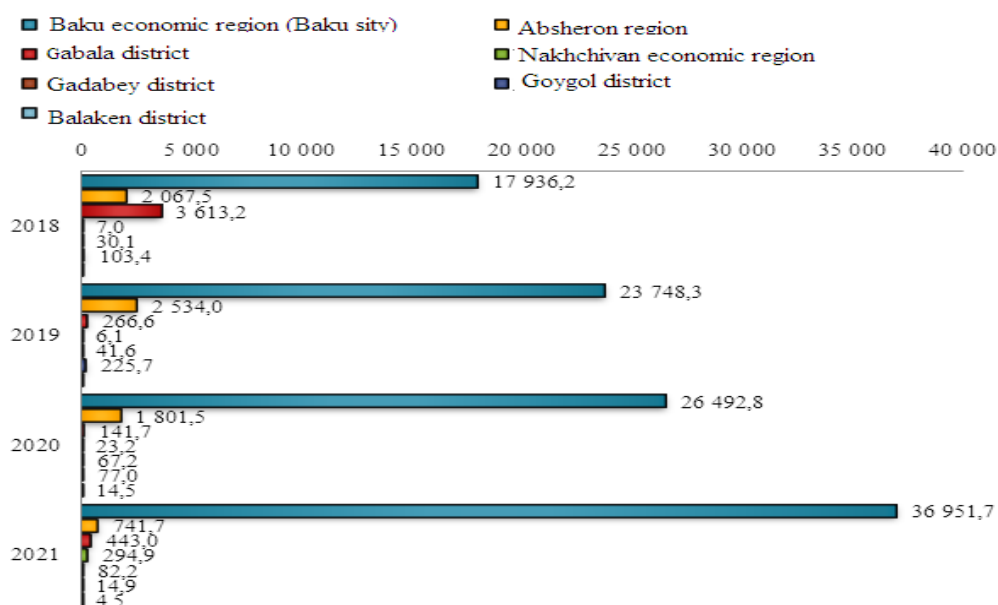


Figure 2. Histogram of the dynamics of production of sweet soft drinks in the main regions of Azerbaijan in 2018-2021 (thousand decalitres)

Source: Compiled by the author based on materials from (Market of sweet soft drinks in Azerbaijan, 2023; State Statistics Committee of the Republic of Azerbaijan, 2013; Food balances of Azerbaijan; 2023)

As can be seen from Table 3, Figure 3 and from the data of the State Statistics Committee of the Republic of Azerbaijan (Erdmann *et al.*, 2021), the share of production of sweet soft drinks in the Baku economic region in 2021 compared to 2018 increased from 75.5% to 95.9%. And in the Absheron, Gabala, Nakhchivan, Gadabay, Goygol and Balakan regions as a whole, it decreased from 24.5% in 2018 to 4.1% in 2021. Here, the exception was the Nakhchivan Autonomous Republic, where the share of production of sweet soft drinks increased from 0.03% in 2018 to 0.77% in 2021.

Regional structure of Azerbaijani production of sweet non-alcoholic drinks in 2018-2021 are given in Table 3 and Figure 3.

Table 3. Regional structure of Azerbaijani production of sweet soft drinks in 2018-2021 (in percent)

Regions	2018	2019	2020	2021
Baku economic region (Baku city)	75,50%	88,54%	92,57%	95,90%
Absheron region	8,70%	9,45%	6,30%	1,92%
Gabala district	15,21%	0,99%	0,50%	1,15%
Nakhchivan economic region	0,03%	0,02%	0,08%	0,77%
Gadabay district	0,13%	0,16%	0,23%	0,21%
Goygol district	0,44%	0,84%	0,27%	0,04%
Balakan district	-	-	0,05%	0,01%

Source: Compiled by the author based on materials from (Market of sweet soft drinks in Azerbaijan, 2023; Erdmann *et al.*, 2021; State Statistics Committee of the Republic of Azerbaijan, 2013)

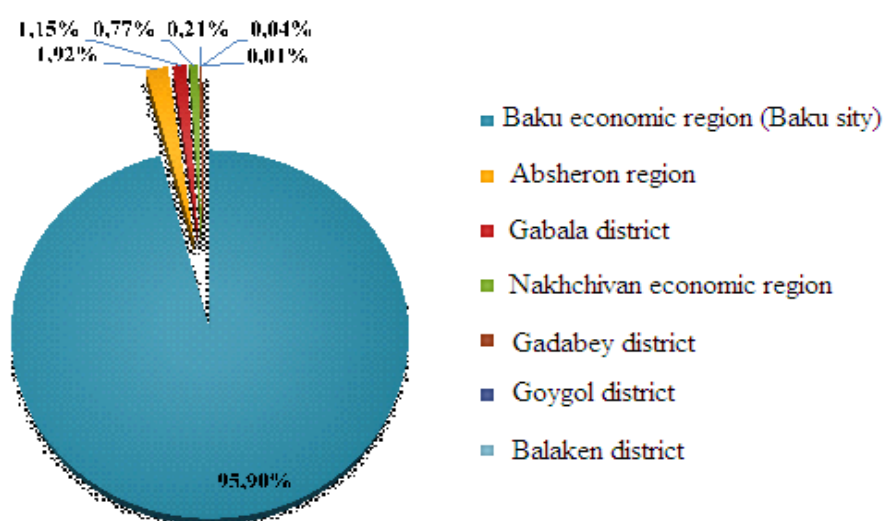


Figure 3. Regional structure of Azerbaijani production of sweet non-alcoholic drinks in 2021 (in percent)

Source: Compiled by the author based on materials from (Market of sweet soft drinks in Azerbaijan, 2023; State Statistics Committee of the Republic of Azerbaijan, 2013)

The main producers of sweet soft drinks in the Republic of Azerbaijan are: in the Baku economic region, Limited Liability Company (LLC) “Azerbaijan Coca-Cola bottlers”, LLC “Mars overseas Baku LTD”, LLC “Avrora”, LLC “Berg energy” etc., in the Goychay region Aznar closed joint-stock company, in the Gabala region “Qəbələ Konserv Zavodu” LLC, in the Absheron region “Ayan” LLC, “Carlsberg Azerbaijan” LLC etc., in the Gadabay region “Gədəbəy Mineral Suları” LLC etc. (Market of sweet soft drinks in Azerbaijan, 2023).

As is known, retail prices for consumer goods are the final prices for consumer goods at which the population purchases them. Therefore, their establishment and registration are of no small importance for the socio-economic state of the country’s population (Guliyev, 2018).

Registration of prices for goods and services is carried out by local statistical authorities of Azerbaijan throughout the country. The monitoring includes selected representative retail outlets, markets and organizations of all forms of ownership and organizational and legal forms, as well as places where products are sold and paid services are provided to the population. In the process of monitoring retail outlets, the regularity, mass distribution, range of consumer goods (services) sold at a given outlet (catering), as well as the sale of both domestic and imported products are taken into account.

Dynamics of average retail prices for cola, as the most common soft drink in Azerbaijan, by year in 2018 - 2021 (Figure 4).

As can be seen from Figure 4 in the period 2018-2021 average retail prices for cola increased by 18.9%, from 0.90 manats/l to 1.07 manats/l. The largest increase in average retail prices occurred in 2019, when the growth rate was 6.7%.

The average retail price for cola in 2021 increased by 5.5% compared to last year and amounted to 1.07 manat/l.

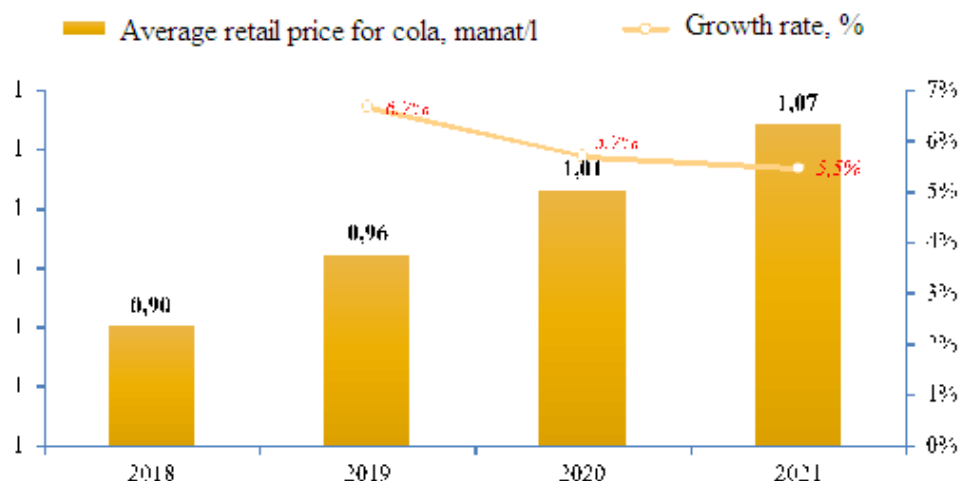


Figure 4. Dynamics of average retail prices for cola in Azerbaijan in 2018 - 2021 (manat/l)
Source: Compiled by the author based on materials from the State Statistics Committee, Ministry of Economy and Finance of the Republic of Azerbaijan and Market of sweet soft drinks in Azerbaijan, 2023

The data shown in Figure 5 shows that in the period 2018-2021 average retail prices for lemonade increased by 17.6%, from 1.31 manats/l to 1.54 manats/l. The largest increase in average retail prices occurred in 2020, when the growth rate was 7.2%.

The average retail price for lemonade in 2021 increased by 3.3% compared to last year and amounted to 1.54 manats/liter.

Dynamics of average retail prices for lemonade in Azerbaijan by year in 2018- 2021 shown in Figure 5.

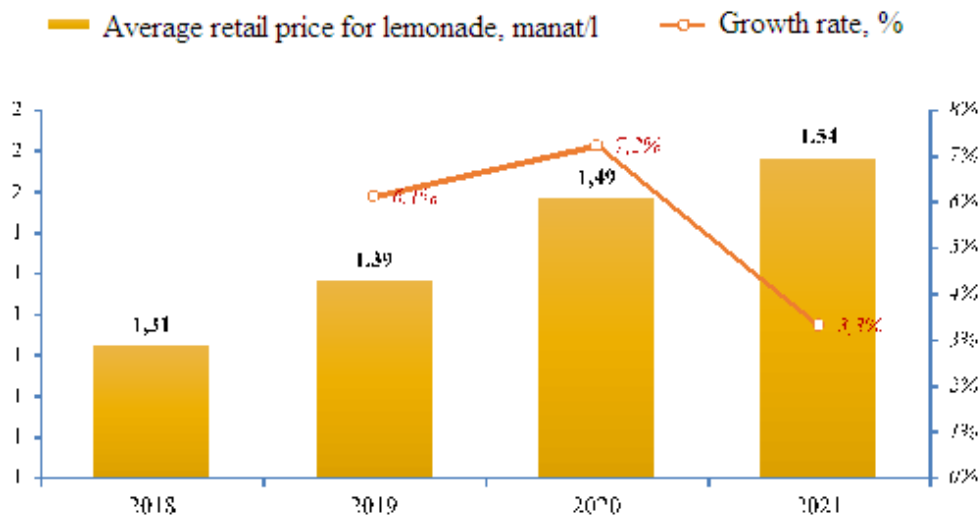


Figure 5. Dynamics of average retail prices for lemonade in Azerbaijan in 2018-2021 (manat/l)
Source: Compiled by the author based on materials from the State Statistics Committee, Ministry of Economy and Finance of the Republic of Azerbaijan and Market of sweet soft drinks in Azerbaijan, 2023

Dynamics of average retail prices for energy drinks in Azerbaijan by year in 2018-2021 shown in Figure 6.

As can be seen from Figure 6 in the period 2018-2021 average retail prices for energy drinks fell by -19.8%, from 1.11 manats/0.25 l to 0.89 manats/0.25 l. The largest drop in average retail prices occurred in 2019, when the growth rate was -14.4%.

The average retail price for an energy drink in 2021 increased by 2.6% compared to last year and amounted to 0.89 manats/0.25 liters.

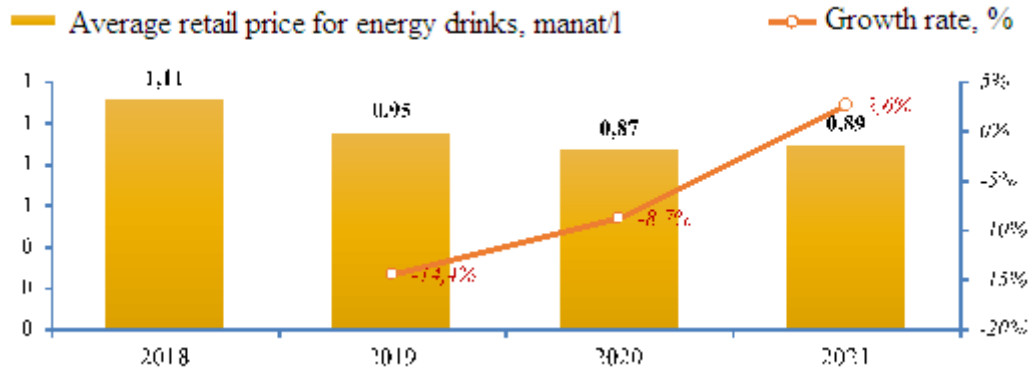


Figure 6. Dynamics of average retail prices for energy drink in Azerbaijan in 2018 - 2021 (manat)

Source: Compiled by the author based on materials from the State Statistics Committee, Ministry of Economy and Finance of the Republic of Azerbaijan and Market of sweet soft drinks in Azerbaijan, 2023

Based on the existing dynamics for 2019-2022, as well as market data for 2022 and taking into account the factors influencing the market, we have compiled a forecast for the development of the sweetened soft drinks market for the medium term until 2027.

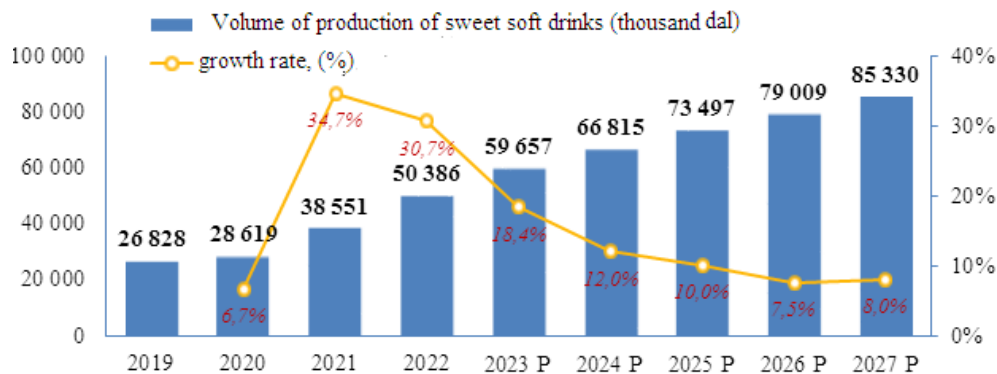


Figure 7. Dynamics of the production volume of sweet soft drinks in the Republic of Azerbaijan for 2019-2022 and forecast for 2023-207 (thousand decalitres and %)

Source: Compiled by the author based on materials from Market of sweet soft drinks in Azerbaijan, 2023; State Statistics Committee of the Republic of Azerbaijan, 2013; Food balances of Azerbaijan, 2023

As can be seen from Figure 7, the volume of production of sweet soft drinks in Azerbaijan in 2022 amounted to 50,386 thousand decaliters and the increase by 2020 was 30.7%. According to this forecast, in the period 2023-2027 production will increase by 69.4% to 85,330 thousand decaliters. For 2023 and 2024 the production growth rate will be 18.4% and 12.0%, respectively.

3. Conclusions

As shown by the results of studies of the state of the market for sweet soft drinks in the Republic of Azerbaijan for 2018-2022. The production of these drinks is developing dynamically and the leader in this sector in 2021 is the Baku Economic Region (Baku). The percentage of production of sweet soft drinks in this region is 95.9% of the country's total production. Therefore, it is necessary to take radical measures to create new and expand existing production facilities for the production of sweet soft drinks in various regions of the Republic, involving local raw materials, labor, energy and material resources in production. This will create additional jobs in the regions and improve employment of the local population, make more widespread use of local raw materials, including wild and medicinal plants and obtain more environmentally friendly functional drinks enriched with micronutrients.

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