

## CONSUMER BEHAVIOR AND AGRICULTURAL CONSUMER MARKET

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### **Abstract**

*The fact that the market is the main trading instrument influencing the development of the national economy makes it necessary to analyze the lessons of all the factors that will affect its development. Consumer markets have a significant share of daily demand. Therefore, the article analyzes the behavior of consumers of agricultural products. It describes many factors that affect consumer behavior. The study argues that consumer behavior is not only affected by price and income factors. There are dozens of external factors that affect consumer behavior. Studies show that many factors can influence consumer choices, from social factors to psychological factors. The article graphically describes consumer behavior under the influence of these factors. The article also provides information on per capita consumption and market prices of agricultural products in Azerbaijan. Proposals have been put forward to stimulate the development of consumer markets in Azerbaijan.*

**Key words:** behavior of consumers, agricultural products, consumer choices, income, pricing policy

### **INTRODUCTION**

Since inception, society has been in constant contact with nature to meet the products of daily needs. Society has been influenced by nature in order to meet the demand for food. Society tried to shape nature as he wished in order to meet of the needs. There is only one economic goal behind this. This is related to meeting society's demand for food and non-food products. Thus, the strengthening of mutual relations and the growing productivity of labor eventually led to the creation and development of new types of shopping centers. However, it is undeniable that there are some differences between past and present consumers. Thus, although the main purpose of consumers in the primary market is to meet only the demand for essential food products, these behaviors are different in the modern consumer [2]. Changes in the socio-economic interests of modern consumers have also affected their behavior towards food and non-food products. As the market accelerates the development of the national economy, increasing the sales share of the market is always in the spotlight. The market also provides related industries with both raw materials and other means of production. The market is also interacting with the industries

that produce the means of production [4]. Therefore, all the factors affecting the development of the market should be kept in focus, and by influencing these factors, the development of the market should not be delayed. For this purpose, the article examines the factors influencing the economic interests and choices of consumers in the consumer goods market. Attention was paid to the possibility of a positive impact of these factors on the market of agricultural consumer products in Azerbaijan.

### **MATERIALS AND METHODS**

The article analyzes the factors affecting the amount of goods consumed by the consumer in the market. Attention was paid to the economic and social impact of the factors. Attention was drawn to changes in consumer demand under the influence of both price and non-price factors. In addition, non-price factors and psychological factors that determine consumer behavior were identified. The article also provides information on self-sufficiency opportunities in the agricultural market of Azerbaijan and compares it at the international level. For this purpose, mathematical, statistical, analysis, synthesis, logical methods were widely used. The tables

created in the article are based on Microsoft Excell 2010 version. The graphs in the article are based on economic theory. The tables containing statistical data in the article are based on the data of the State Statistics Committee of the Republic of Azerbaijan.

## RESULTS AND DISCUSSIONS

The market of agricultural consumer goods provides the realization of the majority of products with a high share in daily consumption. Especially at a time when economic crises are replacing each other in the world, the impact of the pandemic on the economy is expanding, and the population is constantly growing, it is necessary to reliably meet consumer demand for food. It is known that the agricultural consumer market is affected by changes in fuel and equipment of production. This leads to more or less fluctuations in commodity prices in the consumer market. Changes in market prices of goods lead to a reduction in the volume of products consumed by low-income people. Such consumers are encouraged over time to consume a close substitute for those products. However, substitute products often do not have the same quality as previous products. As a result, in the face of high prices, the consumer is forced to consume low quality products [6]. For this purpose, state regulatory tools are widely used in our country to prevent such cases. The validity of the agricultural seasonality factor can cause the market to have an abundance in different seasons of the year by product groups, and a shortage in other seasons. For this reason, seasonal fluctuations in product prices are observed in the market [2]. To this end, an in-depth analysis of these and other factors affecting the market becomes necessary. Here, the state intervenes in the market over time, causing the restoration of lost economic benefits for producers and consumers. In general, there are factors in agricultural bases that affect consumer behavior to one degree or another. In the agricultural consumer goods market, the following economic and social factors can influence the desires of consumers to consume goods:

- the price of the commodity;
- quality of goods;
- whether there is a substitute for the goods;
- whether necessary or unnecessary;
- price and income sensitivity of the commodity;
- close to the market;
- advertising, marketing activities;
- tastes, age group, family composition, climate, education, etc.

As noted in economic theory, a decrease in the price of a product causes the consumer to buy more of that product. Figure 1 shows the impact of declining vegetable prices on consumer preferences.

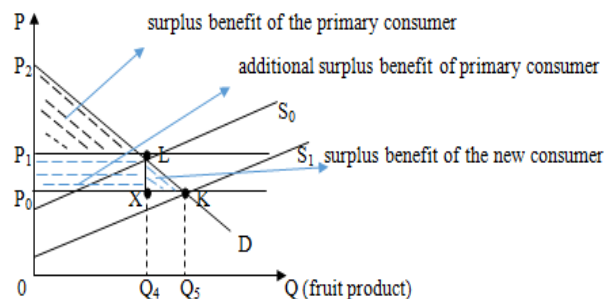


Fig. 1. Change of consumer surplus in the consumer market  
 Source:[6].

As we see when the price of fruit falls from  $p_1$  to  $p_0$ , its consumption increases by  $q_4$ - $q_5$  (Fig. 1). Thus, under the influence of price reductions, there is an increase in consumer behavior, and this occurs in two different volumes. In the first case, this increase is reflected in the change in previous consumer demand against the background of declining prices. In this case, the primary consumer receives additional benefits [8]. This volume corresponds to the area of the square  $Sp_1, p_0, x, l$  (Fig. 1). In another case, declining prices are explained by the entry of new consumers into the market. The additional benefits of new consumers correspond to the area  $\Delta S_1, x, k$ . It is known that fruit products are consumed more in the winter due to vitamin deficiency in the consumer goods market. An increase in the price of a particular  $x$  product in the market has two effects on the consumer: income and replacement effect. Therefore, the price and revenue effects

separately shows (Fig. 2). The consumer buys fruits and vegetables. The reduction in the price of vegetables allows the consumer with a stable income to buy more than vegetables. More precisely, the consumer with income gains at point  $f_0$  on the product  $x$  and  $y$  consumed at  $p_x, p_y$  prices. That is, it achieves maximum efficiency at the point where the indifference curve ( $ic$ ) touches the budget line. In this case, there is a decrease in the price of product  $x$ , which increases the real income of the consumer. Thus, according to the new income of the consumer, the budget line changes from  $y_1, x_1$  to  $y_1, x_2$ . As it is known, a new optimal point for the consumer is formed in the emerging budget line ( $f_1$ ). When we look at the newly formed optimal point for the consumer, we see that the amount consumed on the product  $x$  increases from  $x_0$  to  $x'_1$ , and this is the overall effect [6].

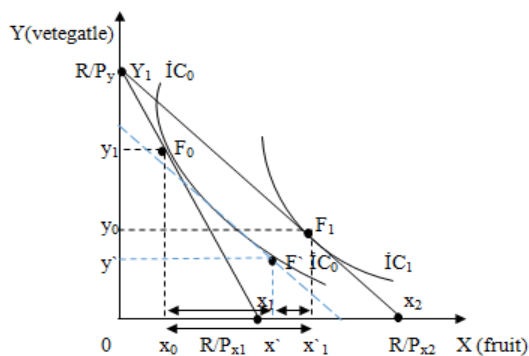


Fig. 2. Change in consumer behavior  
 Source: [2].

The behavior of the consumer as a result of the total price effect corresponds to the distance in the range  $x'_1 - x_0$  shown (Fig 2.) In the consumer market, the total effect is equal to the sum of the substitution ( $x' - x_0$ ) and income effects ( $x'_1 - x'$ ). Thus, the income effect forms a new budget line for fruit and vegetable production and an indifference curve ( $ic_1$ ), which reflects the volume of higher benefits. However, the product substitution effect causes the same indifference curve to move.

As noted, the impact of commodity price and revenue expectations on consumer behavior is high. Other factors influencing consumer behavior are related to social factors. Among such factors, the age group of the population,

family composition, education, advertising and many other factors to some extent affect consumer behavior [5]. Thus, the behavior of the older consumer is significantly different from the younger generation. People in this age group tend to eat healthier foods. Sustainable goods are preferred in their consumption. The opposite is observed in the younger generation [7]. Another factor influencing this was the advertising factor. This factor affects consumers to varying degrees depending on the age group and desire of the product's consumers. It stimulates the increase of the volume of goods to be consumed. After looking at important information about the impact of several social and economic factors on consumer behavior, it is important to look at the current situation in the national market, which affects consumer behavior.

Statistical figures shows the change in agricultural production in Azerbaijan over the past five years (Table 1). The change in the volume of basic agricultural products in 2020 compared to 2016 is calculated and noted in the last column. Looking at statistical figures production has increased significantly in various areas over the last five years compared to previous years. Among them, the production of potatoes, vegetables, fruits, grapes, tobacco, meat and eggs has increased significantly [10]. During this period, only a decrease in sugar beet production was observed, which is due to a comparative advantage. Thus, at a time when domestic production is expensive, the import of this product is considered more economically effective. When you look at the level of local self-sufficiency in these products, you can see that this volume is higher than in any previous year. Thus, ensuring consumption at the expense of local production solves such an important issue as food security. It is important to meet food security at the expense of increasing production over the years, to ensure the economic interests of consumers in the market. In particular, the location of the territory of Azerbaijan in the temperate climate zone allows production to be carried out twice a year. This provides consumers with access to a wide range of products in all

seasons. The partial disappearance of the seasonal principle due to climatic reserves, as a result, prevents sharp fluctuations in market prices. This situation also eliminates the need to import various types of products. It allows

the Azerbaijani consumer to buy the required quantity and quality of products. This also allows foreign currency to remain inside the country. It is also important for the development of the national economy.

Table 1. Dynamics of the main types of livestock products (thousand tons)

Products	2016	2017	2018	2019	2020	2020/2016 %
Cereals, (corn)	3,065.1	2,928.8	3,309.2	3,538.5	3,257.1	6.2
Potato	902.4	913.9	898.9	1,004.2	1,037.6	14.9
Sugar beet	312.6	410.1	277.2	218.5	253.3	-18.9
Vegetables	1,270.6	1,405.6	1,521.9	1,714.7	1,738.9	26.8
Fruits and berries	882.8	954.8	1,010.8	1,099.7	1,133.1	28.3
Grapes	136.5	152.8	167.6	201.8	208.0	52.3
Tea	1.02	0.78	0.87	0.93	0.93	9.6
Tobacco	3.6	5.3	6.3	6	6.9	91.6
Meat	523.8	540.5	556.6	573.3	591.1	12.8
Milk	2,009.1	2,024.1	2,080.4	2,150.8	2,192.5	9.1
Eggs	1,609.8	1,714.0	1,676.2	1,827.1	1,906.2	18.4

Source: The State Statistical Committee of the Republic of Azerbaijan.

If we pay attention, the needs of the country's population are fully met for many products (Table 1). There is an average dependence of 20-30% on imports only for grain products. However, from 2021, the involvement of new agricultural lands in production will ensure that a significant part of the supply is paid for by local production. Dependence on imports in this area will be eliminated or partially existing. In addition, there is a dependence on imports of 10-20 per cent of beef. This will meet the demand in the near future through the cultivation of new breeds by industrial methods. There is an effective government policy in this area that will meet the needs of consumers. This is the main goal of the state program "On reliable food supply of the population in the Republic of Azerbaijan in 2008-2015." Thus, the production of the main types of agricultural products produced in the required amount in our country helps consumers to make more optimal decisions [3]. It fully meets their demand for food and non-food products. The main factor influencing consumer behavior is the volume and quality of products produced in the domestic market. To do this, it is important to pay attention to the current situation in the domestic market of Azerbaijani food products through an international comparison of products produced in the domestic market [9]. Thus, Azerbaijan's domestic production,

which is growing in a short period of time, is able to meet the high level of domestic demand for key products. Important economic decisions taken to eliminate dependence on imports are bearing fruit in a short time. For this purpose, figures compare the production of agricultural products in the CIS countries (Table 2). These countries were economically close. These countries, which have a recent history in the CIS, in fact have a similar development. Countries in transition have similarities in many areas, especially in the agricultural sector. There are many similarities between the behavior of consumers in the countries included in this group. For more than seventy years, there has been both economic and social closeness between people living together in the same economic space. Thus, food and non-food products produced in a single economic space have become available to citizens of all countries of the union. This has led to a closeness between producer behavior over time. This can also be linked to joint economic decisions [1]. Here, the establishment of stable prices for products had a significant impact on consumer preferences. The state used this tool to determine the maximum and minimum price limits for products produced. This can be seen in the figures in the table. Statistical figures are reflected in the article to give an idea of the

agrarian consumer market. The data here show how the physical weight of production

in the CIS countries has changed in recent years.

Table 2. Physical volume index of agricultural production, in comparable prices (As a percentage of the previous year)

Years Country	Azerbaijan	Ukraine	Uzbekistan	Tajikistan	Russia	Moldova	Kyrgyzstan	Kazakhstan	Belarus
2017	104.2	97.8	101.2	106.8	103.1	109.1	102.4	103.0	104.2
2018	104.6	108.1	100.2	104.0	99.8	102.5	102.7	103.5	96.7
2019	107.2	101.1	102.5	107.1	104.0	98.1	102.6	100.9	102.9

Source: The State Statistical Committee of the Republic of Azerbaijan.

Figures show that there is no significant difference in the production of agricultural products in these countries (Table 2). The volume of production here has increased with each passing year due to the introduction of new technologies. This proves that consumers in those countries do not face severe market imbalances. As production does not fall sharply, consumers do not face high prices. This shows that the consumer does not face the lost economic benefits. Thus, if we pay attention, the growth of agricultural products in the Republic of Azerbaijan in 2019 was higher.

agreement and joint economic decisions have always been in the center of attention in this area. As know economic development in the CIS similar. The main factor determining consumer behavior, changes in the level of prices (Table 3). Here it is important to pay attention to price fluctuations over the years. At the same time, figures show how the consumer price index changes in the domestic market [12].

Table 3. Consumer price index international comparison

Country	2017	2018	2019
Azerbaijan	12.936	2.269	2.611
Georgia	6.035	2.615	4.853
Russia	3.683	2.878	4.47
Moldova	6.57	3.04	4.838
Kyrgyzstan	3.175	1.543	1.134
Belarus	6.032	4.872	5.598
Ukraine	14.438	10.952	7.887

Source: The State Statistical Committee of the Republic of Azerbaijan, International Monetary Fund, International Financial Statistics and data files.

This was achieved by bringing new species to the country. This has led to significant increases in both crop production and livestock. Large farms have been established, which has led to an increase in production compared to last year. As there are not many differences between countries in the consumer market, there are no sharp differences in prices between them. Thus, the customs

It turns out that the price change in the domestic market in 2017 was close between Ukraine and Azerbaijan. This figure decreased in 2018 due to the impact of economic decisions made in the Republic of Azerbaijan. In 2017, this may be explained by the decline in fuel prices on world markets. Currently, this situation is best regulated by the development of other non-oil sectors. In 2019, this situation was ensured at the best level by making optimal decisions. Unlike many CIS countries, the economy quickly established in line with the economic requirements of the pandemic. Restoring its territorial integrity in a short period of time, Azerbaijan has made decisions aimed at improving the supply of the population in the consumer market. This has led to a general level of prices being lower than world market prices due to the abundance in the consumer goods market. Despite widespread fluctuations in world market prices, this situation continued in 2020. As mention that food products prices in the Republic of Azerbaijan in 2020 did not increase significantly compared to last year. Thus, according to the State Statistics

Committee, the consumer price index in 2020 compared to 2019 was 102.8 percent. It was 105 percent for food, beverages and tobacco products, and 101.3 percent for non-food products. In December 2020, the consumer price index was 100.8% compared to the previous month, 102.6% compared to December of the previous year. In January-February 2021, 6 billion 27.9 million manat worth of food products, including 3 billion 205 million manat worth of food products and 2 billion 822.9 million manat worth of non-food products were sold to consumers in the retail trade network [11]. According to the State Statistics Committee, compared to the same period last year, retail trade turnover increased by 1.3 percent in real terms, including 4.9 percent for non-food products, and increased by 2 percent for food, beverages and tobacco products. The reason for the decline in non-food products is due to the long-term expectations of consumers due to such a change in consumer behavior due to the pandemic [10]. In addition, if we pay attention to the average monthly salary, the average monthly salary in Azerbaijan is significantly higher than the level of consumer spending. With such a salary, the provision for the consumer basket is paid in full. The remaining funds allow to be allocated and collected in the social sphere.

## CONCLUSIONS

The information provided in the article on consumer behavior actually shows that there are dozens of factors that affect consumer choices. These factors are related not only to the price and income factors, but also to the influence of non-economic factors. The article clearly states that consumer choices are influenced by many such economic, social and psychological factors. How these decisions are optimized is illustrated in the graphs. The article also contains important information about agricultural production in Azerbaijan. It contains extensive information about the self-sufficiency of the local market. Thus, paying attention to the information contained in the article, the factors influencing

the development of the agricultural consumer market can be listed as follows:

- to pay attention to the correct assessment of the volume of consumer demand;
- increase market self-sufficiency opportunities;
- improving the competitiveness of the products;
- reducing the role of intermediaries in the market;
- creation of products according to the budgets of different market participants;
- comparative analysis of international market prices;

In addition to the above, it is important for the state to partially intervene in the market in order to protect the economic interests of consumers. This can affect the level of self-sufficiency of the market.

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