

Study on the Consumption and Demand of Organic Food Products

Monica Chelaru (Gaidargi)
Tudor Andrei Holerga
Cătălin Gheorghe Zemeleagă
The Bucharest University of Economic Studies
chelarumonica22@stud.ase.ro
tudor.holerga@yahoo.com
zemeleagacatalin18@stud.ase.ro

Abstract

The behaviour of the consumer and his decisions regarding the purchase of products intended for consumption are increasingly influenced by his desire to consume food that does not alter his state of health, offering him a balance in his daily diet. The tendency to consume organic products is constantly growing, because the consumer's level of information regarding the existing products on the market is quite high. The main purpose of this study is to provide an image of the upward trend in consumption and demand for organically certified food products.

The consumption and demand for ecologically certified agro-food products have experienced an evolution in the direction of growth during the last years, a fact that is the basis of this study. This dynamic is found both at the level of our country, but also at the European and global level, which leads to a continuous development of the production and marketing of ecologically certified food products.

Key words: organic agriculture, consumption, demand, consumption of organic products, demand for organic products

J.E.L. classification: Q13

1. Introduction

Adopting a balanced lifestyle in terms of health is the starting point in defining the consumption habits of a new type of consumer. The similarity between the visual appearance and the name of the product, as well as the positioning on the shelf, gives the consumer an extremely short time to make the purchase decision. The price is no longer a defining criterion, its place being taken by itself as an internal structure, way of obtaining, keeping, the impact it brings on the health of the consumer and the environment.

During the last years, many studies have been carried out regarding the dominant characteristics of this type of consumer, the conclusions showing that they have a behaviour of maximizing economic efficiency, proving responsibility but also high levels of quality compared to consumers whose behaviour is manifested in the traditional way. Thus, the consumer's choice becomes criterion, first of all imposing sanitary rules, but not leaving aside the appearance, the source of obtaining the product, but also the direct impact on the personal or family budget correlated with the impact on the environment (Negrea, Popescu and Voinea, 2015).

The desires, expectations, needs of consumers know an accentuated dynamic due to a very large number of factors that determine them. Protecting the environment through an efficiency in the organization and development of food production, the changes in the climate sphere, the increase in the health level of the population, the reduction of food waste, the increased attention to the well-being of the animals involved in obtaining food products, the increase in the degree of urbanization thus represent factors that leave their mark more and more strongly on the purchase decision (Nunes, J., Ordanini and Giambastiani, G., 2021).

Published estimates of food demand for 2050 show an enormous range of values. This paper projects a 50-60% increase in total global food demand between 2019 and 2050. Our analysis indicates a substantial slowdown in rice demand, an increasing share of palm oil in global fats and oils markets and a continued shift to poultry as the dominant form of meat consumption. Unlike most existing dietary models, we integrate fish consumption into plant and animal protein analysis and highlight the dangers of using commonly cited food ratios to project feed grain demand. More broadly, we demonstrate the value of a regional commodity approach to understanding the complexities of the global food system (Walter P. Falcon, Rosamond L. Naylor, 2022).

2. Theoretical background

Food consumption represents that process through which a series of nutrients are supplied to the body in order to carry out physiological activities and which also provides the necessary enzymes, energy, hormones to fulfil the important functions of the human body (Țimiras, 2016).

The demand for agro-food products represents the amount of agricultural and food products that consumers are willing to purchase from the market at a certain time, being determined by a series of endogenous factors (age, sex, particularities related to the individual side of the person), of an exogenous nature (the environmental conditions in which the person works). Another series of factors that leave their mark on the demand for agro-food products are the subjective ones (represented by preferences, tastes and which have become extremely important in the purchase decision that the consumer has to make, compared to the objective factors). As a trend in the demand for current organic food products, we find the need to satisfy the hygienic-sanitary requirements that they must meet, but also consider their sensory and energetic-biological properties. Since agricultural production has a seasonal determination, this aspect also implies a corresponding adaptation of the demand, but the production of ecological agro-food products has the possibility to be realized through the food industry throughout the year, regardless of the season (Țimiras, 2016).

3. Research methodology

To carry out this study on the consumption and demand for organic agro-food products, we used series of statistical data provided by the International Federation of Organic Agriculture Movements FiBL IFOAM - Organics International The World of Organic Agriculture Statistics and Emerging Trends 2023, through which we performed an analysis of consumption and demand for ecologically certified agro-food products at global, European and national level. The methods used were both quantitative and qualitative.

4. Findings

4.1. Consumption and demand for organic agro-food products at global and European level

Global retail and per capita sales for the period 2019 – 2021, by region, are presented in table no. 1. It can be seen that worldwide the trend in terms of the demand for organic agro-food products has an annual increase at the level of each reference area, worldwide reaching an increase in 2021 with 17.31% compared to 2019.

The main countries with the largest traded volumes of organic agri-food products worldwide in 2021 were: USA with 48,618 million euros, Germany with 15,870 million euros, France with 12,659 million euros. Compared to previous years, namely 2020, in the USA the volume had reached 44,721 million euros, in Germany 11,970, and in France 11,295. This shows us a maintenance of the ranking for the volume of sales, the hierarchy not being modified in terms of the occupant of the place but only by increases of 8.71% for the USA, 32.58% for Germany, respectively 12.07% for France.

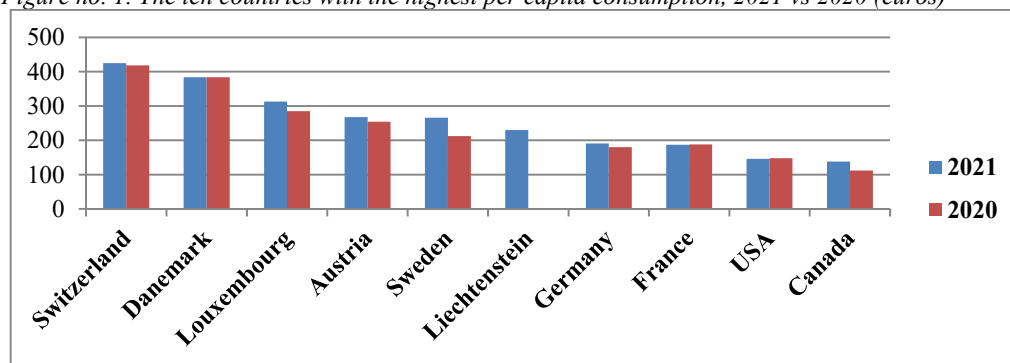
Table no. 1 Retail sales by region, 2019-2021

Region	Retail sales 2019 (million euros)	Retail sales 2020 (million euros)	Retail sales 2021 (million euros)
Africa	17	16	No date
Asia	10,949	12,540	13,747
Europe	45,049	52,000	54,539
Latin America	810	778	778
North America	48,201	53,717	53,901
Oceania	1,378	1,594	1,866
World	106,404	120,647	124,845

Source: <https://www.fibl.org/en/>

Regarding the distribution by country in the year according to the highest per capita consumption of ecologically certified agro-food products, it is presented as follows:

Figure no. 1. The ten countries with the highest per capita consumption, 2021 vs 2020 (euros)

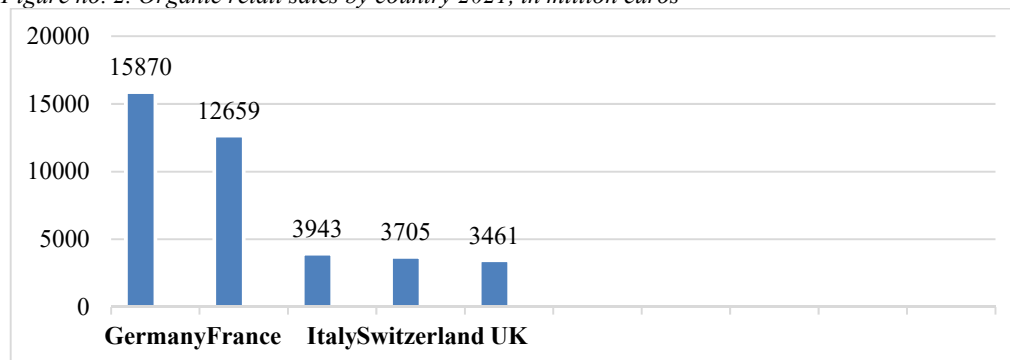


Source: <https://www.fibl.org/en/>

If in 2020 Norway was in the ranking of the top ten countries with the highest consumption per inhabitant, with 83 euros/inhabitant, it was outranked by Liechtenstein, which reached a rate of 230 euros/inhabitant, rising to sixth place in this hierarchy.

At the European level, in 2021 there was a substantially reduced increase compared to previous years in the volume of organically certified agro food products traded, with Germany maintaining the first position in a ranking of countries regarding retail sales of organically certified agro food products.

Figure no. 2. Organic retail sales by country 2021, in million euros



Source: <https://www.fibl.org/en/>

Switzerland maintained its per capita consumption at €425, once again at the highest level, followed at a relatively short distance by Denmark at €384, with six countries exceeding the €200/capita threshold. Even if sales growth in the period 2012-2021 recorded a level of 140.2% at

the European level and 148.8% at the level of the European Union, the percentage by which it increased in the period 2020-2021 is a relatively low one of 3, 8% at the European level, respectively 3.6% at the European Union level. The level of income directly influenced the level of consumption of ecologically certified agro-food products, which has a slow growth and reaches 65.7 euros on average at the European level and 104.3 euros at the level of the European Union.

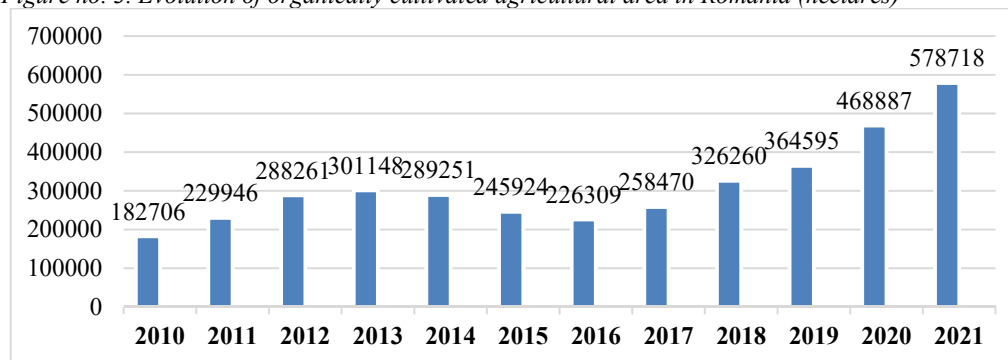
If at the level of Denmark, the value of the amounts allocated for the purchase of ecologically certified agro-food products reached the sum of 277 euros per person, approximately equal to that of Switzerland, i.e., 274 euros per person, below 200 euros we find Sweden with 194 euros per person allocated for the same type of consumption, while in our country in 2016 this value was 3.72 euros. The interest that Romanians give in regards to ecological agro-food products mainly depending on the aspects related to the product category, the most requested being vegetables and fruits, the price not representing a determining factor, but on the contrary, to purchase them they are willing to spend even 35% more.

During the last ten years, there has been a constant increase in the consumption of organic food products, but in a very low proportion if we refer to the average consumption at the European level. If the export is the main destination of the products obtained as a result of the practice of organic farming, the processors being in a rather small number, the consumption on the domestic market of organic products being mostly provided by imports in a percentage of 80%. In the period 2012-2018, the presence of ecologically certified agro-food products on the shelf experienced a 10 percent increase, reaching the level of 33% in hypermarkets, 3% more than in supermarkets, the volume of sales knowing an annual growth rate of up to 20 %, about 65 million dollars (Asociatia Quasar, 2020).

4.2. Consumption and demand for organic food products in Romania

At the level of the European Union, Romania, together with Bulgaria and two other states, is on the lowest step of the hierarchy regarding the area of land cultivated in the ecological agriculture system, reaching a percentage of 3.2% of the total area with an average of decrease of one third compared to the European average. In 2021, the areas of land that were cultivated in the organic farming system registered an increase compared to the previous year, with a percentage ratio of 5.2% at the level of the European Union. Romania was one of the countries that made the largest contribution, along with two other member states, namely France and Spain, to this increase with approximately 500 thousand hectares of land, while other neighbouring states, such as for example Bulgaria decreased in the areas of ecologically cultivated land by 25.8%.

Figure no. 3. Evolution of organically cultivated agricultural area in Romania (hectares)



Source: MADR, 2021

Along with the evolution of the pandemic, ecologically certified agro-food products were more and more in demand in consumption habits, especially in large store chains, reaching a 50% increase in sales in 2019 and 2021, above the sales level in the year's precedence, even reaching a triple quota for vegetables and fruits obtained through the practice of ecological agriculture, the assortment range increasing by up to 50% compared to the previous period. This trend was recorded for sausages, dairy products with increases in the quantities sold of 60% and 30% in 2021, respectively, compared

to recent years, a fact that was also confirmed by the large retailers Auchan, Kaufland, Carrefour. In order to meet the consumers, they sought to diversify the existing offer for ecologically certified agro-food products that they distribute because the demand for this category is constantly growing. Increases in the quantities of organic products were at the double-digit and triple-digit level, depending on the assortment of goods. Olive oil, biscuits, pasta, yogurt are among the best-selling products in the range of packaged items, while tomatoes, cucumbers, apples, bananas hold the first positions in organic fruit and vegetable sales. However, a very small increase is recorded in the sales of fresh cheese and butter. depending on the assortment of goods.

At the level of our country, we can see an increase in the production of vegetables grown through organic agriculture, compared to the production of fruits, where the production of red fruits is starting to gain momentum, a fact that once again demonstrates the increase in the consumption of organically certified agro-food products. If until now a relatively large difference can be found between the price of ecologically certified agro-food products and the price of products obtained from the practice of traditional agriculture, this difference will have a decreasing course in the years to come, thus facilitating the access of all consumers to this range of products. However, considering the context in which our country's economy finds itself, the accelerated increase in prices and the decrease in purchasing power, in order to support and develop this market segment, an accessible value for the purchase of ecological products must be reached (European Commission, 2023).

Every year, in our country, sales in the category of ecologically certified agro-food products amount to more than 300 million euros, representing very little of the value of total consumption, which reaches a value of 12 billion euros per year. Thus, producers operating in our country must have the opportunity to access this market (Ministry of Agriculture, 2023).

Through Eurostat, the data provided about our country at the European level recorded more than 11,000 ecologically certified agricultural producers providing a varied range of such products. This level brings our country to the top ten states in a hierarchy of the European Union. There is a suffocation of the Romanian market with imported products, thus creating an unfair competition in terms of the purchase price, the price of the products from the ecological agriculture of our country being high compared to those of similar imported products. This situation can be overcome by educating consumers, starting from the age of 3-4 years in kindergartens.

The Romanian producer is limited in terms of the quantity he can produce, thus making access to the markets of large retailers difficult. Opening your own outlets seems an increasingly suitable solution for small producers, or distribution in small shops.

At the level of the European Commission, it was decided that until the year 2030 the agricultural areas cultivated in the ecological agricultural system should be considerably developed, ensuring financial support for producers who want to develop on this side of agriculture. The aim is to shorten the distribution channel as much as possible precisely to reduce the level of the price paid by the final consumer.

Reveal Marketing Research carried out a study which determined that more and more residents of our country want to lead a healthy lifestyle, 30 percent of them purchasing and consuming organic products, while 86% are aware of the fact that their way of consumption has a direct impact on the environment in which they live. Among those interviewed, 32% consume on average two to three times a week ecologically certified food products, 60% take measures regarding the protection of the environment and over 40% want to live healthier. Their approach to organic products emphasizes the degree of nutrients, vitamin intake, certification, quality (European Commissions, 2022).

The volume of retail sales in 2021 reached a value of 40.7 million euros, which was equivalent to 2.1 euros/person. This indicator puts us on the same level as Portugal with 2.0 euros/person and more than half the value below Bulgaria, which registers 4.8 euros/person. Compared to Switzerland, which allocates 424.6 euros/person on average for the purchase of ecologically certified agro-food products, Romania is at the opposite pole.

5. Conclusions

This study carried out on the consumption and demand of ecologically certified agro-food products brings to attention the upward trend that characterizes the dynamics of the development of ecological agriculture. If more than 10 years ago the area cultivated with organic crops was quite

small, today it is expanding considerably, a fact that implicitly leads to an appropriate adaptation of the supply to the demand for organic agro-food products.

The implementation of a marketing mix according to this segment of agriculture, combined with a permanent education of the consumer regarding the benefits that the practice of ecological agriculture brings to the environment, the state of health, the animals combined with the allocation of a budget corresponding to the purchase of agro-food products ecologically certified leads to a significant increase in the consumption of these types of products, implying an increase in supply and therefore an economic development in this sphere of the economy. Once this way of living is assimilated, the consumption of organic products will not decrease at the same rate and with the same weight as other categories of agro-food products, even if there will be disruptions, crises, at the local level, globally, this product category is intended for a market segment with average and above-average incomes, with a certain culture and with a certain social status.

6. References

- European Commission, 2022. Agricultural Markets Briefs. *EU imports of organic agri-food products. Key developments in 2021*. <https://agriculture.ec.europa.eu/system/files/2022-09/agri-market-brief-19-organic-imports_en.pdf> [Accessed in 20.04.2023].
- European Commission, 2023. *Organic production and products*, <https://agriculture.ec.europa.eu/farming/organic-farming/organic-production-and-products_en> [Accessed in 20.04.2023].
- FiBL & IFOAM, 2019. *The world of organic agriculture statistics and emerging trends 2019*, <<https://www.fibl.org/en/>> [Accessed in 21.04.2023].
- FiBL & IFOAM, 2020. *The world of organic agriculture statistics and emerging trends 2020*, <<https://www.fibl.org/en/>> [Accessed in 21.04.2023].
- FiBL & IFOAM, 2021. *The world of organic agriculture statistics and emerging trends 2021*, <<https://www.fibl.org/en/>> [Accessed in 21.04.2023].
- Quasar Association, 2020. *An analysis of organic product sales in 2020*, <<https://asociatiaquasar.ro/o-analiza-a-vanzarilor-de-produse-ecologice-in-2020>> [Accessed in 20.04.2023].
- MADR, 2023, *Agricultura ecologică [Ecological Agriculture]*, <<https://www.madr.ro/agricultura-ecologica.htm>> [Accessed in 20.04.2023].
- MADR, 2023. *Agricultura ecologică [Ecological Agriculture]*, <<https://www.madr.ro/agricultura-ecologica/dinamica-operatorilor-si-a-suprafetelor-in-agricultura-ecologica.html>> [Accessed in 20.04.2023].
- Nunes, J., Ordanini, A., Giambastiani, G., 2021. The Concept of Authenticity: What it Means to Consumers. *Journal of Marketing* 85(9), pp. 121-135 <<https://doi.org/10.1177/0022242921997081>> [Accessed in 21.04.2023].
- Țimiraș, L. C., 2016. *Marketing agroalimentar [Food Marketing]*. Bacău: „Vasile Alecsandri” University
- Voinea, L., Popescu, D.V. & Negrea, M.T., 2015. Good practices in educating and informing the new generation of consumers on organic foodstuff. *Amfiteatru Economic*, 17(38), pp. 356-375
- Walter P. Falcon, Rosamond L. Naylor, 2022. *Population and development review 2022*. <<https://doi.org/10.1111/padr.12508>> [Accessed in 20.04.2023].