



DISTRIBUTION CHANNELS FOR ORGANIC FOOD IN THE REPUBLIC OF SERBIA

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UDC
641.033/1:33
8.439(497.11)

Review
paper

Received:
29.12.2022
Accepted:
20.06.2023

Abstract: Continuous organic production growth in the Republic of Serbia poses the issue of the existence of adequate distribution channels for these products, as they require specific storage and distribution requirements. In addition, the development of organic food production and demand for these products indicates that this market segment is not negligible. Hence, there is a need to analyze the degree of customer satisfaction with organic foods with existing distribution channels. Are there adequate channels for the distribution of organic food? How much trust do consumers have in distribution channels and whether the level of trust in distribution channels can affect consumers' buying decisions? These are just some questions that come up. In this regard, the subject of research will be the existing distribution network of organic products in the Republic of Serbia, as well as the degree of satisfaction and trust of consumers in distribution channels, in order to define guidelines and recommendations for the redesign of the organic food distribution network. In order to answer those questions, empirical research was conducted on the territory of the Republic of Serbia, and for the purposes of statistical analysis was used following statistical methods: ANOVA, MANOVA, cluster analysis, and descriptive statistics..

Keywords: distribution channels, organic food, market, customers

JEL classification: D30, L14, L66.

1. Introduction

Organic production is a way to produce quality, biological foods (high nutritional value) while respecting the environment. It uses appropriate technologies based on natural cycles that guarantee the maintenance of life on the earth and the natural balance. Organic production tends to not disturb natural flows and is fully in harmony with nature. Organic food refers to natural food products that are devoid of synthetic substances like antibiotics, pesticides, herbicides, fertilizers, and genetically modified organisms (Rana & Paul, 2017, 158).

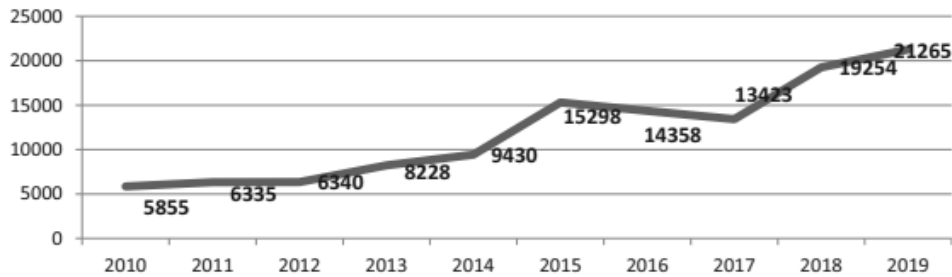
Production of organic food is very important from a different point of view. As a rapidly growing production, it is very important for each country and its GDP. Economic interest in developing organic food comes from its economic potential; price differences between conventional and organic food are great, and prices of organic food are fourth times higher, but also the production of organic food could be a factor in rural development. Organic production and organic food are very important from medicinal and ecological points of view. Organic food has been shown to have many health benefits with wide variability (Rock et al., 2017).

The growing need for organic food is the result of the emergence of food shortages, GMOs, the use of pesticides and antibiotics, and the industrialization of the agricultural system. Organic production is a result of combining best environmental practices, with the preservation of natural resources and animal welfare without the use of genetic engineering, pesticides, additives, or fertilizers. The cultivation of organic products is a distinctive approach that harmonizes environmental sustainability while also safeguarding customer safety, thereby fostering a favorable perception among consumers (Mendon et al., 2019, 98).

Organic production is one of the fastest-growing sectors in the Republic of Serbia. In the last five years, areas intended for the production of these products have increased by about 300%. In 2015, organic production encompassed approximately 0.44% of the total utilized agricultural land. For example, in 2013 this percentage for the EU was around 5.4% (Chamber of Commerce of Serbia, 2020). The largest percentage of land used for organic production in the Republic of Serbia is in Vojvodina. The whole organic production share of Vojvodina is 75.8% or 10163 ha is under organic production in Vojvodina.

Analyzing the period of the last 10 years, a trend of growth in total can be observed area under organic production. The total area increased by 263%, while the arable area increased in the same period increased by almost 472%, which is shown in Figure 1.

Figure 1. Total areas under organic production (2010-2019)

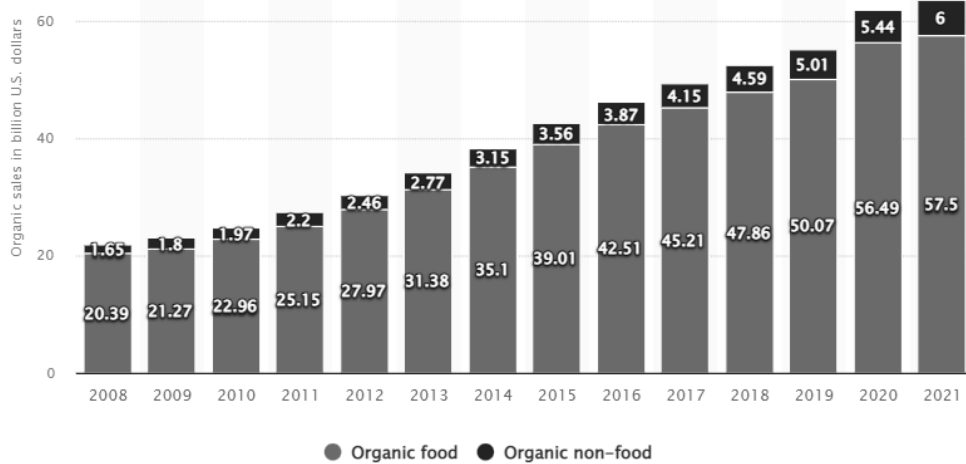


Source: Simić, 2020.

Most of the organic products produced in Serbia are exported. Data on the value of exports are constantly growing from year to year. According to the data, the value of exports in 2012 amounted to 3.74 million euros. In the following year, exports reached double-digit values. The latest data indicate that the value of the export of organic products amounted to 29.7 million euros.

The production of organic food is constantly growing. Such is the situation with the USA. In Figure 2, it is possible to see the constant growth of sales. It is important to note that the growth in the sale of organic food is far greater than that in the sale of non-organic food. For that reason, we can talk about the recognition of the importance of using organic food at the international level.

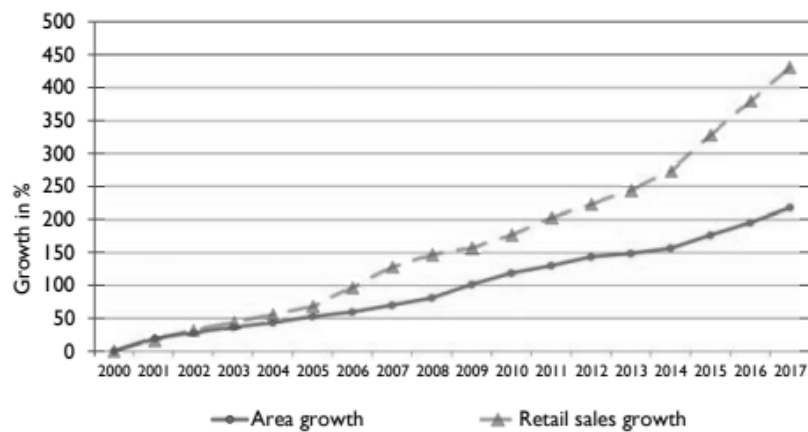
Figure 2. Organic food and non-food sales in the United States from 2008 to 2021



Source: Statista

Looking at EU countries, it is possible to draw a similar conclusion. In Figure 3, it is possible to observe a constant growth of arable areas used for planting organic products. In addition, there is a constant growth of retail sales, as one of the main channels of distribution of organic products.

Figure 3. Growth of organic area and retail sales 2000-2017 compared



Source: Willer et al., 2019.

During the early stages of organic production in Serbia, there was a lack of customs records pertaining to the import and export of organic products. However, in response to the Ministry of Agriculture's initiative, the Ministry of Finance revised the Ordinance on the format, content, and procedures for completing declarations and other customs forms, facilitating the monitoring of organic product exports. In Serbia, the dominant marketing channels consist of wholesale and traditional avenues, primarily including supermarkets and hypermarkets (Vehapi, 2016, 184).

Developing organic agriculture, or increasing organic production, is a factor in developing the market for organic food products. A key factor for the growth of the market for organic food products, besides informing the consumer, is the distribution of organic food products. In the distribution channel, retailers are considered the most important for further growth in this market (Vlahović et al., 2011). The academic literature highlights the rise in sales by conventional retailers as a factor contributing to the conventionalization of organic agriculture. However, there is a lack of specific empirical research dedicated to examining this phenomenon (Desquilbet et al., 2018).

The main problems of organic production and organic food are high production costs and logistic activities and transport of locally or regionally produced organic foods to the market. Also, one of the problems in developing an organic food

market is the availability of these products at the market. Limited organic production is one of the reasons why retail chains are not interested in those products (Brčić Stipčević et al., 2011, 114). Dispersion of supply sources and high price levels are significant problems in the distribution sphere as well (Smoluk-Sikorska, 2017, 300). The lack of distribution channels for organic food is the biggest problem for organic food producers. Besides this problem the main obstacles to designing optimal distribution channels for organic food are poor information management, inadequate communication with each partner channel, and divergent objectives between partners.

2. Importance of distribution channels

The distribution channel, as a group of dependent entities, from producers to consumers, has a special role to provide the utility of space and time (Szopa & Pękała, 2012). For that purpose, through the distribution channel exist the following flows (Szopa & Pękała, 2012, 143):

- “physical movement of completed products or services;
- actual transfer of ownership laws among participants of the channel;
- information about potential buyers, competition, and demand;
- promotion;
- payments of invoices;
- negotiations;
- realization of orders;
- risk-taking;
- shipping, transportation, and storage of goods”.

Collaboration and trust in distribution channels between all partners are very important. Sometimes food producers and farmers are been excluded from communication flows, and that is the main reason for the low level of trust between farmers and other partners in distribution channels. The existence of communication and common activities in distribution channels could be a way for increasing trust and collaboration (Wycherley, 2002).

Within the context of organic food, a notable connection was identified, indicating that perceived service quality and trust in the retailer are positively related (Shih-Tse Wang & Tsai, 2014). The inefficiency of information flow is a result of the belief distribution channel's partners that the trademark owner has obligation to ensure the efficiency of information to the consumer (Atănăsoaie, 2011).

2.1. The length of the organic food distribution channel

For the purpose of distribution of organic foods, it could be used two different categories of channels (Wier & Calverley, 2002; Bošnjak, 2007; Corsi et al., 2009; Park, 2009; Brčić Stipčević et al., 2011; Petljak, 2013): direct and indirect channels of distribution. A little more detail, authors Corsi and colleagues (2009) recognized three types of distribution channels for organic food: direct - with direct communication between farmers and consumers, short - organic foods being sold through organic stores, restaurants, or online stores, and traditional - implies sales through wholesale, retail or cooperatives. When it comes to the distribution strategies of organic food, two distinct types of sales channels exist. The first type encompasses direct sales and sales through specialized stores, while the second type relies on conventional marketing channels such as supermarkets and hypermarkets (Kazimierczak et al, 2014). According to authors Brčić Stipčević et al. (2011) distribution channels of organic agricultural products can be structured as: “(1) direct distribution channels, (2) indirect distribution channels, and (3) emerging distribution channels”. (Gajdic et al., 2018).

Direct channels of organic food are very short and imply direct contact with farm shops and farmers. “Direct marketing channels are characterized by farmers selling their goods directly to consumers without the involvement of a wholesaler or retailer and include roadside farm stands, farmer’s markets, and community-supported agriculture (CSA) operations” (Silva et al., 2015). Direct channels of distribution of organic food products include on-farm sales or farm-gate, open marketplaces, sales at fairs and fair sales, and sales through stores owned by organic producers and family farms (Brčić Stipčević et al., 2011, 114).

According to Bošnjak (2007, 94) “Direct channels are the most important for domestic producers of organic food as well as for consumers because through direct contact they develop trust, and also feedback is more efficient”. Through direct connection with the organic producers can be achieved better communication and interaction with consumers (Park, 2009). Direct channels for producers are often the simplest, but at the same time could be the most expensive way of distribution (Bošnjak, 2007, 94). The reason for this claim comes from it that the producer in addition to its primary activity, must take responsibility for other activities such as storage, order-picking, packing, transport, marketing, and sales even though it is not specialized for them (Petljak, 2013), and in this case, chances for profit will be lower (Park, 2009). In terms of distributing organic food products, the majority of producers opt to sell their organic food directly to end consumers, primarily through family farms and local fairs (Gajdic et al., 2018).

In the indirect channels of distribution of organic food products to producers and consumers, wholesale, buyers, and /or retailers are also involved. Wholesalers buy organic food from several manufacturers and offer them to retailers and

caterers. Retailing of organic food includes sales in various retail formats: supermarkets and hypermarkets, organic convenience stores, organic discounters, and specialized retailers, such as retail stores with the dominant organic products (for example natural food shops, organic wine stores, organic tea shop, organic spice and herb stores, organic butcher and organic baker).

Distribution of organic food through indirect channels requires assured supplies, homogeneous quality, and large volumes (Wier & Calverley, 2002, 56). Producers of organic food which producing in small quantities could have a problem with indirect distribution channels due to insufficient production volume as well as because of potential bottlenecks at different phases of the production process (Wier & Calverley, 2002, 56). This is the reason why supermarkets and hypermarkets decide very often to import organic food. In this way, they are provided with sufficient quantities of organic food (Petljak, 2013).

Authors Corsi and colleagues (2009) were analyzing different factor and their influence on designing optimal distribution channels for organic foods. Choosing appropriate distribution channels depends on farm size and production volume. Smaller farmers have a higher preference for direct or short channels. Also, the location of the farm could be a factor in choosing distribution channels. Producers from mountains and hills usually choose direct or short distribution channels. The reason for this decision is higher production costs and a great number of distributors would significantly increase the sales prices. Farmers can sell its product in smaller quantities throughout the year are more interesting for direct or short distribution channels (Corsi et al., 2009). According to an analysis, consumer perception and attitudes towards the market offer of organic food products are predominantly influenced by factors such as attitudes towards organic food products, the price-to-quality ratio, distribution obstacles, and the utilization of modern media as a promotional tool (Melovic et al., 2020).

The length of a product line could be a factor in profitability and also a factor in defining a different distribution channel (Netessine & Taylor, 2007). Producers of organic food with a longer product line can have a better market position by achieving higher total demand and market shares, targeting different customer segments, and obtaining more retail space. Farmers with longer product lines have the opportunity to use direct channels because they can meet the needs of consumers for different products, but they can also use indirect channels because of their power in relation to distributors that derive from a long production line (Liu & Cui, 2010).

Author Park (2009) through its research identified farmers that prefer direct distribution channels. The categories of farms include family farms, which are characterized by a single owner, farms with a history of transitioning from conventional agriculture to organic practices. Additionally, there are farms managed by less experienced farmers and farms with a significant land area in hectares. Also,

organic producers who prefer more indirect distribution channels are farmers with more experience and have a greater number of employees (Park, 2009).

According to Smithers et al. (2008) direct channels are more appropriate for consumers which look for interaction with producers of organic food. The most frequent questions are about production methods, the origin of foods, and food variety, and also looking for cooking tips. Indirect (conventional) distribution channels without interaction with producers of organic food are great choices for consumers that look for a one-stop grocery shopping experience.

The emerging distribution channels relate to the Ho.Re.Ca (hotels-restaurants-café) channel, which includes the supply of hotels (bio hotels), restaurants (bio restaurants), cafes (bio cafes), and public institutions (canteens, schools, hospitals, the military) to organic food, as and the placement of organic food products through a tourist offer, that is, through eco-agro tourism (Brčić Stipčević et al., 2011, 114). In the future, for the purpose of increasing the production and distribution of organic food, it is necessary to implement organic menus at restaurants and hotels. This is the way that restaurants and hotels increase the variety of their meals. The limitation of this step comes from the seasonal availability of the products and the small variety (Szente & Szakly, 2003, 310).

2.2. Certification and labeling systems

Certification and labeling systems are factors in increasing the distribution of organic food and creating trust with consumers. That is some kind of confirmation that producers or farmers will work according to defined standards. For example, Canadian organic producers/farmers have been defined Organic Products Regulation in 2009, requiring that each organic producer need to get a certificate for all agricultural products which are represented as organic. That is how producers could have used the federal organic agricultural product logo.

A great number of countries has own standards for the production of organic food. To distinguish their organic products in the market and establish a strong market presence, producers and retailers must employ effective strategies such as implementing clear standards and utilizing recognizable labeling. These strategies are crucial for gaining and maintaining market shares (Bruschi et al., 2015, 417). Standards, certifications, and labeling could be proof of the quality and safety of organic food, but also sources of trust from the perspectives of consumers (Hamzaoui and Zahaf, 2008). Labeling could exist at the national level or regional level, and consumers could use labels for identifying organic products, as branding helps for identifying products from specific companies (Rodrigues, et al., 2016).

Basic standards were established by the International Federation of Organic Agriculture Movements (IFOAM) in 1980. According to IFOAM, alternative

certification methods can be regarded as valuable tools that enable producers to enter the (local) market for organic products (Sacchi et al., 2015, 7400). Principles created by IFOAM were used by countries for creating their own standards.

Numerous countries are trying to achieve stable conditions for the distribution of organic food using their own standards and principles. The Republic of Serbia is one of them. It is certain that consumers would have much more confidence in labels and organic products from other countries if they existed consolidation of standards and regulations between countries.

With the entry into force of organic production regulations in the EU, the Law on Organic Production was adopted in Serbia and its implementation started on January 1, 2011. Under the provisions of the Law on Organic Production, certified organic products are distinguished by the "Organic Product" label, accompanied by the code of the authorized organization and the national symbol. This labeling requirement ensures that products containing a minimum of 95% agricultural ingredients produced through organic methods can be appropriately labeled.

The Ordinance on Control and Certification in Organic Production and Organic Production Methods regulates various aspects related to organic production methods, technological processes in processing, implementation of control and certification transport, storage, management of records by water control organizations, and the usage of the national symbol on organic products.

Organic products often look representative (size, color), but this depends on many other conditions (sort, natural and climatic conditions, etc.). The smell and taste are often more intense due to the increased content of some substances, as well as the use of local, indigenous varieties that have such characteristics, which are desirable in organic production. Therefore, the consumer must pay attention to the following: If the product is produced in accordance with organic production standards and in accordance with the legislation, the manufacturer must place a national mark with a clear and visible inscription in a visible place, and according to the Law on organic production of the Republic of Serbia.

By displaying the national symbol, consumers can be assured that the product has undergone rigorous process control and certification procedures in compliance with stringent regulations. These processes are overseen by a certification body regulated by the Ministry of Agriculture, Trade, Forestry, and Water Management. There are also agricultural products that are still in the so-called transition period (the conversion period usually lasts from 2 to 3 years) but are already produced by methods of organic agricultural production. They cannot yet be marked as organic and marked with a national symbol. If the product does not have this label but only the prefix "Bio", "Eco" or "Organic", this means it is not an organic product.

2.3. Motivations to buy organic

Reasons for increasing lands under organic production could be found on the supply side as well as the demand side. Changes in the nutrition habits of consumers focus on healthy food with high-quality food and a healthy lifestyle, without GMO food are factors that come from the demand side, and have a great influence on the increasing rate of organic production (Szente & Szakly, 2003, 310). Consumers become more interested in organic food because of several reasons. Some of the motives are the ecological conscience of consumers and the welfare of the environment and animals, and also the support of local farmers (Hamzaoui & Zahaf, 2008). But a lot of studies showed that still are dominant egocentric motives like health, attitude towards taste, and freshness (Fotopoulos & Kryskallis, 2002). Some primary obstacles to purchasing organic food include the higher cost, restricted availability, subpar quality, lack of trust, and perceived lack of value (Hamzaoui-Essoussi & Zahaf, 2012).

According to some research, it has been determined that consumers of organic food are consumers until they are thirty without children. The largest number of consumers is richer and younger people (Padel & Foster, 2005). But also, households with lower income could be consumers of organic food when they are convinced of better quality organic food. In one research, Ditlevsen et al (2019, 48) defined the main motives for buy organic food as follows:

- health concerns;
- environmental concerns;
- animal welfare;
- taste.

Authors Grzybowska-Brzezińska et al. were researching the main motives for buying organic food. They made surveys and in 2005, 2010, and 2013 were questioning people about their motives. They concluded that the main motives are (Grzybowska-Brzezińska et al., 2017, 170):

- “the belief that organic food is of higher quality when compared to conventional food;
- concern for own and family’s health;
- concern for the natural environment;
- taste quality;
- recommended by friends;
- concern for the well-being of animals;
- fashion”.

3. Methodology of research

According to research from 2011 highest percentage of organic foods is purchased at marketplaces (40%), followed by supermarkets (28%) and hypermarkets (21%). In specialized stores relatively, few buy only 8% of the sample. This suggests that organic food is progressively making its way into conventional retail establishments, providing consumers with the option to purchase organic products alongside their regular grocery items. However, the positioning of organic products at supermarkets or other traditional retail stores has a weakness, because organic food is not separated and appropriately differentiated from conventional products. The survey results indicate that 61% of respondents believe that intensifying promotional activities is necessary to boost the demand for organic products, whereas 10% hold a contrary opinion. Regarding the most effective method of informing potential consumers about organic products, a majority of respondents (52%) preferred television as their primary choice. Promotion at the point of sale was deemed highly important by 29% of respondents, while 17% favored the use of various catalogs and brochures. The answers to this question should indicate the best and most effective medium for promotional activities (Vlahović et al., 2011). Based on the conducted research, the authors aim to propose the most acceptable distribution channels for the purchase of organic products based on the determination of certain categories of consumers. In this regard, an empirical survey was conducted from June to August 2022, which included consumers from the Republic of Serbia. The survey questionnaire contains a group of general questions (gender, age, work status, level of education), as well as questions related to the motives for purchasing these products, the channels through which they are supplied, the channels through which they are informed, and the like. The number of respondents in the sample is 308. Based on the cluster analysis conducted in SPSS, all respondents are divided into two clusters. The first cluster included 244 respondents and the second 64. Our target group is consumers in the second cluster since they buy a higher percentage of organic food. The cluster analysis is shown in Table 1.

Table 1. Number of Cases in each Cluster

Cluster	1	244.000
	2	64.000
Valid		308.000
Missing		0.000

Source: Authors' calculation in SPSS

Further analysis revealed that there is a statistically significant relationship between the purchase of organic food and work status and income level because the coefficient is less than 0.005 which is shown in Table 2 and Table 3.

Table 2. Chi-Square test: purchase of organic food and work status

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	36.477 ^a	2	0.000
Likelihood Ratio	50.518	2	0.000
Linear-by-Linear Association	33.396	1	0.000
N of Valid Cases	308		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 9.97.

Source: Authors' calculation in SPSS

Table 3. Chi-Square test: purchase of organic food and income level

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	73.691 ^a	3	0.000
Likelihood Ratio	73.111	3	0.000
Linear-by-Linear Association	68.505	1	0.000
N of Valid Cases	308		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.23.

Source: Authors' calculation in SPSS

Based on the cluster analysis, we can say that members of other clusters represent our target market. The purchase of organic products depends on the level of income and work status. Most of the buyers of organic products are employed people with higher incomes. For the purpose of their research, the authors defined the following hypotheses:

- H1: Propensity to purchase branch products is conditioned by economic factors (work status, household income)
- H2: Families with children are more frequent buyers of organic products
- H3: Purchase motives influence the place of supply of organic food

In order to test the hypotheses, the authors use ANOVA, MANOVA, cluster analysis, and descriptive statistics.

4. Discussion of research results

For research purposes, the authors created a survey. The respondents answered basic questions about their material and social status. A special group of questions related to the motives for buying organic products, as well as the ability of the respondents to recognize organic products. In their answers, the respondents indicated the main places where they buy organic products, as well as the share of organic products in their total food consumption. Also, the important question is what organic products respondents usually buy. Respondents also answered the question about the main communication channel through which they get information about organic products.

Based on the answers, it is possible to draw the following conclusions regarding consumers from the mentioned territories of the Republic of Serbia. The channel through which consumers most often buy organic products is buying directly from producers. This channel has a share of 19.44% in the total structure of all observed channels. It is followed by specialized stores and markets with a share of 16.85%. Then followed by hypermarkets with a share of 14.09%, supermarkets with 13.60%, and drug stores with 10.15%. Online shopping is in last place with 9.07%.

When it comes to the main promotional channels through which consumers are informed in the Republic of Serbia, the following can be concluded. The most desirable channel, with a share of up to 21.50%, refers to information received from relatives, acquaintances, or friends. After that, the main source of information is the data that is on the packaging itself and participates in the overall structure by 18.25%. This is followed by information obtained from the sellers themselves, at points of sale, or via electronic communication, with 17.29%. Immediately after sellers, there is information obtained through social networks, with a share of 15.65%. Direct marketing systems are in first place with a share of 14.25%. The least used motivational channels are TV and radio with a share of up to 13.08%.

Based on the results of the survey, it is possible to conclude that traditional sources play an important role in supplying consumers with organic products because the largest number of consumers prefers direct purchases from consumers. It is important to emphasize that the participation of specialized stores, which are located in second place according to consumer preferences, should not be neglected. After that, other traditional channels follow. In this sense, the first hypothesis can be considered confirmed, because it has been shown that traditional formats have a large share. When it comes to the second hypothesis, it can also be dismissed as confirmed because the research showed above all the presence of different promotional channels. When you look at their participation, it can be said that there is no drastic difference between them, and it can be said that they are all represented to a certain extent. This shows the diversification of legitimate promotional channels.

It is important to emphasize that, according to the results of the survey, consumers generally choose organic products based on price and labels that are highly recognizable. When it comes to the main purchase motives, health, taste of food, environmental protection, the freshness of food, and support for local farmers were integral parts of the survey. According to the collected data, it can be concluded that health is the main motive for buying organic products. After that comes the freshness and taste of the food. The least motivation of consumers is reflected in the protection of the environment and support to local farmers. The main reasons why consumers do not decide to buy organic products are related to the high price, unsatisfactory quality, limited availability, distrust in producers, and the distribution network. Another segment of the survey refers to the types of products that are most often purchased through certain distribution channels, and the conclusions are as follows. Milk and milk products are most often bought in hypermarkets and supermarkets. Cereals and juices and teas are most often bought in specialized stores. When it comes to drugstore pharmacies, the dominant searchers buy juices and teas. In the case of purchases, drinks reduce fruits and vegetables. Milk and dairy products, but also meat, fruits, and vegetables are bought directly from the producers. Juices and teas and cereals are mostly bought through online distribution channels.

When it comes to the first hypothesis, the influence of work status and income level on the percentage of organic food purchases was examined. Based on the ANOVA and Chi-square test, it was determined that there is a statistically significant influence, because the coefficient is less than 0.005, and the coefficients that confirm this are shown in Table 4 and Table 5.

Table 4. Influence of work status on the percentage of organic food purchases

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	80.224 ^a	9	0.000
Likelihood Ratio	78.827	9	0.000
Linear-by-Linear Association	53.106	1	0.000
N of Valid Cases	308		

a. 3 cells (18.8%) have expected count less than 5. The minimum expected count is 1.17.

Source: Authors' calculation in SPSS

When it comes to the second hypothesis based on the ANOVA and Chi-square test, the statistical significance was not established, since the value of the coefficient exceeds the reference value of 0.005, which is shown in Table 6.

Table 5. Influence of income level on the percentage of organic food purchases

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	37.712 ^a	6	0.000
Likelihood Ratio	52.400	6	0.000
Linear-by-Linear Association	27.401	1	0.000
N of Valid Cases	308		

a. 2 cells (16.7%) have expected count less than 5. The minimum expected count is 1.87.

Source: Authors' calculation in SPSS

Table 6. Influence of number of children on the percentage of organic food purchases

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	5.494 ^a	3	0.139
Likelihood Ratio	5.301	3	0.151
Linear-by-Linear Association	4.205	1	0.040
N of Valid Cases	308		

a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 3.39.

Source: Authors' calculation in SPSS

When it comes to the third hypothesis, SPSS MANOVA analysis was used to examine whether there is a statistically significant influence of motive on the places of supply of organic food. The analysis showed that the motives that influence the choice of the place of purchase are health and the taste of food since the observed coefficients are less than 0.005. Other motives that were observed (food freshness, environmental protection, and support to local farmers) did not show statistical significance. The analysis of the members of the second cluster revealed that customers most often buy their organic food directly from producers and at markets. This is followed by specialized stores, pharmacies and drugstores, hypermarkets, supermarkets, and online shopping.

5. Conclusion

Organic food production at the global level is on the rise. Organic food is increasingly the choice of consumers. The multitude of motives that influence consumer preferences for buying organic food point to the importance of organic

food in the diet of each individual. The main motives are related to the fact that consumers think that organic food is healthier, they are related to the care of animals, better taste, better quality, care for nature...

When it comes to the Republic of Serbia, the situation is similar to that at the global level. Organic food production is one of the fastest-growing segments. Research has shown that both direct and indirect marketing channels through which organic products are distributed are available to the public in Serbia. Direct channels have the largest share, but traditional forms of distribution also have a significant share. When information systems are in question, the dominant place is occupied by recommendations of friends, acquaintances, and relatives, that is, information directly from someone is the main source of information. This fact shows a positive correlation between the distribution channel itself and the information processing model. The main motive of consumers is certainly health, while the main reason for the insufficient purchase of organic products is certainly the high price. Different products are distributed through multiple channels, so it can be said that the distribution network is diversified.

The contribution of this paper is aimed at determining the profile of buyers of organic food in the territory of the Republic of Serbia. Based on the analysis, it can be concluded that the majority of buyers of organic food are employees with higher incomes. The main motives, which also influence the choice of the place of supply, are the health and taste of the food. They get their organic food directly from producers or at markets. Since there are two basic channels through which organic food is procured, it is recommended to develop those channels and use them to a greater extent for the placement of organic food. At the same time, it can also be a recommendation for further research, by looking at other channels and their potential for the placement of organic products. The limitation of this research is reflected in the size of the study, so this research should be understood as a pilot project that only represents an introduction to numerous researches.

References

- Atănăsoaie, G. (2011). Distribution channels on the organic foods market. *Journal of Horticulture, Forestry and Biotechnology*, 15 (3), 19-25.
- Bošnjak, K. (2007). *Čimbenici uspjehnosti plasmana ekološke hrane na hrvatskom tržištu*. Zagreb: Faculty of Economics and Business.
- Brčić Stipčević, V., Petljak, K. & Guszak, I. (2011). Distribution channels and characteristic of organic food market. *Business Logistics in Modern Management*, 11, 111-125.
- Brucshi, V., Shershneva, K., Dolgopolova, I., Canavari, M. & Teuber, R. (2015). Consumer Perception of Organic Food in Emerging Markets: Evidence from Saint Petersburg, Russia. *Agribusiness*, 31 (3), 414-432.
- Chamber of Commerce of Serbia. *Organic production in Serbia*. Retrived from: <http://xn--j1ajh.xn--90a3ac/Sadrzaj/Files/OPC%20Brosura%20ENG.pdf>

- Corsi, A., Borsotto, P., Borri, I. & Strøm, S. (2009). *Diversification of the marketing chains among organic producers*. Beijing, China: International Association of Agricultural Economists Conference.
- Desquilbet, M., Maigne, E. & Monier-Dilhan, S. (2018). *Organic food retailing and the conventionalisation debate*, Organic food retailing and the conventionalization debate, 14-778. Toulouse: Toulouse school of Economics.
- Ditlevsen, K., Sandoe, P. & Lassen, J. (2019). Healthy food is nutritious, but organic food is healthy because it is pure: The negotiation of healthy food choices by Danish consumers of organic food. *Food Quality and Preference*, 7, 46-53.
- Fotopoulos, C. & Krystallis, A. (2002). Purchasing motives and profile of the Greek organic consumer: a countrywide survey. *British Food Journal*, 104 (9), 730-764.
- Gajdić, D., Petljak, K. & Mesić, Ž. (2018). An exploration of distribution channels: challenges and opportunities for organic food producers in Croatia. *Economics of Agriculture*, 65 (4), 1461-1482.
- Grzybowska-Brzezińska, M., Grzywińska-Rapca, M., Żuchowski, I. & Bórawski, P. (2017). Organic Food Attributes Determining Consumer Choices. *European Research Studies Journal*, XX (2A), 164-176.
- Hamzaoui, L. & Zahaf, M. (2008). Profiling Organic Food Consumers: Motivations, Trust Orientations and Purchasing Behaviour. *Journal of International Business and Economics*, 8 (2), 25-39.
- Hamzaoui-Essoussi, L. & Zahaf, M. (2012). The Organic Food Market: Opportunities and Challenges. In Reed, M. (Ed.) *Organic Food and Agriculture – New Trends and Developments in the Social Sciences*, pp. 63-88.
- Kazmierczak, R., Salach, K. & Rembiałkowska, E., (2014). Distribution channels of organic agricultural products in Poland. *Journal of Research and Applications in Agricultural Engineering*, 59(3), 103-107.
- Liu, Y. & Cui, H. T. (2010). The Length of Product Line in Distribution Channels. *Marketing Science*, 29 (3), 474-482.
- Melović, B., Čirović, D., Dudić, B., Bačković Vulić, T. & Gregus, M. (2020). The Analysis of Marketing Factors Influencing Consumers' Preferences and Acceptance of Organic Food Products—Recommendations for the Optimization of the Offer in a Developing Market. *Foods*, 9, 1-25.
- Mendon, S., Salins, M. & Aithal, P. S. (2020). Emerging Trends in Sustainability of Organic Farming and its Impact on Purchase Intention - a Review & Research Agenda. *SCHOLEDGE International Journal of Management & Development*, 6 (7), 98-120.
- Netessine, S. & Taylor, A. T. (2007). Product line design and production technology. *Marketing Science*, 26 (1), 101-117.
- Padel, S. & Foster, C. (2005). Exploring the gap between attitudes and behaviour: Understanding why consumers buy or do not buy organic food. *British Food Journal*, 107 (8), 606-625
- Park, A. T. (2009). Assessing the Returns from Organic Marketing Channels. *Journal of Agricultural and Resource Economics*, 34 (3), 483-497.
- Petljak, K. (2013). Distribution channels of organic food in the Republic of Croatia. *Poslovna izvrsnost*, 7 (1), 73-97.
- Rana, J. & Paul, J. (2017). Consumer behavior and purchase intention for organic food: A review and research agenda. *Journal of Retailing and Consumer Services*, 38, 157-165.

- Rock, B., Suriyan, J., Vijay, B., Thalna, N., Elango, S. & Rajajeyakumar, M. (2017). Organic Food and Health: A Systematic Review. *Journal of Community Medicine & Health Education*, 7 (3), 1-7.
- Rodrigues, D. B., Delmarco, D. A. S., Aoqui, C. & Marinho, B. L. (2016). The Meaning of The Organic Certification Label for the Consumer: A Cluster Analysis. *REGE - Revista de Gestão*, 23 (4), 316-325.
- Sacchi, G., Caputo, V. & Nayga, R. (2015). Alternative Labeling Programs and Purchasing Behavior toward Organic Foods: The Case of the Participatory Guarantee Systems in Brazil. *Sustainability*, 7, 1397-7416.
- Shih-Tse Wang, E. & Tsai, B.-K. (2014). Consumer response to retail performance of organic food retailers. *British Food Journal*, 116 (2), 212-227.
- Simić, I. (2020). Organska proizvodnja u Srbiji 2020. Beograd: Nacionalno udruženje za razvoj organske proizvodnje Serbia Organika.
- Smithers, J., Lamarche, J. & Alun, J. (2008). Unpacking the terms of engagement with local food at the Farmers' Market: Insights from Ontario. *Journal of Rural Studies*, 24 (3), 337-350.
- Smoluk-Sikorska, S. (2017). Distribution of Organic Food in Poland. *Scientific Journal Warsaw University of Life Sciences – SGGW Problems of World Agriculture*, 17 (4), 292-301.
- Statista, Organic food and non-food sales in the United States from 2008 to 2021, Retrieved from: <https://www.statista.com/statistics/244394/organic-sales-in-the-united-states/>
- Szente, V. & Szakly, Z. (2003). Analysis of the Different Sales Channels on Organic Food Market. *Agriculturae Conspectus Scientificus*, 68 (4), 307-310.
- Szopa P. & Pećala W. (2012). Distribution channels and their roles in the enterprise. *Polish Journal of Management Studies*, 6, 143-150.
- Vehapi, S. (2016). Marketing miks proizvođača organske hrane sa posebnim osvrtom na proizvođače iz Srbije. *Časopis za ekonomiju i tržišne komunikacije*, V1 (I), 177-189.
- Vlahović, B., Radivojević, V. & Živanić, I. (2011). Istraživanje stavova potrošača o potrošnji organske hrane. *Ekonomika poljoprivrede*, 3, 443-456.
- Wier, M. & Calverley, C. (2002). Market potential for organic foods in Europe. *British Food Journal*, 104 (1), 45-62.
- Willer, H, Moeskops, B., Busacca, E. & Vega, N. (2019). *The World of Organic Agriculture: Statistics and Emerging Trends 2019*. Bonn: IFOAM & Frick: FiBL.
- Wycherley, I. (2002). Managing relationships in the UK organic food sector. *Journal of Marketing Management*, 18 (7-8), 673-92.

KANALI DISTRIBUCIJE ORGANSKE HRANE U REPUBLICI SRBIJI

Apstrakt: Kontinuirani rast organske proizvodnje u Republici Srbiji nameće pitanje postojanja adekvatnih kanala distribucije ovih proizvoda, budući da oni zahtevaju specifične uslove čuvanja i distribucije. Osim toga, razvoj proizvodnje organske hrane i tražnja za ovim proizvodima ukazuju da ovaj tržišni segment nije zanemarljiv. Upravo to ukazuje na potrebu za analizom stepena zadovoljstva korisnika organske hrane postojećim kanalima distribucije. Da li postoje adekvatni kanali za distribuciju organske hrane? Koliko poverenje potrošači imaju u postojeće kanale i da li stepen poverenja u kanale distribucije može uticati na odluku potrošača? Ovo su samo neka pitanja koja se nameću. S

tim u vezi, u radu je predmet istraživanja postojeća distributivna mreža organskih proizvoda u Republici Srbiji, kao i stepen zadovoljstva i poverenja potrošača u istu, a u cilju definisanja smernica i preporuka za redizajniranje distributivne mreže organske hrane. Radi odgovora na istraživačka pitanja sprovedeno je empirijsko istraživanje na području Republike Srbije, a za potrebe analize rezultata korišćeni su sledeći statistički metodi: ANOVA, MANOVA, klaster analiza i deskriptivna statistika.

Ključne reči: kanali distribucije, organska hrana, tržište, potrošači.

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