

## Article

# Exploring the Preferences of Consumers' Organic Products in Aspects of Sustainable Consumption: The Case of the Polish Consumer

Julia Wojciechowska-Solis <sup>1,\*</sup>  and Anetta Barska <sup>2</sup> 

<sup>1</sup> Faculty of Agrobioengineering, University of Life Sciences in Lublin, Akademicka 13, 20-950 Lublin, Poland

<sup>2</sup> Faculty of Economics and Management, University of Zielona Góra, Podgórna 50, 65-246 Zielona Góra, Poland; a.barska@wez.uz.zgora.pl

\* Correspondence: julia.wojciechowska@up.lublin.pl; Tel.: +48-81-445-60-10

**Abstract:** The dynamically developing trend of sustainable consumption is manifested, among others, by the growing interest in organic products on the part of consumers. The aim of this article was to identify the behavior of Polish consumers in the market of organic products and to establish a link between their environmental awareness and willingness to buy organic products. The authors hypothesized that there is a relationship between consumer awareness of the concept of sustainable consumption and the consumption of organic products. Consumer awareness means making conscious choices based on the knowledge expressed in the attitudes and, sometimes, preferences of the food brand. The research was conducted using a proprietary survey questionnaire. A total of 1067 respondents participated. A statistical analysis was performed by using Statistica 13.1 PL software, which includes descriptive statistics, the discriminant function analysis, and regression analysis. Motives were identified that are of crucial importance to the consumer deciding to purchase organic products. These include: beneficial health effects, contents of nutrients, no additional substances used in food production, taste, and others. A statistical relationship was established between environmental awareness and the tendency to buy organic products. Among the organic products, eggs, fresh fruit and vegetables, honey, cow's milk and its derivatives, as well as cereal products, are the most preferred by consumers of both genders. The proposed model, which outlines the relationship between environmental awareness and the tendency to buy organic products, includes the following variables: care for the environment and animal welfare, no harmful substances used in food production, low level of processing, short shelf life.

**Keywords:** sustainable consumption; organic products; consumer behavior; the food market; preferences



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## 1. Introduction

Sustainable consumption and production have been defined as the basic requirements of sustainable development [1,2]. Consumer-oriented sustainable food consumption is a holistic concept that refers to the integrated implementation of sustainable food consumption and production patterns while respecting natural ecosystems' carrying capacity [3]. Through their choices, consumers shape the demand for food from a specific place of origin, produced in a particular production process, or from producers that take into account voluntary sustainability standards, with geographical indications, local brands, and organic farming certification [4,5]. Sustainable consumption can include both balanced attitudes and balanced behavior [6,7]. There is now an "attitude-behavior gap" or a "value and action gap", as over 30% of consumers report that they are concerned about environmental issues but have difficulty translating this into their purchasing behaviors [8]. Ensuring public participation in recycling, energy saving measures, water, and green consumption is a way to move towards sustainable consumption [9]. The multifunctional mission of

“sustainable food consumption” has increased the importance of labels [10,11]. Sustainability certification of organic products or voluntary labeling has emerged and focused on innovative sectors (i.e., Organic, Fair Trade, and Local) or across sectors (e.g., Ecolabel). Even the European Union quality logo (protected designation of origin—PDO, protected geographical indication—PGI and traditional speciality guaranteed—TSG) is based on sustainable development principles [12].

The research by Witte et al. [13] and Berger and Corbin [14] showed the relationship between environmental attitudes and consumer behaviors. Their research proved that environmental attitude has a positive impact on purchasing intention. In the last few decades, the socioeconomic makeover brought about quantitative and qualitative changes in Polish consumers’ habits and shopping preferences [15,16]. The same was observed much earlier with relation to Western European societies by Dziewanowska and Kacprzak [17], who pointed out the shift from material values, once considered the most important in life, towards post-material values such as self-realization, the need for social recognition, or care for the natural environment. A significant group of Polish consumers is distinguished by high consumer awareness, not only in relation to their rights but, also, the environmental aspects of business entities’ operations. The conscious consumer acquires knowledge on food from various available sources and compares it with the information on food labels. This consumer is characterized by their desire to engage personally in solving social problems, to which end it is necessary to know what an individual can do to reduce the negative impact of excessive consumption on the environment and society. Environmental attitude has a positive impact on purchasing intention [18]. The aim of the study was to identify the behavior of Polish consumers on the market of organic products and to establish a link between their environmental awareness and willingness to buy organic products. The authors put forward a hypothesis that there is a relationship between the consumer awareness of the concept of sustainable consumption and the consumption of organic products. Secondary data originating from the literature and available statistical data were used in the research proceedings. To supplement the presented analyses, empirical material was also collected using a survey questionnaire.

## 2. Theoretical Contributions

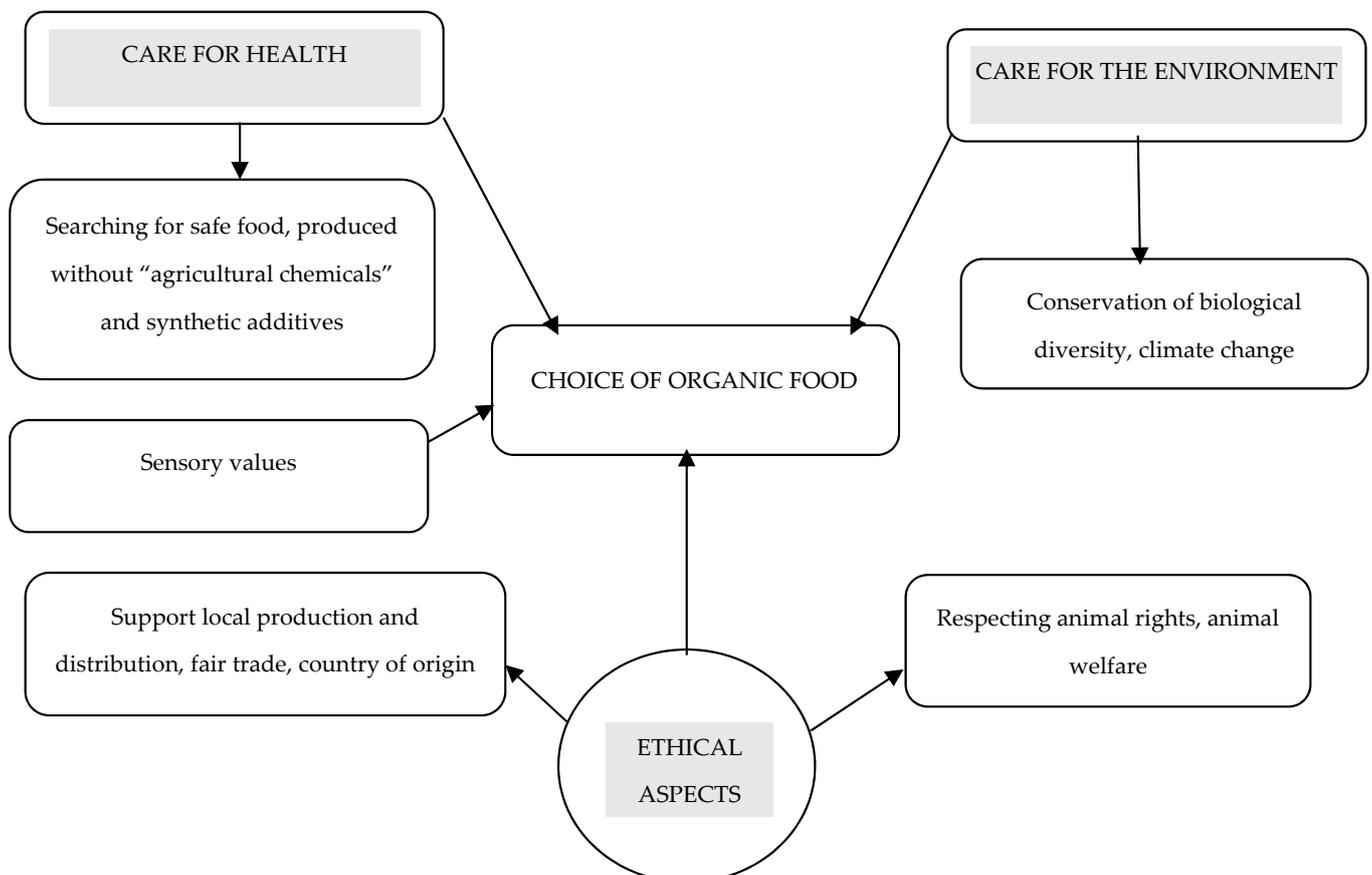
### 2.1. Consumer Environmental Awareness and Consumer Behavior towards Organic Products—Literature Review

The increase in consumers’ environmental awareness makes environmentally-friendly enterprises more favored by consumers [19]. Lončar et al. found that consumers are more likely to buy “green” products, which makes them feel connected to environmental protection. The companies responsive to environmental awareness that may direct consumer behaviors [20,21]. Environmental awareness is a very broad term referring to knowledge about environment and attitude, values, and necessary skills to solve environmentally related problems. It can be defined as an individual’s ability to understand the relation existing between human activities, the current status of environmental quality [22], and an individual’s willingness to take part in environmental activities. A consumer with environmental awareness can be defined as “an ecologist who had grasped his/her self-efficacy against environmental pollution and now has a sense of responsibility with respect to future generations and the whole humanity in their use of resources. Conscious consumers with environmental awareness can assess the presence of environmental resources, their cost of use as well as the impact of this use to the environment and to themselves” [20,23]. Environmental knowledge is a term used to mean an knowledge and awareness about environmental problems and possible solutions to those problems. An increase in knowledge about environmental problems may raise people’s concerns and awareness, however, and result in behavioral changes. Kardos et al. also found a relationship between consumers’ environmental awareness and companies’ green behaviors: a high level of environmental awareness has a significant impact on environmental responsibility behaviors and green procurement [24].

Consumer ecological awareness is expressed through the following [8,25,26]:

- the level of their knowledge about environmental protection and related social responsibility,
- the rationalization of consumption, along with a shift from proquantitative to proqualitative consumption,
- the reduction of the consumption of goods whose production involves nonrenewable natural resources and generates hazardous waste,
- paying attention to corporate social responsibility, and
- the growing popularity of goods and services promoted using socially engaged marketing.

When identifying consumer behavior on the market of organic food products, attention should be paid to the motives for its purchase, significantly different than that of conventional food (Figure 1).



**Figure 1.** Factors determining the choice of organic food. Source: Raport Ministerstwa Rolnictwa i Rozwoju Wsi [27].

While these behaviors cannot be considered universal, they mark a significant trend in a certain consumer group's behavior. This is evidenced by the available empirical findings from studies where consumer attitude to organic food was analyzed [28–31]. Empirical research shows that consumers are convinced of organic food having a positive impact not only on their health but, also, on the environment at large. Research on the environmental awareness of Poles has been carried out since 2000 by the Public Opinion Research Center (TNS OBOP) [32] and the Social Opinion Research Center [33]. Their results indicate a growing ecological awareness. Concerning food products, such studies were carried out, among others, by Patrzalek [34], Szalonka et al. [35,36], Kryk [37], and Łuczka-Bakuła [38]. Interesting research on various aspects of sustainable consumption was conducted by Borusiak et al. [39] and Nestorowicz [40].

Organic farming is one of the most developed and accepted production systems from the perspective of sustainable development. Organic products come from organic farms where no fertilizers, chemical plant-protection products, antibiotics, or hormones are used. In industrialized countries, the organic food market is already recognized as an emerging segment of the food market. Global research indicates that consumers need to increase their supply of organic products, especially dairy, fruit and vegetables, honey, herbs, sausages, bread, and eggs [41–45].

It should be noted that economic growth, social progress, and environmental order are considered to be interdependent phenomena, which implies the necessity of joint problem-solving on the path towards sustainable development [46–49]. Food consumption is a pivotal element of the sustainable policy on the production and consumption of consumer goods. It has a direct impact on public health, the environment, and economic development [50,51]. The organic food market in Poland is still relatively young, with its sales volume and turnover steadily increasing. However, it should be noted that there is a very promising market in Poland, as evidenced by organic retail sales in 2018, which amounted to €250 Million in Poland, an increase of 150% compared to 2010 [52]. Companies importing raw materials for local processing are now on the rise. Consumption-related indicators are rising, too, and so is the number of processors. However, it no longer sounds as impressive when we compare Poland's 0.2% rate for the consumption of organic products to Western Europe's 3% average [53]. The organic per capita consumption in Poland in 2018 was 6 €/person, which is an increase of 200% compared to 2010. At the same time, the EU average (excluding Malta and Portugal due to lack of data) was 56.91 €/person. The coefficient of variation for the 25 EU countries is 159%, indicating a significant variation in organic food consumption across the EU countries [52].

It can be concluded that with the improvement of environmental awareness of consumers, an increasing number of consumers choose environmentally friendly products, although these products can be more expensive, and more consumers are willing to spend money on environmentally friendly products.

## 2.2. *The Role of Research Consumer Behavior towards Organic Products*

The knowledge about consumer behaviors in the organic food market is cumulative, and its deepening requires accounting for different research perspectives, which justifies the permanent addressing of this topic in research [54]. Thus, the argument for the validity of research in this area is the constant dynamism of individuals, not their being static [55]. Thus, given the only fragmentary recognition of consumers' market behavior towards organic products, the available knowledge should be further explored, especially in the face of the permanent evolution of consumer behavior and their environmental awareness due to civilization changes.

The research results presented in the article not only contribute to understanding the behavior of consumers towards organic products, but they also have practical potential to be applied to the food market. From a scientific point of view, the study of consumer behaviors on the market, their environmental awareness allows for verifying various, often complex, economic, psychoeconomic, cultural, and sociopsychological theories [56]. From the perspective of business practice, they help understand and forecast the demand for organic products, which makes it easier for managers to develop effective strategies. The acquired knowledge can be used by food entities to develop effective marketing strategies in target markets and, therefore, to grow their business. Research results can be an inspiration for the food sector to increase organic products' presence on the market. This knowledge is also needed by governmental and nongovernmental institutions whose aim is to instill specific attitudes and behaviors in consumers towards organic products and the environment, as well as to strengthen these products of the food sector in general and, thus, sustainable development. The ability to create organic products becomes a prerequisite for any business associated with the food industry, while positive consumer rating is decisive for an organic products to be successful in the market. The food companies

should also bear in mind market orientation. Knowledge about the market and consumers, consumers' environmental awareness, the risks in purchasing decisions, as well as the involvement of retailers, are the key factors for success in the development of organic food products [57,58]. The acquired knowledge can therefore prove useful in the process of implementing postulates of a new pragmatism in economics [59], according to which economics can, and should, co-shape the economic future of the world based on the principle of moderation and triple balance—economic, social, and ecological. Investigating consumer environmental awareness is necessary from the point of view of controlling the real economy's development [60]. As R. Thaler and C. Sunstein [61] suggested, new knowledge about the determinants of consumer environmental awareness can be used to rationalize market players' behaviors and create a better world. The accumulated knowledge may foster the implementation of a new development paradigm based on integration, sustainability, and durability [62].

### 3. Materials and Methods

#### 3.1. Study Design

In the study, a diagnostic survey with an authorial questionnaire was used (the questionnaire was prepared in Polish, due to the country in which the study was conducted). The study was carried out from October 2019 to February 2020. The questionnaire contained 15 research questions and additional questions defining the sociodemographic characteristics of the respondents. One of our research goals was to determine the relationship between consumer awareness of sustainable development and their tendency to express it when buying organic products. Motives were identified that are of crucial importance to the consumer when deciding to buy organic products. The primary research was conducted by the survey method; for this purpose, the authors' survey questionnaire was developed. The questionnaire contained three sections: demographics, knowledge about organic products, and identification and tendency to consume organic food. In the prepared questionnaire, nominal and ordinal scales were primarily used for five- and seven-point measurements [63]. A Likert scale was opted for, as it allows mathematical computations on variables measured on an interval scale. The measuring scales were validated in accordance with the applicable rules. The frequency of product consumption was measured on a scale of 0–5, where 0 meant "I don't eat/drink it at all", 1 meant "I eat/drink it less than once a month", 2 meant "I eat/drink it once or twice a month", 3 meant "I eat/drink it once or twice a week", 4 meant "I eat/drink it three or four times a week", and 5 meant "I eat/drink it every day". A total of 1067 adult Poles were surveyed. The variable qualifying the participant for the study was their declaration that one of the reasons for purchasing organic products is the concept of sustainable development, expressed in caring for the natural environment and animal welfare, as well as the lack of harmful substances used in food production. In determining the sample size, the size of the entire local population was considered, while a confidence level of 0.95 and a 3% precision order were adopted in the statistical inference regarding the fraction factor [64]. The initial data analysis included checking the correctness of the measurement tool and carrying out the analysis of internal compliance of the scales used using the  $\alpha$ -Cronbach method. In the study, the value of the Cronbach  $\alpha$ -test was within the range 0.70–0.90, which showed that the scales had internal consistency and reliability. Statistical analysis was assisted by Statistica 13.1 PL software (StatSoft, Inc., Tulsa, OK, United States), which includes descriptive statistics, discriminant function analysis, and regression analysis [65].

The discriminant analysis method was used, because it is a method of multivariate data analysis. This technique is an extremely effective tool for classification issues and data mining. Its task is to decide which independent variables (predictors) best divide a given set of cases into naturally occurring groups, described by a qualitative dependent variable.

Linear regression statistics were used to find the equation that best predicts the dependent variable as a linear function of independent variables—this was the reason for using multiple linear regression.

$$Y = b_0 + \beta_1 * x_1 + \beta_2 * x_2 + \dots + \beta_k * x_k + \varepsilon$$

$b_0$ —constant,

$\beta_i$ —model parameter (of regression factors) describing the effect of the  $i$ th variable,

$\beta_1, \dots, \beta_k$ —partial regression factors,

$x_1, \dots, x_k$ —variables examined, and

$\varepsilon$ —random component (Se).

The proposed model, which outlines the relationship between environmental awareness and the tendency to buy organic products, includes the following variables: care for the environment and animal welfare, production is not harmful to the environment, low level of processing, short shelf life, it is produced without the use of artificial fertilizers, chemical pesticides, and antibiotics. The variable data was selected based on a focus interview during which the respondents mentioned associations related to the slogan “pro-ecological awareness”.

The following variables were adopted in the proposed model that described the relationship between the variables that make up sustainable development and the tendency to buy organic products: care for the environment and animal welfare, no harmful substances used in food production, low level of processing, and short shelf life. Consumers have identified concern for the natural environment as an important determinant of proenvironmental behaviors [66,67] and the purchasing of organic food. The authors put forward a hypothesis that there is a relationship between the consumer awareness of the concept of sustainable consumption and the consumption of organic products. In addition, the following research questions (RQ) were formulated:

**RQ1:** *How often does the Polish consumer reach for various types of organic products?*

**RQ2:** *What variables are important for the consumer when deciding to buy organic products?*

**RQ3:** *What are the channels for purchasing organic products preferred by Poles and the preferences of alternative purchasing channels?*

**RQ4:** *Does the awareness of health and environmental benefits (elements of the concept of sustainable consumption) affect organic products' purchases?*

**RQ5:** *Is there a difference in the preferences of organic products between women and men?*

### 3.2. Sample Description

The research sample was derived from Poland's entire adult population, which stood at 31,532,048 [68]. The sample size was set at 1067 respondents with the selection criteria including: the place of residence (villages, towns with a population up to 30,000, and over 30,000); age (up to 25 y.o., 26–40 y.o., 41–55 y.o., and 56 and more y.o.); and sex (Table 1). The determined number of respondents was a representative sample from six regions in Poland: central—220, southern—222, eastern—188, southwestern—109, northwestern—164, and northern—164. In the sample, 52.3% respondents were women, and 47.7% were men. The study was conducted using the Computer-Assisted Web Interview (CAWI) method, applying all the criteria outlined. A database purchased for the purposes of carrying out previous projects RKU/DS/2 within the Department of Agritourism and Rural Development of the University of Life Sciences in Lublin was used.

Our statistical analysis was performed with Statistica 13.1 PL software, which included descriptive statistics, discriminant function analysis, and regression analysis. Multivariate normality was tested beforehand, checking each variable for normality of distribution. It was assumed that the variance matrices were homogeneous across groups. The standard deviation was not accounted for due to the large number of respondents in individual groups.

Statistically significant differences were determined for the mean, whose probability of randomness was lower than  $p < 0.05$ .

**Table 1.** Demographic descriptions of the sample ( $n = 1067$ ).

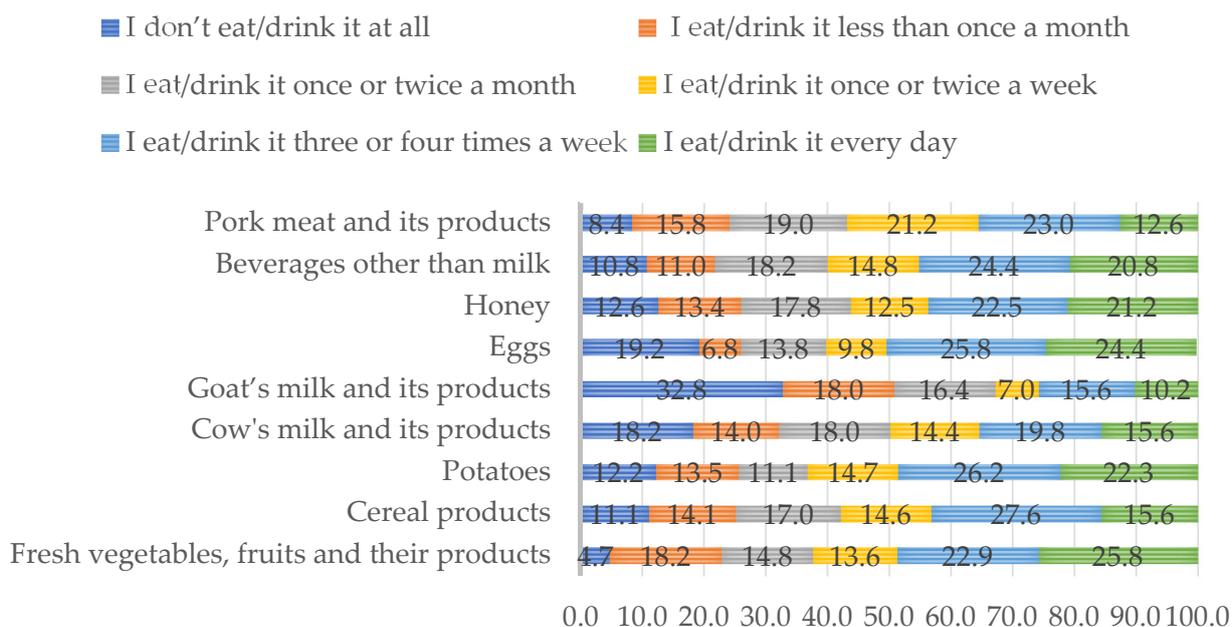
Variable	Category	Frequency	Percentage (%)
Gender	Male	509	47.70
	Female	558	52.30
Age	<25	312	29.24
	26–40	238	22.27
	41–55	299	28.02
	>56	218	20.47
Place of residence	Rural areas (rural communes)	420	39.40
	Cities of up to 30,000 inhabitants (urban–rural communes)	192	18.00
	Cities more than 30,000 inhabitants (cities)	455	42.60
Level of formal education	Primary	341	32.00
	Secondary	393	36.80
	University	333	31.20

Source: Author’s own analysis based on the study materials.

#### 4. Results

The characteristics of Polish consumers’ behaviors in the market of organic products should be started by establishing the frequency of purchasing such products in the households represented by the respondents.

Figure 2 shows the frequency of consumption of particular types of products. It should be noted that almost one-third of the surveyed consumers did not consume such categories of organic products as “goat’s milk and its products”. The situation is better with cow products. Only every twentieth consumer does not buy fresh fruit and vegetables from organic farming.



**Figure 2.** The frequency of various organic products by Polish consumers in the research sample. Note: The data is given as a percentage. Source: Our own analysis based on the study materials.

One of the important aspects of the study on consumer behavior in the market of organic food is the identification of the criteria for its purchase, also determined in the literature on the subject by selection factors. Respondents were to assess on a five-point scale the impact of different variables on their purchasing of organic products. Consumers were most concerned with organic products having more nutrients than conventional and, also, beneficial health effects, with no chemical additives used in their production (no fertilizers or plant-protection products during farm production). Price ranked ninth, which can be explained by the fact that organic products are the domain of conscious consumers for whom product quality and benefits resulting from its consumption are more important than the price, appearance, and eating habits learnt at the family home in the past when organic production was still not widely recognized. The taste of organic food as a shopping decision driver is rated higher than the appearance of organic food (Table 2).

**Table 2.** Decision variables considered by consumers when buying organic food products.

Decision Variables	Mean	Standard Deviation
Price	3.511	1.269
High quality	3.690	1.257
Advertising	3.376	1.226
Country of origin	3.716	1.315
Brand	3.230	1.128
Labels/certificate of origin	3.573	1.131
No additives	3.904	1.181
Content of nutrients	4.035	1.181
No E-numbers	3.638	1.223
Taste	3.739	1.232
Appearance	3.231	1.298
Freshness	3.562	1.197
Friends' recommendation	3.244	1.226
Family home habit	2.746	1.385
Health benefits	4.035	1.181

Note: N valid = 1067. Source: Our own analysis based on the study materials.

The duplicate purchasing method was developed by Ehrenberg [69]. He used it originally to analyze the consumption patterns of different brands. Later, this method was also used for purchasing channels. Based on the research literature on the duplication of purchases methodology, the authors used it to investigate the purchase channels of organic products among consumers (Table 3).

The data in the table in columns A-H show the percentage of consumers in the purchase channel row who also used the purchase channels listed in the columns. For example, 22.88% of consumers purchasing on channel B (Producers' Stores) were purchasing organic products on channel A (On the farmer's organic farm). More than half of the consumers who prefer to buy directly from the organic farm also bought organic products at channel C (Markets, bazaars). It should be noted that the consumer of organic products is conscious and uses all possible purchasing channels. Infrastructure progress, globalization, and technical security have made even channel H (Internet) popular with almost 8% of organic consumers. The respondents who use "Specialized Organic Stores" most often use this channel (channel H). In the entire research sample, the most popular are "Specialized Organic Stores", organized Festivals of organic products (they are organized in June–September in every region of Poland). Traditional markets and bazaars offer organic products, and less than 40% of respondents use this offer.

**Table 3.** Duplicating purchases between the selected purchase channels for organic products among consumers.

Purchase Channel	Total	A.	B.	C.	D.	E.	F.	G.	H.
A. On the farmer's organic farm	20.32		20.58	51.60	18.22	46.88	48.56	22.42	6.78
B. Producers' Stores	14.86	22.88		36.12	32.56	36.14	34.28	28.46	8.60
C. Markets, bazaars	35.20	34.46	19.12		32.60	34.22	42.18	29.16	6.82
D. Fairs, stalls	25.62	26.44	27.62	38.98		48.86	47.46	20.37	4.28
E. Festivals of organic producers	32.75	32.16	26.48	48.28	48.46		38.38	22.48	5.38
F. Specialized Organic Stores	42.28	24.12	32.46	36.48	30.78	29.88		16.96	12.44
G. Large distribution networks	28.60	20.14	18.16	19.14	16.18	12.14	38.68		8.46
H. Internet	15.34	22.06	24.18	42.86	24.28	16.46	32.14	12.18	
Average Duplication		26.03	24.09	39.21	29.01	32.08	39.91	21.72	7.54

Note: Total—the proportion of respondents reporting using a given purchase channel. Duplication can be averaged across purchase channels. The respondents could indicate at least 3 channels. Source: Our own analysis based on the study materials.

In order to determine whether the perception of organic products influences the sustainable development, respondents were asked to rate the statement: “Consumption of organic products contributes to sustainable consumption” (the response suggestions were coded on a five-point scale, which was used as a dependent variable in the regression analysis) (Table 4). The data were analyzed by a linear regression procedure, and the set of factors obtained from the factor analysis for each group of samples were used as predictors. By performing linear regressions, the authors wanted to find and explain the relationship between the independent and dependent variables. It can be assumed that the proposed model, which includes four variables, describes the studied phenomenon well—that is, the relationship between conscious proenvironmental consumption and the tendency to buy organic products. The coefficient of determination  $R^2$  is 0.462, which means that the model explains the relationships between the variables 46.2%. The variables that entered the model are statistically significant at  $p < 0.050$ .

**Table 4.** Linear regression analysis for the variables describing the relationship between the proenvironment awareness and the tendency to buy organic products.

Factors	Estimate $\beta$	Standard Error	$p$ -Value
Care for the environment and animal welfare (A)	0.115	0.025	0.002 *
Production is not harmful to the environment (B)	0.196	0.022	<0.001 *
Low level of processing, short shelf life (C)	0.249	0.023	<0.001 *
It is produced without the use of artificial fertilizers, chemical pesticides and antibiotics (D)	0.218	0.018	<0.001 *
F–statistic of the model		F(11.232) = 1.689	
Constant		3.785	
Random component (SE)		2.264	
Coefficient of determination ( $R^2$ )		0.462	

Note: \* level of significant difference at  $p < 0.05$ . Source: Our own analysis based on the study materials.

The combination of the variables presented in Table 5 shows the projected contribution of organic products to sustainable development, with all four variables having a significant impact on the predicted pattern of consumer behavior. The  $\beta$  values are as follows: the largest coefficient indicating which independent variable has the greatest effect on the dependent variable is “Low level of processing, short shelf life” (C), then “It is produced without the use of artificial fertilizers, chemical pesticides and antibiotics” (D), hereinafter “Production is not harmful to the environment” (B), and finally, “Concern for

the environment and animal welfare" (A). The presence of these variables in the consumer module can be explained by the world's current ecological situation and the emphasis on environmental education in schools. Numerous advertising campaigns educate Polish consumers and explain the concepts of sustainable development. They also refer to the egocentric features of a social unit: "by taking care of your health, by choosing organic products you care for the environment". The regression equation is as follows:

$$Y = 3.785 + 0.115A + 0.196B + 0.249C + 0.218D \pm 2.264$$

**Table 5.** Types of organic products selected for consumption.

Type of Products	Model of Discriminant Analysis			Classification Functions	
	Wilks' Lambda: 0.955 F (12.749) = 2.9140 $p < 0.001$ *			Gender	
	Wilks' Lambda	F Value	$p$ Level	Male $p = 0.56$	Female $p = 0.43$
Fresh vegetables, fruits and their products	0.962	4.818	0.001 *	1.249	1.270
Cereal products	0.961	4.818	0.001 *	0.792	0.846
Potatoes	0.956	0.570	0.001 *	0.243	0.238
Cow's milk and its products	0.958	2.919	0.001 *	0.829	0.722
Goat's milk and its products	0.956	3.525	0.001 *	0.113	0.233
Eggs	0.957	2.146	0.011 *	1.114	1.032
Honey	0.958	2.184	0.002 *	0.941	0.955
Beverages other than milk	0.958	2.183	0.140	0.535	0.625
Pork meat and its products	0.958	1.889	0.169	0.721	0.698
Constant				13.613	12.971

Note: \* level of significant difference at  $p < 0.050$ . Source: Our own analysis based on the study materials.

In the presented study, the authors also undertook to determine whether, with regard to Polish consumers, gender differentiates their behavior in the market of organic food products. National data [68] shows that the highest share of consumers purchasing organic food products are the people aged 26–45. Organic food is mainly preferred by women with a high level of education, aware of the value of organic products. Turra et al. [70], Ramesh and Divya [71], and Toit and Crafford [72] presented similar findings in their respective studies. Their findings suggest that the person responsible for buying food in a household is typically a woman with a stable financial position, aged 30+, and well-educated. Our research seconds that, with sex emerging as a variable that differentiates purchasing behavior towards individual categories of organic food products. Fresh vegetables, fruits, and their products were the most popular among organic foods. Significantly, at  $p < 0.001$ , these products were more often purchased by women than men.

Taking into account the gender of the respondents, information was obtained on the types of organic products purchased among the respondents from the research sample. There are nine variables in the proposed model of discriminant analysis. Table 5 presents, in detail, the statistically significant discriminatory differences in the surveyed groups in terms of the types of products that are most often chosen by consumers.

Great importance was attached to the purchase of organic pork, cow's milk, and its products. To a significantly higher extent, at  $p < 0.001$ , such declarations were expressed by men. Additionally, for the former group, the purchase of organic potatoes and organic nondairy drinks was indicated as more important.

When buying cereal, goat's milk and its products, and honey, women were more attracted to these products' organic origins than men. In most cases, the differences in

value in classification functions were significant, with higher values reported among women (Table 5).

Consumers of organic products are characterized by their high awareness of the benefits arising from consuming these products. By purchasing organic products, they support organic farming and, thus, the concept of sustainable development. Purchasing decisions contribute not only to eliminating artificially enhanced food from their menu but, also, to promoting environmental education (by expanding knowledge about product origin marks or certifications). Both organic producers and processors are required to label their goods using appropriate certificates. To verify this, an organic product should have a certificate logo on the label in the form of leaf-shaped stars on a green background (the so-called Eco Leaf) [73].

Even though the Polish consumer is—as research shows—a conscious consumer, what stands in the way of compliance of consumer awareness and shopping behavior is the price factor. Organic products are more expensive than conventional foods, and despite the EU's broad support for organic farming, organic products are often out of reach due to their elevated prices. In a study conducted by Torjusen et al. [74], the relationship between the increased percentage of organic consumers and the increased GDP (Gross Domestic Product) per capita, along with the increased level of education, were confirmed.

The variables mentioned above, responsible for the awareness of sustainable development among consumers, meant that entrepreneurs saw a gap in the market of gastronomic establishments.

In this research, statistically significant relationships between sex and a tendency to buy and consume organic products were found.

## 5. Discussion

Encouraging more sustainable food consumption is critical to future sustainability. Fostering the purchase of organic food makes an important contribution to sustainable production and consumption [75]. The results of the presented study refer to the research conducted by Laureati et al. [76] and Scalvedi and Saba [77], i.e., they combined the aspect of sustainable development (part of which is the sustainable consumption) with the consumption of organic products.

Product perception is crucial to making purchasing decisions and is considered a determinant of the intention to buy and consume specific food products. It can be concluded from the literature review that organic consumers fall into several groups based on the main behavioral categories [78]. Eco-activists, eco-dietitians, eco-traditionalists, and eco-innovators are the four groups of consumers whose behaviors in the organic food market are backed by their knowledge of potential benefits arising from going organic—that is, to contribute to sustainable development. Eco-activists care for their and their family's health, eco-dietitians look for healthy ingredients and disease-preventing foods, eco-traditionalists look for a better taste than that offered by conventional foods, and eco-innovators are consumers caring about the environment. Our research confirms that the main reasons for choosing organic food products are: health benefits, content of nutrients, and lack of hazardous additives (enhancers) [79].

Naspetti and Bodini [80] found that the “organic” attribute is associated with a higher level of trust. Consumer awareness, reflected in their identification of food ingredients (information contained on the labels: composition, expiry date, and symbols denoting food as organic), is confirmed by Drexler et al. [73]. The same was also found in Dominick et al. [81], where consumers who read labels and recognize certification marks are more likely to buy organic products. A certified sustainable development brand plays an important role in the consumer's perception. The results presented by the authors show that the “Organic Brand” variable, according to the consumer, occupies an important place among the selected variables that determine the purchase (No additives, Content of nutrients, and Health benefits). A social marketing orientation has added a new sense to labels and their contents, and they are now expected to not only perform distinctive and

promotional functions but, more than anything, be a carrier of educational and warning information of commercial nature [82]. The above-mentioned information has also been proven in the authors' research, where the most important purchasing variables (which are on the labels, in addition to a recognizable brand and certification mark) were: No additives, Content of nutrients, and Health benefits. The consumer can obtain information on these variables from the labels that are placed on the products or directly at the seller, as well as the store's affiliation (e.g., specialist organic food stores)—selected by the consumer as one of the preferred channels for purchasing.

The decision to consume organic food springs mainly from its perceived benefits, which leads to its purchase [83]. This confirms the egocentric motives driving consumers in their choices, as mentioned in the analysis of the results. The consumer is interested in the health aspect, caring for their families about their health.

The method of duplicating the purchase channels mentioned in the Dawes [84] and Lees and Wright [85] research was used to determine the preferences of the places of purchase among the respondents. In line with the applied methodology, "Fairs, bazaars" and "Festivals of organic products" are very popular among buyers. Comparing to the research conducted by Bryła [86] among organic e-consumers, there are differences in the analysis of purchase channels. Despite differences in sample sizes and distributions of the results, the most popular purchasing channels are similar: "Specialized Organic Stores" and "Markets, bazaars". The least popular purchasing channel is the Internet. In the research carried out by Essoussi and Zahaf [87], Zepeda and Deal [88] showed a lack of trust in organic products purchased in other places than specialized stores and directly on an organic farm (where the consumer receives a 100% guarantee of product origin) [89,90].

Azurra et al.'s [91] research confirmed the authors' assumption that consumers who prefer organic products show a higher level of concern for sustainability when making overall dietary choices and lead to more sustainable lifestyles. According to Monier Dilhan and Bergès [92], the results presented suggest that consumers involved in purchasing organic foods appear to be strongly motivated by public variables such as environmental and social. Personal benefits such as health and quality also have a large impact on the choice of foods. This confirms the major role played by individual environmental and social concerns in determining the propensity to consume organic products [93–95]. Thus, according to Rana and Paul [96], the greater the concern about such public and personal issues, the more likely it is that consumers will consume organic products. Finally, organic food consumers believe that it has a beneficial effect on health (no substances prolonging the shelf life or taste enhancers), which encourages engagement in organic consumption [97].

According to Đorđević and Buchtova [98], the rarity of a product can be seen as a potential opportunity, which affects its acceptance and the frequency of consumption of the product. Undoubtedly, organic products, due to their price, for some segments of consumers, meet this condition, especially in relation to goat milk products and its derivatives.

Variables describing sustainable development proposed by the authors of the studies "Care for the environment and animal welfare", "No harmful substances used in food production", and "Low level of processing, short shelf life" corresponded to the research variables in Konuk's research [99]. The result of his research was that the sustainable consumption trend gave rise to restaurants that only serve dishes made from organic products. Bearing in mind this was a niche segment just a few years ago, the organic food market is now booming. The sustainable consumption trend has given rise to restaurants that only serve dishes made from organic products.

Analyzing the sociodemographic variables, the results show that women have a greater tendency to be organic consumers due to the fact that women are mostly responsible for purchases, as confirmed by previous studies [95,96,100]. Due to age, older people and retirees are usually low-intensity consumers. This can be explained by the fact that income levels, which are a factor influencing organic shopping [101], are lower among retirees. On the other hand, the results and data from the reports of the Ministry of Agriculture and Rural Development of Poland confirm that young people show a higher intensity of

organic food consumption [27,102], and, therefore, young consumers should be considered as key stakeholders in the transition to more sustainable food systems [103–106].

### *Limitations*

Although this study was conducted on a sample representative of the country, it had some limitations. The main limitation of the study was that not all factors were taken into account. All variables included in this study were self-reported rather than observed. Due to the potential attitude–behavior gap that is common in consumer research, the results should be treated with caution.

The choice of the research method (CAWI) was dictated by cost–benefit considerations in the context of the study objectives. The term “organic” can be understood as having an organic food certificate/logo/brand, but some respondents could take the term more broadly, focusing on the production method itself rather than its formal recognition. Restrictions may have also resulted from the choice of a differentiation variable, i.e., the consumer’s gender.

When conducting future research, one should take into account all aspects (determinants) of consuming organic products and pay particular attention to the importance of labels informing the consumer about the origins of the food, which, in this study, were treated marginally, only as one of the variables deciding about the purchase where you can find information about the brand or certificate. It is widely known that certification means additional costs, but a recognizable label provides consumers with necessary information about the origins of products and producers of a recognizable brand.

## 6. Conclusions

Summarizing the results of our study on organic consumers, the empirical findings suggest to industry practitioners and decision-makers that efforts should be made to increase the consumption of organic foods and communicate the health, environmental, and social benefits associated with the production and consumption of such foods, focusing on younger consumers as key stakeholders in the transition to more sustainable food systems.

The empirical findings suggest some implications useful to both industry practitioners and decision-makers in promoting the transition to more sustainable eating practices in society. Given that the level of sustainability concerns affects the intensity of organic consumption, communication activities should highlight the environmental, social, and economic benefits associated with producing and consuming organic food. In this respect, marketers and decision-makers should work together to promote a sustainable approach, emphasizing that organic farming can provide positive externalities not only for the environment but, also, for economic and social aspects, such as employment opportunities and rural development. In particular, the interest in organic products can be increased by claiming that they have additional sustainability characteristics (such as animal welfare, local origin, and respect for human rights). Voluntary labeling/marketing should be carried out as part of a wider promotion and education project, managed by both institutions and food systems. It should then accompany other information and dissemination activities in an integrated social marketing project. Food systems policy organizations need to develop new publicity/information campaigns to inform and educate about the social benefits that could be achieved by consuming organic foods.

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