

# Sustainable Consumption in the Behavior of Young Consumers

By Joanna Wyrwa<sup>1</sup>, Anetta Barska<sup>2</sup>, Janina Jędrzejczak-Gas<sup>3</sup>,  
Krzysztof Kononowicz<sup>4</sup>

## ABSTRACT

The aim of the article is to characterize the attitude of young consumers towards the concept of sustainable consumption in the area of food consumption, which is manifested, among others, in the declared engagement in sustainable behaviors both in the market as well as in households. The research was conducted using the CAWI method on a sample of Polish consumers from the Lubuskie region. The article consists of two parts. The first part explores the problems of sustainable consumption. The second part presents the results of research on consumer attitudes towards the concept of sustainable consumption in the area of food consumption. Particular attention was paid to the awareness of the implications of consumer behavior in the process of satisfying food needs. Behaviors, attitudes and beliefs of consumers related to sustainable consumption were characterized, and an attempt was subsequently made to determine the extent of the gap existing between behaviors and attitudes. The conducted survey research constituted an attempt at highlighting certain consumption problems among young people, to have them share their views on the different issues of sustainable consumption, as well as to emphasize the importance of various factors in shaping sustainable food consumption patterns. The article certainly is not an exhaustive examination of all the problems areas of sustainable consumption, but it should make these more easily identifiable all while stressing the real role and importance of sustainable behaviors among young consumers in the modern economy.

*Keywords: sustainable consumption, sustainable development, young consumer.*

## 1. Introduction

In recent years, significant changes in food consumption around the world have been observed (Chu et al., 2023; Kabir, 2023; Gan et al., 2022; García-Oliveira et al., 2022; Hoek et al., 2021; Holotová et al., 2021; Sumaedi, Sumardjo, 2020; Moore-Berg et al., 2019; Promsivapallop, Kannaovakun, 2019). On the one hand, there is a process of unification and similarity of consumption patterns; on the other hand, the individualization of shopping preferences and lifestyle are becoming increasingly visible. In addition to that, new phenomena and trends in consumer behavior are emerging and spreading. This variety of trends triggers two apparently contradictory phenomena: consumerism (associated with excessive and irrational from the perspective of human needs consumption of goods and services), and conscious, sustainable consumption, which is an important element of sustainable development (Diaconeasa et al., 2022; Dimitrova et al., 2022; Grzega, 2021; Salimath, Chandna, 2021; Pilgrimiené et al., 2020; Quoquab,

<sup>1</sup>University of Zielona Góra, Faculty of Economics and Management, Poland

<sup>2</sup>University of Zielona Góra, Faculty of Economics and Management, Poland

<sup>3</sup>University of Zielona Góra, Faculty of Economics and Management, Poland

<sup>4</sup>President of the Board Leks Ltd., 69-200 Sulęcín, Poland

Mohammad, 2020; Wang et al., 2019). At the World Summit on Sustainable Development in 2002, sustainable production and consumption were recognized as one of the overarching goals and essential requirements for sustainable development (the other two goals being environmental protection and poverty reduction). In 2015, 193 UN member states adopted the Transforming Resolution Our World: the 2030 Agenda for Sustainable Development, a strategy for the development of the world until 2030. It contains seventeen Sustainable Development Goals, of which goal twelve is devoted in its entirety to ensuring sustainable consumption and production patterns. As can be seen, increasingly often the notion of "maximizing consumption" gives way to the search for moderation, which manifests itself in reducing economic and social imbalances, promoting sustainable development, and perhaps more importantly, promoting a sustainable environmental impact and sustainable consumption. The transition to sustainable consumption therefore requires the change in consumer attitudes, including increasing the level of ecological awareness and the sense of responsibility for the state of the natural environment and for future generations (Lubowiecki-Vikuk et. al., 2021; Saari et. al., 2021). One of the key factors driving the development of sustainable consumption is the growing awareness among consumers. A conscious consumer is someone who is interested in learning the origin, composition, production methods of the product, or the social responsibility of the producer. The increasing consumer awareness thus springs to life a new consumer profile – rational and demanding, which in turn shapes conscious demand in the long run while triggering important market changes.

The article is an empirical attempt to determine the implementation of the principles of sustainable consumption and consumer behavior in the process of meeting food needs using the example of the population of young people living in Poland's Lubuskie region. The survey research consists in analyzing the compliance of consumer behavior with the concept of sustainable consumption. The aim was to try and answer the following research questions: To what extent do young consumers from the Lubuskie region comply with the principles of sustainable consumption in the area of food consumption? Which factors are conducive to, or constitute a barrier to, making sustainable consumption choices?

The article was created as part of the "Small Grants for Public Universities" initiative. The preparation of the publication was possible thanks to the financial support of the Board of Lubuskie Provinces. Therefore, the subject of the research were young consumers from the Lubuskie region. The results of the conducted research may constitute a contribution to assessing the effects of the policy pursued so far in the Lubuskie region in the field of sustainable consumption.

## **2. The essence of sustainable consumption – A Literature Review**

According to the definition of the Food and Agriculture Organization (FAO), a sustainable diet is one that is protective and respectful of biodiversity and ecosystems, culturally acceptable, accessible, economically fair and affordable; nutritionally adequate, safe and healthy; while optimizing natural and human resources (FAO, 2010). At the foundation of this definition lie two notions: that of needs and that of limitations imposed by the ability of the natural environment to meet our current and future needs. Sustainable

consumption implies such use of material goods and services that allows to meet basic needs and achieve a higher quality of life, while minimizing the consumption of natural resources, toxic and environmentally harmful materials that are created at all stages of production, and not limiting the rights of future generations to such consumption (Maciejewski, 2020). Let us also note that household food consumption accounts for more than 60% of global greenhouse gas emissions and 50 to 80% of total resource consumption (Vermeir *et al.*, 2020). It thus becomes necessary to comply with the principles of sustainable consumption whose goal is to protect the ecosystem and by extension to provide future generations with adequate development opportunities. Shaping appropriate attitudes among young consumers and creating appropriate conditions for the development of sustainable patterns are therefore of much importance in the development of sustainable consumption. An important role in stimulating consumption is played by the public sector, which, through the use of appropriate tools, can contribute to shifting the current model of consumption towards a more sustainable one. Ensuring sustainable consumption and production patterns is in fact goal number twelve of the 2030 Agenda for Sustainable Development. A key element in the implementation of the Sustainable Development Goals is the definition of evidence-based quantitative indicators to measure and monitor progress towards reaching the goals and their corresponding objectives (United Nation, 2015). Sustainable food consumption calls for increasing the share of plant-derived products in daily nutrition and reducing the consumption of animal-derived products, reducing food waste and consumption of highly processed products, as well as more frequent choosing of local, seasonal products marked with quality certificates and fair-trade labels (Halicka *et al.*, 2019).

The overriding goal of sustainable consumption is to improve the quality of life in many aspects: economic, ecological, social, psychological, demographic, spatial, and intertemporal. The economic aspect concerns ensuring fair prices for both agricultural entrepreneurs and consumers. The ecological component covers care for the natural environment, including plant and animal factors of production, the living environment in general and the quality of human life. Finally, the social component deals with the adjustment of production processes to the priorities and needs of society, as well as appreciation and support for the primary production sector at a both societal and governmental level (Vermeir, Verbeke, 2008).

The implementation of this goal depends on several factors, among them the level of development of a country, including in particular climatic conditions, the level of agricultural advancement and food processing, the degree of economic and civilizational development of the society, including consumer behavior and many other variables (Gulbicka, 2009; Śmiechowska, 2015).

In recent years, a number of publications have attempted to examine the factors that underlie consumer demand for sustainable food, including positive attitudes towards sustainable food choices, personal standards, knowledge and commitment to sustainability and food – the attitudes referred to collectively as the social responsibility of consumers. In the literature, attempts have been made to understand the factors affecting consumer attitudes and preferences (Azzurra *et al.*, 2019).

In Poland, consumer social responsibility is still an emerging trend in the behavior of the most innovative consumers. Meanwhile, in the mid-1990s, the term LOHAS

(Lifestyles of Health and Sustainability) was coined to describe those consumers who actively seek a healthier and more sustainable lifestyle and choose product and service alternatives consistent with that idea. In the United States, this community comprised nearly 25% of the population at the time. LOHAS make purchasing decisions keeping in mind their own health, that of their family and society at large, as well as environmental balance and social justice (Kaczorowska et. al., 2018). The essence of sustainable consumption comes down to making responsible consumer choices, namely those that respect ethical, environmental and social consumption standards. Sustainable market behavior includes the purchase of environment-friendly and ethical (socially responsible) products and minimized generation of waste. The latter can also be classified as sustainable behavior in the household context (Zralek, 2018). Transformation of the food system will not be achieved without changing the way people view and interact with food systems. Changing individual decisions and behaviors is embedded in strategies proposed to propel into existence a more sustainable food system, with such practices including changing food production practices or a radical change of diet (Hoek et. al., 2021).

### **3. Methods**

The completed research addresses an important though little-recognized topic in the modern economy and science, and that is sustainable household consumption. Sustainable, or rational, consumption, is part of the broader concept of sustainable development. It covers such activities of consumption-involved entities that lead to meeting the needs of consumers while caring for the natural environment and the lives of other people – present and future generations. This approach is particularly important in the context of examining generational differences. Young consumers were selected as the focus of the research as they are an important social group from the perspective of sustainable and ecological consumption (Pena-Cerezo et. al., 2019). People of the young generation have experienced a long period of economic prosperity and the related dynamic development of modern technologies and the globalization process, which have had an impact on the way they interact with their surroundings. Let us also note that information and communication technologies developed in the second decade of the twenty-first century have propelled the emergence of new lifestyles among consumers as well as new ways of meeting their needs. These changes led to transformations in the hierarchies of values and to the emergence of still new needs, which significantly determined the purchasing and consumption attitudes of the representatives of the young generation. These arguments justify the inclusion of young people in the deeper research. This may lead to the acquisition of new knowledge and help in shaping the economic future of the world and contribute to the sustainable development of Poland's Lubuskie region. Representatives of the young generation are an interesting subject of research given that they differ from their predecessors in the area of expressed attitudes, culture, lifestyle and aspirations, all while retaining a relatively high purchasing power. The implications of their behavior shifting towards sustainable consumption in relation to the economy have not yet been sufficiently researched, despite the fact that the dynamics of this behavior will have a marked impact on the development of different sectors of the economy. The fragmentary recognition of the young consumers' market behavior means that the available

knowledge needs to be supplemented, especially in the face of the permanent evolution of consumer behaviors resulting from civilizational changes (Barska *et al.*, 2023).

The research was carried out in the form of a proprietary survey questionnaire using the CAWI information technology. The research was aimed at determining the degree of involvement of young consumers in socially responsible activities, learning about the areas of these, as well as about their motives. In the study, the assumption was made that a phenomenon emerging in the area of consumption among young people is their high awareness of growing social and environmental challenges and the resulting risks. This awareness is becoming the main driving force behind socially and environmentally responsible behaviors in which young consumers these days are engaging. The questionnaire contained single- and multi-choice questions. Mainly nominal, ordinal scales (Likert scale, rank scale) were used. The pilot study was also preceded by the verification of the measurement tool. The Cronbach's alpha test was used to assess the reliability of the measurement scales, which ranged from 0.748 to 0.888, which means that the scales were correct (Sagan, 2004).

#### 4. Results and discussion

The consumer attitudes towards the category of sustainability itself, as well as sustainable consumption in households are becoming particularly important in the modern economy based on the concept of sustainable development. Shaping such lasting positive attitudes of consumers towards sustainable consumption in their households in the long run may turn into behavior consistent with the principles of sustainability and bring beneficial effects both for consumers themselves and their households, as well as for the entire economy (Sobocińska, 2022; Ziesemer *et al.*, 2021; Smyczek, 2020; Zalega, 2019). The sustainable consumption is becoming a kind of alternative to consumerism in the modern world (Vargas-Merino *et al.*, 2023). This is a consumption model that focuses on consumers' self-limitation to consumption required by biological conditions and the level of socio-economic development. Sustainable consumption is therefore an opportunity to optimize consumers' market decisions. However, the effects of implementing this concept will only be visible when certain lasting positive attitudes towards sustainable consumption and market behavior are developed among consumers, which will lead to the transfer of these new consumption patterns to new markets and products.

The sustainable and rational food consumption plays an important role in the concept of sustainable consumption. Food consumption is a sphere of consumption because, apart from its basic nature, it expresses the latest trends in consumer behavior related to the development of civilization (Skawińska *et al.*, 2023; Kieźel, 2020). The sustainable consumer behavior in the area of food consumption should be considered as consumer behavior that leads to the satisfaction of nutritional needs at a level that allows for the proper functioning and development of the body and ensures a satisfactory quality of life in this area, at the same time minimizing the consumption of natural resources and materials harmful to the environment, and also has for the good of other people (in the long term) (Szwacka-Mokrzycka *et al.*, 2021; Zrąlek, 2018).

The concepts of consumer behavior in the area of food consumption are based on specific assumptions (Kieźel, 2020):

- the consumers do not perceive the principles of economic rationality in their common understanding;
- the consumers do not make food choices randomly;
- the consumer behavior is the result of meeting both innate and acquired nutritional needs and involves a complex combination of conscious and unconscious processes as well as factors of various nature, economic and non-economic, including emotional ones.

This results in the complexity of the process of meeting needs in this sphere and the associated methodological difficulty in assessing the rationality of behavior and determining the criteria and measures of this assessment.

To determine the attitude of today's young consumers towards sustainable food consumption, a survey research study was conducted. The empirical material is the result of a survey conducted among 370 young Polish consumers in the first half of 2023 using the CAWI (Computer Assisted Web Interview) method. Females accounted for 64.41% and men for 34.59% of the study population. Rural area (countryside) as a place of residence was represented by 26.76% of the respondents, town with a population of less than 50 000 – by 21.08%, city with a population of 50 000-150 000 – by 34.59%, and city with a population of 150 000 and more – 17.57% of respondents. In the study group, people whose financial situation was average (43.51%) and good (34.86%) were predominant, while the least numerous group comprised people who assessed their finances as bad (2.43%). The breakdown of respondents by category is shown in Figure 1.

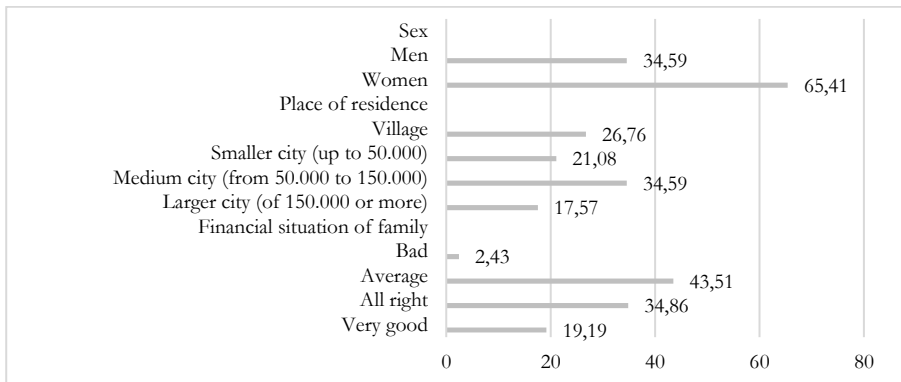


Figure 1. The structure of respondents (in %)

Source: own study.

Through the prism of the discussed issues of consumption and rational behavior, it is important to highlight the concept of sustainable consumption. The research demonstrates that this concept is foreign to as few as 3.51% of young consumers in Poland who claim to have never come across it. Most of the respondents (96.49%) are familiar with this concept. The largest group of respondents "came across" this concept once or twice (54.32%). The feedback varies depending on the gender, place of residence and financial situation. The concept of sustainable consumption was more familiar to women, and surprisingly, to the residents of rural areas. In addition, as their financial situation

improves, the share of young consumers familiar with this concept increases, and the number of respondents who have no knowledge of it decreases.

**Table 1.** Familiarity with the term "sustainable consumption" among young consumers

Description	yes, many times	yes, I've heard that term once or twice	that's what I heard, but I didn't know what it meant	no never
Total	29.19	54.32	12.97	3.51
<b>Sex</b>				
Women	28.51	54.13	12.81	4.55
Men	22.66	55.47	14.84	7.03
<b>Place of residence</b>				
Village	44.44	52.53	2.02	1.01
Smaller city (population up to 50.000)	12.82	26.92	48.72	11.54
Medium city (population from 50.000 to 150.000)	13.28	77.34	0.78	8.59
Larger city (population of 150.000 or more)	32.31	49.23	16.92	1.54
<b>Financial situation of family</b>				
Bad	0.00	11.11	33.33	55.56
Average	18.01	63.35	13.04	5.59
All right	40.31	51.94	6.98	0.78
Very good	26.76	45.07	26.76	1.41

Source: *own study*.

The results of the research allowed us to determine whether the consumption pattern of young people can be considered sustainable. Over 50% of respondents consider their consumption to be sustainable. It should be emphasized that the awareness of sustainable consumption increases as the financial situation of young consumers improves. At the same time, it can be observed that the willingness to engage in sustainable consumption is declared mainly by women and residents of rural areas.

**Table 2.** Young consumers towards sustainable consumption (%)

Description	yes	rather yes	no	I don't think so	hard to say
Total	5.41	46.22	8.11	20.54	19.73
<b>Sex</b>					
Women	4.55	54.13	0.41	16.94	23.97
Men	7.81	30.47	22.66	31.25	7.81
<b>Place of residence</b>					
Village	9.09	52.53	1.01	28.28	9.09
Smaller city (population up to 50.000)	1.28	37.18	12.82	11.54	37.18
Medium city (population from 50.000 to 150.000)	0.78	53.13	1.56	21.88	22.66
Larger city (population of 150.000 or more)	16.92	33.85	30.77	16.92	1.54

<b>Financial situation of family</b>					
Bad	0.00	0.00	11.11	55.56	33.33
Average	0.62	47.83	1.24	24.84	25.47
All right	8.53	53.49	15.50	8.53	13.95
Very good	15.49	26.76	16.90	28.17	12.68

Source: own study.

The subjective assessment of the level of knowledge regarding the ways to satisfy nutrition needs that are consistent with the concept of sustainable consumption indicates an unsatisfactory situation in this respect (Table 3). Nearly 38% of the respondents assessed their level of knowledge as insufficient and definitely insufficient. A large part of the respondents considered their knowledge in this area to be average (29.73%). Only 32.7% believe that they have sufficient knowledge in this area. Consumers who assessed their knowledge in accordance with the principles of sustainable consumption as sufficient are mainly females, residents of cities with a population between 50 000 and 150 000, and those enjoying a very good financial situation. Considering the high share of respondents unfamiliar with the concept of sustainable consumption, the level of knowledge among young consumers in the area of sustainable and therefore rational nutrition behaviors should be considered unsatisfactory.

**Table 3.** Subjective assessment of the level of nutrition knowledge among young consumers consistent with the principles of sustainable consumption (%)

Description	definitely insufficient	insufficient	neither sufficient nor insufficient	sufficient	definitely sufficient
Total	13.51	24.05	29.73	30.27	2.43
<b>Sex</b>					
Women	8.68	21.07	37.19	32.64	0.41
Men	22.66	30.47	15.63	23.44	7.81
<b>Place of residence</b>					
Village	2.02	19.19	48.48	29.29	1.01
Smaller city (population up to 50.000)	11.54	48.72	12.82	25.64	1.28
Medium city (population from 50.000 to 150.000)	21.88	15.63	23.44	38.28	0.78
Larger city (population of 150.000 or more)	13.85	16.92	35.38	15.38	18.46
<b>Financial situation of family</b>					
Bad	55.56	33.33	11.11	0.00	0.00
Average	6.83	37.89	30.43	24.22	0.62
All right	23.26	8.53	29.46	37.98	0.78
Very good	1.41	29.58	26.76	28.17	14.08

Source: own study.

Attitudes towards sustainable consumption were examined e.g. through the prism of the frequency of behavior of young consumers in purchasing food products that are consistent with the concept of sustainable consumption (Table 4). A five-point scale was



used to explore this area of research, where 1 meant never and 5 meant always. The study found that, when shopping for food, young consumers are most frequently guided by the principle of adjusting the amount of purchased goods to their needs so as to minimize waste (the average score of 3.72). The principle of prudent shopping in relation to the amount of food products purchased is most widely applied by females, residents of cities with a population of more than 150 000 and those with a good financial situation. When shopping for food, a relatively large share of young consumers choose unprocessed or low-processed products, which is particularly important for health reasons (the average score of 2.95). The inclination to buy locally produced food, which may be a manifestation of ethnocentric attitudes of consumers and express their concern for the quality of goods, is also voiced by a large share of the respondents (the average score of 2.73). Meanwhile, behaviors related to the purchase of food in biodegradable, economical packaging received the lowest ratings (the average score of 2.64). This points to the insufficient level of care among young consumers for the natural environment.

**Table 4.** Frequency of selected behaviors of young consumers consistent with the concept of sustainable consumption in the area of food consumption (average score)

Description	buying food in such quantities that nothing goes to waste	choosing food products in biodegradable packaging, easy to process, economical, etc.	purchase of locally produced food products (close to where you live)	choosing unprocessed / least processed food products
Total	3.72	2.64	2.73	2.95
<b>Sex</b>				
Women	3.85	2.69	2.83	2.96
Men	3.46	2.54	2.54	2.92
<b>Place of residence</b>				
Village	3.87	2.70	3.91	3.61
Smaller city (population up to 50.000)	3.75	2.51	3.38	2.88
Medium city (population from 50.000 to 150.000)	3.16	2.26	2.46	2.62
Larger city (population of 150.000 or more)	4.21	2.77	2.17	2.97
<b>Financial situation of family</b>				
Bad	3.78	2.22	2.11	1.89
Average	3.69	2.63	3.06	3.13
All right	3.92	3.62	2.62	3.72
Very good	3.13	3.71	2.43	3.86

*Source: own study.*

Considering the criteria of biological and social rationality, it is important to determine the frequency of consumers purchasing organic food products. The study covered groups of products whose consumption has a significant impact on health and proper functioning of the human body, such as milk and dairy products, eggs, fruit, vegetables, meat and meat-derived products, bread and confectionery. A five-point scale was used, where 1 meant never and 5 meant several times a week. A small group of young

consumers shop for organic food products with high frequency (several times a week). The frequency of such purchases is primarily differentiated by the financial situation of the respondents. The more favorable the financial situation of young consumers, the more frequently they purchase organic products (Figure 2).

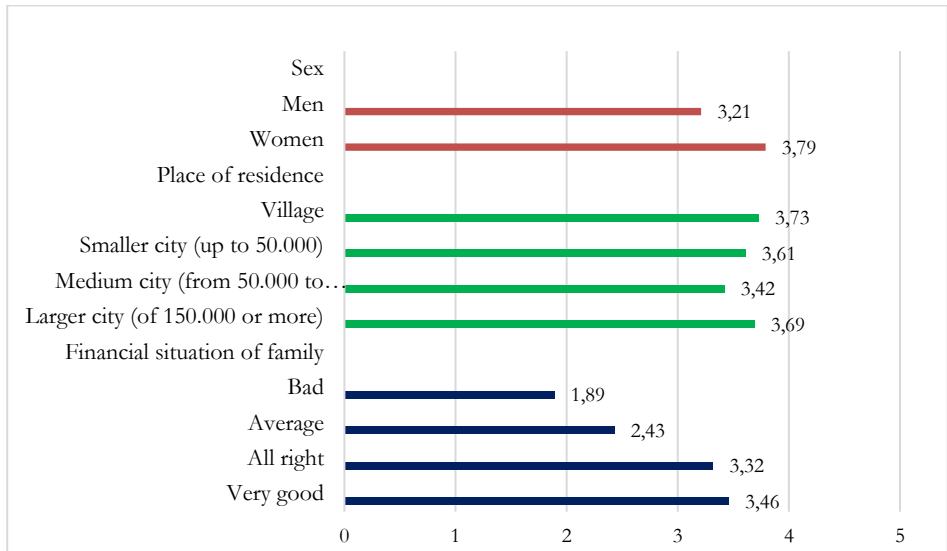


Figure 2. Frequency of purchasing organic food products (average score)

Source: own study.

An important aspect of sustainable behavior – from the economic, biological and social standpoint – is the tendency to obtain information about the product, its characteristics and the production method beforehand. The research determined the frequency of verifying selected food product features (Table 5). It should be emphasized that getting acquainted with the characteristics of the product before making a decision on the choice of food is a relatively rare practice among young consumers. They show the least interest in learning about the method of production (the average score of 2.22). The type of packaging is also occasionally verified (the average score of 2.47). Consumers show similarly poor interest in the product's country of origin (the average score of 2.92). Consumers are relatively most active about obtaining information on: best-before date (the average score of 4.27), calorific value (the average score of 3.43) and ingredients (the average score of 3.27). In what concerns the biological criterion, the content of ingredients and the calorific value are considered very important features. However, it should be noted that, in relation to these features in particular, the share of young consumers is high among those who never or very rarely obtain such information. The activity of young consumers in this respect is mainly influenced by the financial situation. Food product composition is mostly verified by respondents who describe their financial situation as either very good or good.

**Table 5.** Frequency of verifying selected food product features while shopping (average score)

Description	ingredients <sup>1)</sup>	calorific value	expiration date	manufacturing method <sup>2)</sup>	a kind of package <sup>3)</sup>	country of origin
Total	3.27	3.43	4.27	2.22	2.47	2.92
<b>Sex</b>						
Women	3.54	3.77	4.42	2.38	2.51	3.17
Men	2.75	2.79	3.98	1.92	2.38	2.46
<b>Place of residence</b>						
Village	3.81	3.97	4.51	2.41	2.81	3.32
Smaller city (population up to 50.000)	3.25	2.51	4.29	2.25	2.13	2.77
Medium city (population from 50.000 to 150.000)	2.46	2.92	3.97	2.23	2.38	2.39
Larger city (population of 150.000 or more)	2.67	3.12	4.17	1.83	2.52	3.11
<b>Financial situation of family</b>						
Bad	1.78	1.67	3.89	1.56	1.33	1.67
Average	2.88	3.25	4.06	2.06	2.19	2.44
All right	3.02	2.86	4.52	2.38	2.38	3.23
Very good	3.38	3.31	4.03	2.43	3.43	3.14

<sup>1)</sup> e.g. content of sweeteners, allergens, preservatives, etc.

<sup>2)</sup> e.g. large- or small-scale production, eco-friendly, bio product

<sup>3)</sup> e.g. is it returnable, biodegradable

Source: *own study*.

The research shows that young consumers from Poland's Lubuskie region know and implement the principles of sustainable consumption in a varied way. There is a large diversity observed among the surveyed consumers depending on their gender, place of residence and financial situation. The concept of sustainable consumption was most familiar to women, rural residents and people boasting a good financial situation. Interestingly, the same groups most often viewed their consumption as sustainable. Unfortunately, a significant number of respondents indicated that their level of knowledge about sustainable consumption is insufficient. They were mostly men, residents of cities up to 50 000 inhabitants, and people with a bad financial situation. In addition, there is considerable disparity in consumer behavior that is considered consistent with the principles of sustainable consumption. As far as gender, these rules appear to be followed mainly by females. Based on the place of residence, it can be observed these rules are applied to the greatest extent by residents of rural areas and cities with a population of more than 150 000. On the other hand, the biggest driver influencing consumer behavior seems to be the financial situation. The striving towards waste minimization is most frequently used by people with a bad financial situation. The principle of buying local goods (produced close to the place of residence) is most often applied by people with an average financial situation. Meanwhile, the remaining two principles – namely, "choosing food products in biodegradable packaging, easy to process, accessible, etc." and "choosing unprocessed / least processed food products" – are most often followed by people with a very good financial situation. Purchasing organic food products, i.e. those that subscribe

to the concept of sustainable consumption, was voiced primarily by female respondents, rural residents and those with a very good financial situation. In addition, consumers too rarely verify information about the product, its features or the method of production at the pre-purchase stage. It is women, rural residents and people assessing their financial situation as either very good or good who are most likely to engage in such behavior.

## 5. Conclusions

In the light of the conducted research, the unfavorable situation in terms of sustainable behavior among young consumers in the process of satisfying nutrition needs should be pointed out. The basis for rationalizing consumer behavior in this area is the knowledge of the principles of sustainable consumption. The results of the research have demonstrated an unsatisfactory level of knowledge of young consumers in this area. Research has shown that young consumers' consumption behavior based on the principle of sustainable consumption is relatively rare. Relatively most often they make purchases balanced in terms of the amount of purchased products. In addition, they quite often purchase unprocessed or low-processed products. Such behavior is important from the point of view of economic and biological rationality. Taking into account the social criterion of rationality, it should be emphasized that the purchase of food products in biodegradable packaging and locally produced goods is of little importance to young consumers. Furthermore, young consumers' willingness to read information regarding product features (method of production, type of packaging, country of origin) is insufficient. Prior to making a purchase, relatively few young consumers verify the important characteristics of the product, in particular the way these are obtained, the type of packaging they use or which country they are from. Although still to a limited extent, young consumers are slightly more interested in product ingredients and calorific value. Young consumers purchase organic products irregularly. To summarize, the overall assessment of the degree of sustainable behavior in the area of food consumption is unsatisfactory. What is more, the degree of implementation of the principles of sustainable consumption by young consumers from the Lubuskie province is correlated with variables such as gender, place of residence and financial situation. Most frequently, these principles are reflected in the behavior of women, residents of rural areas, and people with a very good financial situation.

The proper was preceded by a pilot study with a view to verifying the measurement tool and eliminating any existing irregularities. Cronbach's  $\alpha$  was used to assess the correctness of the research tool. Having said that, the completed research has certain limitations. A significant limitation also arises from the adopted sampling technique, and namely the fact that it was not representative. Too small number of the examined population. Such proceedings were primarily determined by financial and organizational possibilities. Therefore, the results should be related to the surveyed population and it cannot be assumed that they represent the opinions of the entire young population of consumers. In the future, it would be valuable to increase the territorial scope of the research and adopt random sampling. During the research, new questions emerged that would require further exploration, especially in the face of permanent evolution of behavior in the era of civilization changes.

The conclusions drawn from the presented study should not be considered exhaustive, but they may provide a helpful point of reference for further discussion on the development of research and analysis on the attitudes and behavior of young consumers towards the concept of sustainable consumption.

**Acknowledgements:** The article was developed as part of the implementation of a research project co-financed by the Marshal's Office of Lubuskie Province in the framework of the competition *Small Grants for Public Universities from Lubuskie Province*.

## References

- Azzurra, A., Massimiliano, A., Angela, M. (2019). Measuring sustainable food consumption: A case study on organic food. *Sustainable Production and Consumption*, 17, 95-107. <https://doi.org/10.1016/j.spc.2018.09.007>
- Barska, A., Wojciechowska-Solis, J., Wyrwa, J., Jędrzejczak-Gas, J. (2023). Practical Implications of the Millennial Generation's Consumer Behaviour in the Food Market. *International Journal of Environmental Research and Public Health*, 20(3), 2341. <https://doi.org/10.3390/ijerph20032341>
- Chu, M., Anders, S., Deng, Q., Contador, C.A., Cisternas, F., Caine, C., Zhu, Y., Yang, S., Hu, B., Liu, Z., Tse, L.A., Lam, H-M. (2023). The future of sustainable food consumption in China. *Food and Energy Security*, 12(2), e405. <https://doi.org/10.1002/fes3.405>
- Diaconeasa, M-C., Popescu, G., Maehle, N., Nelgen, S., Capitello, R. (2022). Media Discourse on Sustainable Consumption in Europe. *Environmental Communication*, 16(3), 352-370. <https://doi.org/10.1080/17524032.2021.1999295>
- Dimitrova, T., Ilieva, I., Angelova, M. (2022). Exploring Factors Affecting Sustainable Consumption Behaviour. *Administrative Sciences*, 12(4), 155. <https://doi.org/10.3390/admsci12040155>
- FAO (2010). Sustainable Diets and Biodiversity Directions and Solutions for Policy, Research and Action, Burlingame, B., Dernin, S. (eds.). *Proceedings of the International Scientific Symposium Biodiversity and Sustainable Diets United Against Hunger*. <https://www.fao.org/3/i3004e/i3004e.pdf>. Accessed 15/06/2023.
- Gan, P., Er, J.C., Chow, K., Er, B., Chan, J.S.H., Li, A., Aung, K.T. (2022). Consumption Patterns of Processed Foods in Singapore – A Cross-Sectional Study. *Foods*, 11, 2782. <https://doi.org/10.3390/foods11182782>
- García-Oliveira, P., Fraga-Corral, M., Pereira, A.G., Prieto, M.A., Simal-Gandara, J. (2022). Solutions for the sustainability of the food production and consumption system. *Critical Reviews in Food Science and Nutrition*, 62(7), 1765-1781. <https://doi.org/10.1080/10408398.2020.1847028>
- Grzege, U. (2021). Sustainable consumption in macroeconomic approach in Poland. *Ekonomia i Prawo. Economics and Law*, 20(3), 529-541. <https://doi.org/10.12775/EiP.2021.032>
- Gulbicka, B. (2009). *Problemy żywienia w krajach rozwijających się*. Warszawa: Instytut Ekonomiki Rolnictwa i Gospodarki Żywnościowej.
- Halicka, E., Kaczorowska, J., Szczybyło, A. (2019). Zrównoważona konsumpcja żywności w wiejskich gospodarstwach domowych z dziećmi. *Wiś i Rolnictwo*, 1(182), 45-61. <https://doi.org/10.53098/wir012019/03>
- Hoek, A.C., Malekpour, S., Raven, R., Court, E., Byrne, E. (2021). Towards environmentally sustainable food systems: decision-making factors in sustainable food production and consumption. *Sustainable Production and Consumption*, 26, 610-626. <https://doi.org/10.1016/j.spc.2020.12.009>
- Holotová, M., Horská, E., Nagyová, Ľ. (2021). Changing Patterns of Sustainable Food Consumption Regarding Environmental and Social Impact-Insights From Slovakia. *Frontiers in Sustainable Food Systems*, 5, 703827. <https://doi.org/10.3389/fsufs.2021.703827>
- Kabir, M.R. (2023). A longitudinal study on organic food continuance behavior of Generation Y and Generation Z: can health consciousness moderate the decision?. *Young Consumers*, 24(5), 513-539 <https://doi.org/10.1108/YC-09-2022-1606>
- Kaczorowska, J., Rejman, K., Nosarzewska, J. (2018). Postrzeganie produktów żywnościowych oznaczonych certyfikatami spełniającymi ideę zrównoważonej konsumpcji. *Handel Wewnętrzny*, 2, 222-234.

- Kieźel, E. (2020). Zrównoważone zachowania konsumentów w sferze spożycia i ich racjonalność. In: Smyczek, S. (ed.), *Zrównoważona konsumpcja w polskich gospodarstwach domowych – postawy, zachowania, determinanty* (pp. 121-145). Katowice: Wydawnictwo Uniwersytetu Ekonomicznego w Katowicach.
- Lubowiecki-Vikuk, A., Dąbrowska, A., Machnik, A. (2021). Responsible consumer and lifestyle: Sustainability insights. *Sustainable Production and Consumption*, 25, 91-101. <https://doi.org/10.1016/j.spc.2020.08.007>
- Maciejewski, G. (2020). Konsumenti wobec zrównoważonej konsumpcji żywności. *Marketing Instytucji Naukowych i Badawczych*, 2(36), 19-30. <https://doi.org/10.2478/minib-2020-0014>
- Moore-Berg, S.L., Briggs, J.C., Karpinski, A. (2019). Predicting incidental and focal food consumption behaviors. *British Food Journal*, 121(7), 1508-1520. <https://doi.org/10.1108/BFJ-09-2018-0588>
- Pena-Cerezo, M.A., Artaraz-Minon, M., Tejedor-Nunez, J. (2019). Analysis of the Consciousness of University Undergraduates for Sustainable Consumption. *Sustainability*, 11(17), 4597. <https://doi.org/10.3390/su11174597>
- Piligrimienė, Ž., Žukauskaitė, A., Korzilius, H., Banytė, J., Dovalienė, A. (2020). Internal and External Determinants of Consumer Engagement in Sustainable Consumption. *Sustainability*, 12(4), 1349. <https://doi.org/10.3390/su12041349>
- Promsivapallop, P., Kannaovakun, P. (2019). Destination food image dimensions and their effects on food preference and consumption. *Journal of Destination Marketing & Management*, 11, 89-100. <https://doi.org/10.1016/j.jdmm.2018.12.003>
- Quoquab, F., Mohammad, J. (2020). A Review of Sustainable Consumption (2000 to 2020): What We Know and What We Need to Know. *Journal of Global Marketing*, 33(5), 305-334. <https://doi.org/10.1080/08911762.2020.1811441>
- Saari, U.A., Damberg, S., Frömbing, L., Ringle, C.M. (2021). Sustainable consumption behavior of Europeans: The influence of environmental knowledge and risk perception on environmental concern and behavioral intention. *Ecological Economics*, 189, 107155. <https://doi.org/10.1016/j.ecolecon.2021.107155>
- Sagan, A. (2004). *Badania marketingowe. Podstawowe kierunki*. Kraków: Wydawnictwo Akademii Ekonomicznej w Krakowie.
- Salimath, M.S., Chandna, V. (2021). Sustainable consumption and growth: Examining complementary perspectives. *Management Decision*, 59(6), 1228-1248. <https://doi.org/10.1108/MD-12-2016-0934>
- Skawińska, E., Zalewski, R.I., Wyrwa, J. (2023). Students' Food Consumption Behavior during COVID-19 Lockdown. *Sustainability*, 15, 9449. <https://doi.org/10.3390/su15129449>
- Śmiechowska, M. (2015). Zrównoważona konsumpcja a marnotrawstwo żywności. *Annales Academiae Medicae Gedanensis*, 45(1), 79-87.
- Smyczek, S. (2020). Postawy konsumentów wobec koncepcji zrównoważonej konsumpcji. In: Smyczek, S. (ed.), *Zrównoważona konsumpcja w polskich gospodarstwach domowych – postawy, zachowania, determinanty* (pp. 204-221). Katowice: Wydawnictwo Uniwersytetu Ekonomicznego w Katowicach.
- Sobocińska, M. (2022). Processes of Modernization of Consumption in Poland in the Context of the Sustainable Consumption and the Functioning of the Renewable Energy Market. *Energies*, 15, 289. <https://doi.org/10.3390/en15010289>
- Sumaedi, S., Sumardjo (2020). A model of traditional functional food consumption behaviour. *British Food Journal*, 123(1), 13-30. <https://doi.org/10.1108/BFJ-01-2020-0019>
- Szwacka-Mokrzycka, J., Rívza, B., Lemanowicz, M., Uljanova, E. (2021). *A study on consumer behaviour in the food market Eastern European countries case*. Warsaw: Warsaw University of Life Sciences Press. [https://www.icif.sggw.pl/wp-content/uploads/2021/12/Szwacka\\_Rivza\\_Lemanowicz\\_Uljanova.pdf](https://www.icif.sggw.pl/wp-content/uploads/2021/12/Szwacka_Rivza_Lemanowicz_Uljanova.pdf). Accessed 28/10/2023.
- United Nation (2015). *Transforming our World: The 2030 Agenda for Sustainable Development*. <https://sdgs.un.org/2030agenda>. Accessed 30/05/2023.
- Vargas-Merino, J.A., Rios-Lama, C.A., Panez-Bendezú, M.H. (2023). Sustainable Consumption: Conceptualization and Characterization of the Complexity of “Being” a Sustainable Consumer – A Systematic Review of the Scientific Literature. *Sustainability*, 15, 8401. <https://doi.org/10.3390/su15108401>
- Vermeir, I., Verbeke, W. (2008). Sustainable food consumption among young adults in Belgium: Theory of planned behaviour and the role of confidence and values. *Ecological Economics*, 64(3), 542-553. <https://doi.org/10.1016/j.ecolecon.2007.03.007>

- Vermeir, I., Weijters, B., De Houwer, J., Geuens, M., Slabbinck, H., Spruyt, A., Van Kerckhove, A., Van Lippevelde, W., De Steur, H., Verbeke, W. (2020). Environmentally sustainable food consumption: A review and research agenda from a goal-directed perspective. *Frontiers in Psychology*, 11, 1603. <https://doi.org/10.3389/fpsyg.2020.01603>
- Wang, C., Ghadimi, P., Lim, M.K., Tseng, M-L. (2019). A literature review of sustainable consumption and production: A comparative analysis in developed and developing economies. *Journal of Cleaner Production*, 206, 741-754. <https://doi.org/10.1016/j.jclepro.2018.09.172>
- Zalega, T. (2019). Sustainable Consumption in Consumer Behaviour of Young Polish Consumers. *Studia Ekonomiczne/ Uniwersytet Ekonomiczny w Katowicach. Zarządzanie*, 383(19), 82-107.
- Ziesemer, F., Hüttel, A., Balderjahn, I. (2021). Young People as Drivers or Inhibitors of the Sustainability Movement: The Case of Anti-Consumption. *Journal of Consumer Policy*, 44, 427-453. <https://doi.org/10.1007/s10603-021-09489-x>
- Zralek, J. (2018). *Konsument wobec wyzwań zrównoważonej konsumpcji. Zrównoważone zachowania konsumenckie i ich determinanty*. Katowice: Wydawnictwo Uniwersytetu Ekonomicznego w Katowicach.