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## Sustainable Development as a Factor Differentiating Consumer Behavior: The Case of Poland

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### **Abstract:**

**Purpose:** The aim of the paper is to diagnose consumer behavior in the context of the sustainable development concept and to answer the question to what extent this concept differentiates consumer behavior.

**Design/Methodology/Approach:** The conducted analysis was based on the authors' original empirical research. The research was conducted in November 2020 on a sample of 1,045 adult consumers from all over Poland. The study employed the online survey technique. In order to determine the types of consumers, 18 diagnostic variables characterizing consumer behavior in the context of sustainable development, including sustainable consumption, were used. The type extraction was carried out in two steps. The first was a cluster analysis conducted with the hierarchical Ward method with the square of the Euclidean distance, and the second was a non-hierarchical cluster analysis adopting the k-means method.

**Findings:** As a result of the conducted analyses, four relatively homogeneous types of consumers were distinguished based on their behaviors that fit into the concept of sustainable development, including consumption. The types are: Apologists, Hedonists, Active when necessary, Moderately involved.

**Practical Implications:** The types of consumers identified and described in the paper may constitute the basis for market segmentation for firms offering consumer goods and services. In addition, the presented results of research conducted in Poland may constitute the basis for carrying out similar research in other European countries.

**Originality/value:** In the case of Poland, there is a lack of knowledge about the types of consumers as regards their behavior in the context of sustainable development, including sustainable consumption, it can therefore be assumed that the research results contribute to the theory of consumer behavior.

**Keywords:** Sustainable development, sustainable consumption, consumer behavior, typology, cluster analysis.

**JEL classification:** C38, D19, E21, Q01, Q56.

**Paper Type:** Research study.

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## **1. Introduction**

The concept of sustainable development can be analyzed in three interrelated dimensions, economic, social, and ecological (Lélé, 1991; Dhahri and Omri, 2018). In economic terms, it relates to GDP growth, which will provide an appropriate amount of goods and services; in social terms, it relates to the improvement of the quality of life, and in particular to meeting social needs, in ecological terms, it relates to the improvement of the condition of the natural environment, preservation of natural capital, and protection of biodiversity. Sustainable development is conditioned by ecological space, and through the assumed synergy of economic, environmental and social aspects, it is safe and beneficial for people, the environment, and the economy. Sustainable development is also a way of life that gives the possibility of choosing the forms of consumption. It can also be described as a specific trend, because the consumer associates an ecological product with something safe and healthy, with something modern (Janoś-Kresło, 2006). It can be assumed that a sustainable level of consumption is such a level when material goods and services are consumed sufficiently to meet basic needs and achieve a higher quality of life, minimizing the consumption of natural resources, environmentally harmful materials, arising at all stages of production, without limiting rights of subsequent generations to such consumption (Kolny, 2021).

Satisfying basic human needs (and not desires related to satisfying whims) and then putting quality of life over material conditions are entrenched in the idea of sustainable consumption. Then, this idea also embraces minimizing the consumption of natural resources, the production of waste and pollution, taking into account the life cycle of products (their impact on the environment, both in the production and disposal processes) and taking all actions with future generations in mind (Małysa-Kaletka, 2018). While discussing sustainable consumption, voluntary simplicity, also known as minimalism, should be mentioned, meaning that the consumer restricts material consumption in order to free money and time resources, as well as to seek satisfaction through the non-material aspects of life. The economical use of things may be ascribed to repair and modernization of the things used, self-supply (e.g., sewing clothes, making preserves), buying second-hand things, free exchange of things with other consumers and sharing things. Waste management comes down to waste segregation, use of ecological packaging, and purchasing sustainable products means purchasing energy-saving and ecological products (Zrałek, 2018).

The implementation of the sustainable consumption concept is possible provided that consumers make choices that account for the needs of other people and the protection of the natural environment (Maciejewski, 2020). Sustainable consumption does not mean consuming less, but in a different way, more effective way, to improve the quality of life. Taking into account the behavior of consumers in line with the concept of sustainable development, including sustainable consumption, an attempt can be made to distinguish consumer types along with their individual distinctive characteristics. The typology results from a multivariate analysis as well

as specific research techniques and analysis of consumer attitudes toward sustainable development, including consumption. Distinguishing the types of consumers, determining the characteristics that describe these types and determining their number provides possibilities for potential application. Such knowledge is important from the point of view of the market activity of enterprises.

The aim of the paper is to examine consumer behavior that may be a consequence of their specific attitudes toward sustainable development, including sustainable consumption. As a result, a typology of consumers was carried out in terms of their behavior. We asked the following research questions (RQ):

*RQ1: Does the idea of sustainable development differentiate consumer behavior?*

*RQ2: What types of consumers can be distinguished in terms of their declared behavior in line with the idea of sustainable development?*

*RQ3: What are the characteristics of consumers of the identified types and how numerous are these groups?*

The paper presents the literature review of the studies related to sustainable development and consumption, then describes the adopted research approach, including the survey methods and the data used. It ends with the discussion of the results and provides the final conclusions.

## **2. Literature Review**

At the end of the 1980s, the Brundtland Commission published its report, *Our Common Future*, in an effort to link the issues of economic development and environmental stability. This report provided the concept of sustainable socio-economic development. It can be defined as a “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Brundtland, 1987). Sustainability is now a well-defined concept implemented on a global macro-scale as well as a meso and micro-scale. Hence sustainable development concept is supported by the Sustainable Development Goals 2030 adopted by the UN in 2015 (former Millennium Development Goals), included in the 2030 Agenda for Sustainable Development – (United Nations, 2021). The program defines 17 goals divided into 169 specific targets to be achieved by UN member states by the end of 2030. They focus on five areas (5xP): people, peace, partnership, prosperity, and planet.

In terms of the numerous socio-economic changes resulting from digital transformation sped up by COVID-19 and being a consequence of the implementation of the sustainable development concept, we can see changes, e.g., in the nature of the consumption of goods and in customer attitudes and behavior. The sustainable development philosophy aims at limiting overconsumption and excessive utilization of resources, especially non-renewable ones (Kucia *et al.*, 2021).

At the moment, from the point of view of micro-scale, the focus is right now on a well-defined sustainable consumption concept. Sustainable consumption is consumption that simultaneously optimizes the environmental, social, and economic consequences of consumption in order to meet the needs of both current and future generations (Luchs *et al.*, 2011). It is beyond dispute that sustainable consumption is desirable, important, and necessary but there is an ever-present and widely acknowledged gap between articulated positive attitudes toward sustainability and people's actual (mostly unsustainable) consumption behavior (Prothero *et al.*, 2011).

However, the responsible consumer knows that material goods are not the most important indicator of the quality of life and defies materialism and consumerism (that is, excessive accumulation of material goods without any perception of the ecological, social, and individual consequences of such actions), and represents the counter stance of anti-consumerism (Jastrzębska, 2017). Hence, for the success of the idea of sustainable development, today's customer must be perceived as the most important external resource of the firm, who co-creates the market offer, and through social media, initiates and deepens relationships with other customers, together with others becoming a reviewer and even a creator of activities undertaken by the firm. They are full of passion and energy emanating "consumer power" for the concept of sustainable development.

Therefore, as Lewandowska *et al.* (2018) noted "consumer power," if directed correctly, could be able to make a "construction" by insignificant increments and to constitute a basis for conditioning the imperative of sustainability in everyday life. In this context, a vital question is what "everyday sustainability" means. Sustainability itself is a complex and multicomponent concept founded on the assumption that meeting human needs and achieving economic development should be made by ensuring a balance between economic, social, and environmental systems (Lewandowska *et al.*, 2018).

Over the past 30 years, many empirical studies have aimed at describing the typology of consumer attitudes to sustainable development. Typology studies differ in many respects, the consumption context (Maciejewski *et al.*, 2020; Moschis *et al.*, 2020; McGarry and Higgins, 2017), the sustainability focus (e.g., ethical consumption, lifestyle of health, Lin, 2020; Miczyńska-Kowalska, 2020; Matharu, Jain, and Kamboj, 2020), the dimensionality of the sustainable consumption concept (one or multiple dimensions), the focal sustainability facet (e.g., environmentally friendly consumption), the segmentation variables (e.g., attitudes, personal traits, human values), the profiling attributes (socioeconomic variables), the segmentation structure (segments reflecting either different low-to-high levels of general sustainability concern or mirroring a multifaceted consumption phenomenon) and the relationships of the segments to (actual) buying behavior (Balderjahn, *et al.*, 2018; Anjam, *et al.*, 2020). Finally, not at all sharing economy should be treated as a "potential new pathway to sustainability" (Heinrichs, 2013; Wang and Yu, 2021).

### **3. Materials and Methods**

#### **3.1 Sample and Data Collection**

The source basis for the empirical part of the paper is the direct research carried out within the “Behavior of market entities in the era of sustainable development” project, implemented at the Department of Market and Consumption of the EU in Katowice in 2020-2021 and funded by the Ministry of Education and Science. One of the research areas covered by the project concerned consumer behavior in line with the concept of sustainable development and sustainable consumption. These studies were performed adopting the survey method with the online survey technique employing the Ariadna Nationwide Research Panel (Ariadna, 2021). The research tool was a survey questionnaire consisting of 14 substantive questions and demographic questions. The substantive questions have been formulated in the form of ordinal, bipolar, five and seven-point scales and in the form of cafeteria closed questions and open-ended questions. The reliability of the scales used was assessed by calculating the Cronbach’s alpha coefficient for them and assuming the acceptable level of the coefficient at  $0.7 < \alpha < 0.9$  – as proposed by Nunnally and Bernstein (Henson, 2001), the scales used in the study can be considered as reliable.

The substantive questions were strictly subordinated to the research objectives and were used to identify the attitudes and behavior of consumers. The demographic questions made it possible to describe the individuals that entered the sample on the basis of their demographic, economic, and social characteristics. The research was completed in November 2020, therefore, it took into account the determinants of purchasing and consumption behaviors caused by the COVID-19 pandemic. Before the actual tests, pilot tests were carried out in order to eliminate potential errors of the research tool.

Consumers from all over Poland, registered in the Ariadna Nationwide Research Panel, were invited to participate in the research. Adults who were active on the market in the roles of a buyer and a consumer were qualified for the sample. The selection of respondents for the research was non-random: quota in terms of gender and proportional in terms of age and place of residence. The decision to choose a non-random selection for the sample was primarily determined by the lack of an appropriate sampling frame. The online survey technique was selected due to the restrictions in interpersonal contacts existing during the pandemic, which made it difficult for the researcher to approach the respondent directly. As a result of the conducted research and after formal verification of the obtained research material, 1,045 fully correctly completed questionnaires were qualified for the analysis. The realized research sample gives results with a measurement error of no more than 3%, with a confidence level of 0.95. The sample was slightly dominated by women, who constituted just more than 53% of the respondents. In terms of age, the respondents almost equally represented four generations of consumers: Z (18-24 years old), Y (25-39 years old), X (40-59 years old), and Baby Boomers (60-80 years old). The

average age of the respondents was 42.5 years, the median was 40, and the dominant was 24. The youngest respondent was 18 years old – the oldest was 80 years old. The respondents most often had secondary and higher education (47.1% and 41% respectively).

Almost every fourth respondent lived in rural areas, the rest came from cities of various sizes, most often from cities with more than 200,000 inhabitants. The respondents represented various households. They were most often 2-person (30.2%), 3- and 4-person households (23.3% and 20.4% respectively). Single-person households (12.7%) and 5- and more-person households (13.4%) were relatively less numerous. The median of people in the surveyed households, similar to the average value, was 3 persons. The survey participants, when asked about the assessment of the financial situation of their household, most often admitted that it was average or good (43.3% and 40.3% respectively). A bad or very bad situation was declared by 12.8%, while a very good situation was declared by 3.6% of the respondents (Table 1).

**Table 1.** Characteristics of the studied sample (N=1,045)

Item		No. of observations	% of observations
Gender	Female	558	53.4
	Male	487	46.6
Age	18-24	252	24.1
	25-39	269	24.8
	40-59	266	25.5
	60-80	268	25.6
Education	Basic	28	2.7
	Basic vocational	97	9.3
	Secondary	492	47.1
	Higher	428	41.0
No. of persons in household	1	133	12.7
	2	316	30.2
	3	244	23.3
	4	213	20.4
	5-persons and more	139	13.4
Subjective assessment of the financial situation of own household	Very bad	33	3.2
	bad	100	9.6
	Average	453	43.3
	Good	421	40.3
	Very good	38	3.6
Place of residence by no of inhabitants	Rural area	245	23.4
	City up to 50 K	233	22.3
	City from 50 to 200 K	243	23.3
	City over 200 K	324	31.0

*Source: Own study.*

### 3.2 Measures

The typology employed 18 diagnostic variables related to consumer behavior that fit into the concept of sustainable development, including the concept of sustainable

consumption (Table 3). They formed a five-point ordinal scale, where the number 1 meant the answer “never” and the number 5 meant the answer “always.” Cronbach’s alpha was 0.899, which proves a very good level of reliability of the scale used. Cluster analysis (CA) was adopted to distinguish relatively homogeneous groups (types) of consumers in terms of their attitude to sustainable development and consumption. CA numerous applications in market and marketing research are mentioned, among others, by Kettenring (2006). Work on the described typologies was carried out according to three stages proposed by Kusińska (Maciejewski, 2019):

- Stage I – adopting the typology criteria, i.e., selecting a set of diagnostic variables on the basis of which the typology will be carried out.
- Stage II – delimitation, i.e., grouping consumers according to the adopted diagnostic criterion, using cluster analysis.
- Stage III – assessment and verification of the obtained results and development of profiles of the identified clusters, taking into account active and descriptive variables (social, economic, and demographic characteristics).

The diagnostic variables mentioned above were used to conduct the typology. The types of consumers were distinguished in two steps. The first step was the Ward (hierarchical) cluster analysis applied with the square of the Euclidean distance, the second step was the non-hierarchical k-means cluster analysis. The use of both methods results from methodological limitations (Murtagh and Legendre, 2014). Non-hierarchical analysis is less sensitive to abnormal observations and incorrect variables, providing better results.

However, it requires specifying the target number of separate groups of units, which is not predetermined. To obtain this information, a hierarchical cluster analysis should be used first (Köhn and Hubert, 2014). The analysis of the agglomeration coefficient and the dendrogram obtained by means of the Ward stratified analysis led to the selection of four types of consumers (cut-off point 10). After conducting non-hierarchical analysis, their centroids (centers of gravity) were finally determined and each object was assigned to the group whose centroid was closest to it (Everitt *et al.*, 2011), then the distinguished types were given subjective names that best reflect the behavioral characteristics of the surveyed consumers assigned to given types. All calculations were carried out with the use of IBM SPSS Statistics 27 software.

#### **4. Results**

As a result of the conducted analyses, four relatively homogeneous types of consumers were distinguished in terms of their attitude to sustainable development, including sustainable consumption. The size of the types (the number of observations in each type) and their names are presented in Table 2.

**Table 2.** *Types of consumers by behavior in the conditions of sustainable development and consumption (N = 1,045)*

Type	Name	No. of observations	% of observations
I	Apologists	315	30.1
II	Hedonists	84	8.1
III	Active when necessary	386	36.9
IV	Moderately involved	260	24.9
Significant		1,045	100.0
Limitations		0	0.0

*Source: Own study.*

The first group identified (type I) included consumers who, among the distinguished groups, most often declared behaviors supporting the idea of sustainable development and sustainable consumption (although the level of this support varies). Almost every respondent in this group declares saving resources (water, gas, energy), protecting the environment, sorting waste, and taking care of recycling. People from the first cluster also try not to waste food and limit its consumption.

Moreover, they are the most generous of all types of consumers to those in need. Not only do they declare financial support for them, but also nearly 90% vote in elections for individuals and political parties whose programs support the vulnerable, the poor, or are concerned about the natural environment – Table 3. Type I consumers could therefore be described as “apologists of sustainable development and sustainable consumption.” In the collected sample, they constitute the second largest group of respondents (30.1%) – Table 2.

On the other hand, consumers who belong to the second group (type II) could be assigned to the other end of the spectrum. In contrast to apologists, this type of all consumers the least frequently gets involved in activities aimed at achieving the goals of sustainable development and reducing excessive consumption. They do not also engage in any aid actions, nor do they belong to organizations working for the protection of the environment or supporting the vulnerable and the poor – Table 3. The fate of other people and the entire planet seems to be indifferent to them. Hedonists focused on themselves, as we could call this type of consumers, constitute the least numerous group of respondents (8.1%) – Table 2.

Type III consumers on the commitment and sustainability axis are at the center. In the case of all analyzed variables, they most often gave the answers “from time to time” among the identified types of consumers (Table 3). Therefore, these consumers are not opposed to sustainable development and limiting excessive consumption, but for various reasons, they are not always involved in activities aimed at environmental protection and deconsumption. In the studied sample, consumers from cluster III constitute the most numerous group of respondents (36.9%) – Table 2. They could be described as “active when necessary.”

**Table 3.** *Characteristics of consumers by behavior under conditions of sustainable development and consumption (N = 1,045, in%)*

Items	Responses	Consumer types			
		I	II	III	IV
I get involved in social aid campaigns such as "Christmas Package"	yes	35.3	-	10.0	2.8
	from time to time	55.9	8.3	72.7	36.8
	no	8.8	91.7	17.3	60.4
I get involved in volunteering and helping other people	yes	14.0	1.2	12.2	1.6
	from time to time	51.4	2.4	70.4	33.6
	no	40.4	96.2	17.4	64.8
I work for the protection of the natural environment	yes	47.9	1.2	8.5	3.6
	from time to time	46.7	3.6	73.0	32.6
	no	5.4	95.2	18.5	63.8
I am active in organizations that support the goals of sustainable development	yes	27.3	-	8.1	-
	from time to time	34.6	1.2	64.6	5.7
	no	38.1	98.8	27.3	94.3
I install ecological systems in my household	yes	44.1	1.2	10.4	7.8
	from time to time	30.2	6.0	65.8	19.4
	no	25.7	95.8	23.8	72.8
I buy goods and services from firms concerned about the environment	yes	66.7	1.2	15.0	21.2
	from time to time	32.7	31.0	78.1	67.4
	no	0.6	67.8	6.9	11.4
I buy second-hand clothes and other goods	yes	48.3	9.5	11.2	14.8
	from time to time	44.1	26.2	74.6	56.0
	no	7.6	64.3	14.3	29.2
I repair or have broken appliances, furniture, etc. repaired.	yes	76.5	14.3	13.4	39.4
	from time to time	20.6	33.3	77.7	48.2
	no	2.9	52.4	8.9	12.4
I donate items that are still good and unnecessary for me to aid organizations	yes	83.5	2.4	14.6	43.0
	from time to time	15.2	15.5	75.4	42.0
	no	1.3	82.1	10.0	15.0
I save electricity and gas	yes	95.9	23.8	17.6	85.5
	from time to time	4.1	39.3	76.2	13.2
	no	-	36.9	6.2	1.3
I save water	yes	97.5	27.3	22.3	89.7
	from time to time	2.5	38.1	73.8	9.3
	no	-	34.6	3.9	1.0
I act in such a way as not to litter the environment	yes	99.7	41.7	33.0	97.9
	from time to time	0.3	33.3	63.1	1.8
	no	0.0	25.0	3.9	0.3
I promote a healthy lifestyle in my surroundings	yes	88.6	10.8	14.6	50.2
	from time to time	10.8	26.2	76.5	40.2
	no	0.6	63.1	8.8	9.5
I sort waste and take care of its recycling	yes	96.8	48.8	35.0	92.4
	from time to time	2.9	23.8	59.2	6.7
	no	0.3	27.4	5.8	0.9
I try not to waste food	yes	99.1	55.9	39.2	99.5
	from time to time	0.6	23.8	55.8	0.5
	no	0.3	20.2	5.0	-
I try to limit consumption by making informed purchases of really needed	yes	97.8	33.3	25.8	87.2
	from time to time	2.2	39.3	67.3	12.2
	no	-	27.4	6.9	0.6

goods and services					
In the elections, I vote for individuals declaring support for the vulnerable and poorer social groups or concern for the natural environment	yes	88.9	6.0	20.0	59.3
	from time to time	10.2	35.7	71.9	31.1
	no	0.9	58.3	8.1	9.6
I support various types of aid organizations with financial donations	yes	75.6	1.2	19.6	33.2
	from time to time	21.3	25.0	70.4	48.1
	no	3.1	78.8	10.0	18.7

**Note:** The respondents marked their answers on a five-point scale, where 5 meant always and 1 – never. The “yes” category was created by combining always (5) and almost always (4) responses, while the “no” category was created by combining never (1) and almost never (2) responses. The responses marked with 3 created the “from time to time” category.

**Source:** Own study.

The last of the identified types of consumers is the third largest group of respondents. Every fourth respondent belongs to it (Table 2). They engage in activities aimed at sustainable development and consumption much more often than hedonists and active when necessary, but clearly less often than apologists – it is especially visible where personal involvement is required of them: volunteering and helping other people, social campaigns such as “Christmas Package,” participation in organizations concerned about environmental protection and supporting the goals of sustainable development. Clearly less often than apologists, they support various types of aid organizations with cash donations, or vote for individuals, political parties that declare support for the vulnerable and the poor, or care for the natural environment. On the other hand, at almost the same level as apologists, they take care of recycling and sorting waste, try not to waste food, litter the environment, and save resources – Table 3. Type IV consumers could be described as “moderately involved in the idea of sustainable development and sustainable consumption.”

The respondents classified as different types of consumers can be described more clearly thanks to their demographic and social characteristics – Table 4. So, apologists are more often women than men. They are people from the X generation, i.e., now 40-59 years old, declaring a good or very good financial situation and have higher education. Hedonists, on the other hand, are much more often men than women, the millennials, usually representing 4-person households, living in rural areas and small towns up to 50,000 residents. Among all the identified types, the youngest respondents – people of the Z generation can be found most often among those who are active when necessary – they are the respondents who declared a non-satisfactory financial situation and live in medium-sized cities (from 50,000 to 200,000 inhabitants).

Active when necessary are more often people with lower education, representing households of 5 or more persons than people clustered in other consumer groups. On the other hand, moderately involved are more often the oldest respondents, representing the Baby Boomers generation than people associated with other types

of consumers. Perhaps, therefore, this characteristic should be seen as the reasons for engaging in activities for sustainable development and sustainable consumption only in situations of great importance? Moderately involved are also people representing less numerous households (one, two or three persons), living in the largest cities, with more than 200,000 inhabitants – Table 4.

**Table 4.** *Socio-demographic and economic characteristics of the distinguished types of consumers (N = 1,045, in%)*

Items		Consumer types			
		I	II	III	IV
Consumers by gender	Female	64.8	31.0	45.8	54.1
	Male	35.2	69.0	54.2	45.9
Consumers by age	18-24	19.0	31.0	37.3	17.9
	25-39	20.3	38.1	31.5	21.0
	40-59	30.2	23.8	20.4	25.4
	60-80	30.5	7.1	10.8	35.8
Households by number of persons	1	11.4	19.0	10.0	14.2
	2	31.4	21.4	23.1	36.0
	3	22.2	22.6	23.5	24.4
	4	21.0	27.4	24.6	15.5
	5 and more	14.0	9.6	18.8	9.9
Households by subjective assessment of their own financial situation	Non-satisfactory	43.8	57.2	65.0	59.9
	Satisfactory	56.2	42.8	35.0	40.1
Households by place of residence	Rural area	23.5	27.4	23.5	22.5
	City up to 50 K	22.9	25.0	21.2	22.0
	City from 50 to 200 K	24.1	17.9	25.0	22.5
	City over 200 K	29.4	29.8	30.4	32.9
Consumers by education level	Basic and basic vocational	7.6	15.5	18.1	10.6
	Secondary	46.3	42.9	50.0	46.6
	Higher	46.0	41.7	31.9	42.7

*Source: Own study.*

## 5. Summary and Conclusions

The typology of consumer behavior in relation to sustainable development was based on direct research carried out using the online survey technique (Ariadna Nationwide Research Panel, 2021). The substantive questions were formulated in the form of ordinal, bipolar, five and seven-point scales as well as in the form of cafeteria closed questions and open-ended questions. The typology employed 18 diagnostic variables characterizing consumer behavior related to the idea of sustainable development.

Direct research enabled the statement that the idea of sustainable development differentiates consumer behavior (RQ1). The research results show differences both in the area of actions taken by consumers and their intensity. Taking into account their scope and frequency, it was possible to create a typology of consumer behavior

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in terms of sustainable development. On the basis of the research results, four types of consumers were distinguished based on their declared behaviors complying with the idea of sustainable development in its various areas (RQ2, RQ3).

The most numerous type of consumers are the so-called “Active when necessary” (nearly 37%) declaring undertaking many of the considered activities consistent with sustainable development – most often “from time to time.” Their activity primarily relates to caring for the natural environment, preventing waste, saving resources, and caring for the public health. Just over 30% of the respondents are “apologists.” The areas of their activities are similar to those of “active when necessary,” but they participate with much greater frequency, which allows them to be considered as consumers most in line with the idea of sustainable development. Additionally, they support individuals/institutions taking actions for sustainable development.

Almost every fourth respondent belongs to the “moderately engaged” type. Those declaring the affinity to this type focus on their own and other people’s well-being – especially by taking actions to prevent over-consumption (efficient use of resources) as well as wasting and littering the planet. This type is represented mainly by the oldest people (60-80 years old) and those who assess their financial situation as non-satisfactory.

“Hedonists” seem to be a challenge for entities promoting the idea of sustainable development. They are the least numerous type of consumers (slightly over 8%). Most of their declared behavior does not comply with the idea of sustainable development, although they undertake a number of activities to help others. “Hedonists” are mainly males and young people (18-39 years old) who represent households with a non-satisfactory financial situation. The four separate types of consumers are significantly differentiated in socio-economic and demographic terms. Thanks to our research and the statistical analysis of the data, we were able to answer our research questions, thus contribute to the literature and offer a number of practical and social implications.

Taking into account the significance of the sustainable development concept, the results of our research constitute an important implication for economic practice, which should increasingly intensify activities supporting sustainable development and more actively encourage consumers to engage in activities promoting this concept. The research results can be used to develop consumer awareness about behaviors that favor the well-being of humans and their environment in the context of potential changes in these behaviors and increasing their frequency. The conducted typology of consumers can also be used by governmental and non-governmental organizations to promote the idea of sustainable development (both among entrepreneurs and consumers).

The authors of the paper are aware of the limitations of their research. Conducting research employing the Internet questionnaire technique, despite numerous advantages, is burdened with declarative responses of the respondents (no observation of the respondents, limited possibility of using projection techniques). Although the sample was relatively large, increasing it could reduce the statistical error. The pandemic under which the research was carried out might also have had an impact on the results, which could have influenced the claims of the respondents. The authors encourage other researchers to compare their results with this work and to discuss the problems related to the field research. We strongly believe that this case study from Poland can be the inspiration for other national and international research connected with consumer typology and sustainable development.

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