

THE IMPORTANCE OF SUSTAINABLE PACKAGING FEATURES OF FOOD PRODUCTS IN THE PROCESS OF CONSUMERS' PURCHASING DECISIONS

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Purpose: The main objective of the study is to determine the importance of sustainable food packaging features in the consumer purchasing process, taking into account differences due to selected demographic characteristics of the respondents.

Design/methodology/approach: The article uses the method of critical analysis of literature, comparative method, survey, analysis, synthesis and method of logical inference.

Findings: The sustainable features of food packaging were identified. Based on the analysis of the answers obtained through a survey, it was determined whether and to what extent, individual sustainable aspects of food packaging are considered and how they influence the purchasing decisions of selected group of consumers. The research has shown that, in the case of survey participants, packaging features consistent with the concept of sustainable development, are important in the opinion of the respondents, when making purchasing decisions regarding food products.

Research limitations/implications: The research was conducted on a limited group of respondents who were students (both full-time and part-time students), which had a significant impact on the age structure of the respondents. Also, the research method (online survey) could have influenced the structure of respondents, which makes it impossible to conclude the entire population of consumers in Poland. Moreover, as usual in this type of research, the conclusions were based only on respondents' declarations. In addition - the study used a non-statistically verified questionnaire (in terms of validity and reliability).

Practical implications: The research results can be used by food producers to make decisions regarding the selection and design of sustainable packaging. They point to sustainable packaging features that are important to buyers when making purchasing decisions.

Social implications: The content presented in this article may contribute to raising public awareness of the features of food packaging related to sustainable development.

Originality/value: The results of the survey confirm that consumers (especially young ones) do take into account the sustainability of food packaging, although there are some differences with regard to both some characteristics of the respondents and the attributes of the packaging itself.

Keywords: sustainable development, packaging, food products, sustainable consumption.

Category of the paper: Research paper.

1. Introduction

Sustainable consumption is one of the conditions for a sustainable transformation of the economy. Consumers, or more precisely, their purchasing decisions, play a key role here. In the purchasing process, consumers must choose a product that best meets their expectations, which in the case of a responsible and conscious buyer, will not be limited to the functionality or price of purchased product. That will include its features related to sustainable development, regarding such issues as: the impact of the product and its creation process on society and the environment (Belz, Peattie, 2012).

According to marketing assumptions, packaging is an important element of the product. Its importance is not limited to protecting the product against the influence of external factors and the environment against the influence of the product, but it also serves as a specific communication tool - it is an information carrier and a promotional instrument (Kotler, Keller, 2012; Michalski, 2017). Considering this, it can be assumed that packaging and its features may be a factor influencing consumer decisions. This is an important issue from the point of view of the idea of sustainable consumption, because it means that packaging has potential, through its features and the associated message, to shape responsible purchasing behavior among consumers (Belz, Peattie, 2012; Emery, 2012; Mazurowska, Płoska, 2022). However, this is possible provided that consumers pay attention to the features of packaging relating to the principles of sustainable development.

The main research problem is: do consumers take into account the sustainable features of packaging when purchasing food products?

An additional research problem is: which features of food packaging related to sustainable development are the most important in the purchasing process, and which are the least important?

The main objective of the study is to determine the importance of sustainable food packaging features in the consumer purchasing process, taking into account differences due to selected demographic characteristics of the respondents.

This article is a research and the following research methods were used for its purposes: of the critical analysis of the literature, comparative method, survey, analysis, synthesis and method of logical inference. The literature review was carried out in the period October-

December 2023, using the EDS (EBSCO Discovery Service) scientific search engine, allowing for an integrated search of the e-collections and online catalog of the University of Gdańsk Library, and the Google Scholar database. The analysis of sources was based on publications in English or Polish, scientifically reviewed and available in full-text version. The survey was conducted in December 2023 on a group of 326 people who were students of Tricity universities - both full-time and part-time. The study used a survey questionnaire, which was available online to respondents.

2. Sustainable consumption and sustainable consumer purchasing decisions

Consumption is a multidimensional phenomenon that can be considered on various levels (Borowska et al., 2020, pp. 19-28; Iwasiński, 2014). It is undoubtedly an integral part of both the lives of individuals and society.

Recently, many studies on consumption have addressed the problem of negative trends related to consumption, such as consumerism, often identified with excessive consumption, or hedonistic consumption (Bylok, 2016; Wasilik, 2014). In turn, Halina Jastrzębska-Smolaga (2000, pp. 15-17) uses the concept of non-durable consumption, which she describes as the consumption of goods with a high, broadly understood production cost, the production of "anti-goods" (waste) and as selfish action. This is an obvious reference to the negative consequences of consumption, especially in the ecological dimension. All these phenomena occurring in the sphere of consumption have in common the induction of various negative effects that may concern: the individual, especially in the area of his mental and physical well-being; society, including social relations and human rights; the natural environment, both in the context of the use of natural resources and the generation of waste and pollution.

Sustainable consumption is indicated as a remedy for problems related to negative and sometimes even pathological phenomena in the sphere of consumption and the effects they entail. The beginnings of the modern public debate on sustainable consumption are associated with the UN Conference on Environment and Development, known as the Earth Summit, in Rio de Janeiro in 1992. Chapter IV of the then adopted Agenda 21 (UN, 1992) was devoted to changes in consumption patterns. It is worth emphasizing, however, that considerations about consumption, especially in the context of excessive consumption of resources, have a much longer history - their roots reach back to ancient times and have returned in subsequent centuries (Jackson, 2007). The issue of sustainable consumption and related sustainable production was returned during subsequent international initiatives devoted to sustainable development. The belief in the need to introduce changes to existing consumption models was also reflected in the shape of the Sustainable Development Goals adopted in 2015. Goal 12: Sustainable consumption and production refer directly to this issue (UN, 2015).

The most frequently cited definition of sustainable consumption is the one developed during the Round Table on Sustainable Production and Consumption in Oslo in 1994. According to it, sustainable consumption consists of: “the use of services and related products, which respond to basic needs and bring a better quality of life while minimizing the use of natural resources and toxic materials as well as the emissions of waste and pollutants over the life cycle of the service or product so as not to jeopardize the needs of further generations” (UN, n.d.). A very similar, although slightly shorter, definition is that found in OECD studies, in which sustainable consumption is defined as the consumption of goods and services that meet basic needs and improve the quality of life, while not limiting the ability of future generations to meet their needs (OECD, 2002, p. 16). Józefa Kramer (2011) emphasizes that sustainable consumption includes many practices (social, economic and political) that must be implemented at various levels (individual, household, community, business environment, government).

In the literature, there is a distinction between poor and strong consumption sustainability. Poor consumption sustainability, also known as mainstream sustainability, assumes primarily increasing its rationality and efficiency, especially in the context of resource consumption. At the same time, it does not postulate limiting consumption itself and even allows for its further increase. Strong consumption sustainability refers to the need to reduce the level of current consumption for the benefit of future generations (Łuczka, 2016). This last aspect fits into the concept of deconsumption, also present in the literature on the subject (e.g.: Bylok, 2017; Jasiulewicz, 2015), although it is worth noting that it appears not only in relation to actions dictated by consumers' awareness of the negative effects of consumption, but also to those resulting from other premises: uncertainty related to the economic situation of households, or the preference for the quality and durability of products over their quantity (Rachocka, 2003).

The literature on the subject also includes terms related to sustainable consumption, such as responsible consumption (e.g.: Guarín, Knorrinda, 2014; Ulusoy, 2016; Wróbel, 2017), ethical consumption (e.g.: Brown, 2018; Oh, Yoon, 2014), ecological (e.g.: Hao, Chenyue, 2021), environmental (e.g.: Peifer et al., 2016) or green (e.g.: Nair, Little, 2016; Peattie, 2010). Although the emphasis in different terms may be slightly different, the common denominator is the belief that the still dominant, traditional models of consumption should undergo a profound transformation towards models based on limiting the negative impact on the environment, the individual and society.

It is easy to notice that sustainable consumption is based on conscious and responsible behavior of both producers, who are expected to provide goods and services that take into account the requirements of sustainable development, and buyers, especially consumers. In the case of the latter, the key is to change market behavior, primarily related to the purchasing decision-making process.

The purchasing process is described as a sequence of activities related to making a decision to purchase a good or service, along with subsequent post-purchase behaviors. It can be described as a five-stage process that includes: identifying the need, collecting information about the market offer, comparing available variants of goods and services, purchasing decision and post-purchase behavior (Armstrong, Kotler, 2016, pp. 236-237). The transformation of this process towards a process consistent with the idea of sustainable consumption will mean changes at each of the indicated stages. This may involve verifying the need itself, its reality or urgency, and thus determine from the very beginning whether the purchase will take place at all. At the information collection stage, there will be a need to collect a range of information that goes beyond standard issues regarding the functionality or price of the product. This broader scope may include ethical, environmental or social issues related to the production and use of a product or service. The information collected by the consumer will then be used at the stage of selecting the product that best meets his requirements, which in the case of an informed buyer will also include expectations regarding the environmental and social impact of the product and its production process. The decision to purchase will involve not only the choice of a product, but also the place and method of purchase, which may also involve the need to take into account the ecological and social costs of such a decision. Post-purchase activities, in the case of an informed buyer, may include both the process of using the product or service itself, as well as what happens to the remains of this process (also in the form of packaging). A sustainable consumer should both consume the product responsibly (e.g. by avoiding product waste or ensuring its durability) and choose whether the remains of the product and its packaging will be recycled in some form, whether they will be disposed of and how (see: Belz, Peattie, 2012).

In the context of the purchasing process, attention is focused on the product or service and its features. However, it is impossible not to notice that many products are sold with packaging. It can therefore be assumed that its features may also be important for purchasing decisions made by the consumer.

3. The sustainable packaging features

When analyzing the literature on the issue of the impact of packaging on consumer purchasing decisions, attention should be paid to the role of packaging in the process of marketing communication with the customer. Packaging protects against destruction, damage and environmental influences (Lesiów, Foltynowicz, 2018, p. 33), ensuring the safety of the packaged product.

By attracting the consumer's attention in the purchasing process, packaging plays a large role in making purchasing decisions. In the literature, it is referred to as a "silent seller" (Dziadkiewicz, 2019, p. 126), because it helps the consumer make the right decision, constituting one of the most important factors influencing the decision to purchase a specific product (Jerzyk, 2016, p. 709). Since over 70% of purchasing decisions are made by consumers in stores, in front of product shelves, packaging is a factor that catches the customer's eye (Jerzyk, 2016, p. 709). When assessing the appearance of the packaging, consumer receives information about the product, its features, composition, properties, obtained certificates and elements that distinguish the product from the products of competing manufacturers. Thus, based on the assessment of the packaging, the customer makes a purchase decision. On this basis, it can be concluded that it is an important element in decision-making process and has a direct impact on the customer's perception of the product (Dziadkiewicz, 2019, p. 126 after: Lisińska-Kuśnierz, Ucherek, 2004; Jerzyk, 2016, p. 714).

The role of packaging is crucial in the purchasing process because it is primarily about protecting the product, maintaining its high level of quality and ensuring product differentiation on the market (Polanco et al., 2021, p. 339). The consumer decides based on the appearance of the packaging, thus evaluating the product. The packaging is therefore an attractive and encouraging element to purchase, but it also has a protective function, protecting the product against external factors. The consumer pays attention to the convenience of the packaging, the ease of its use and the possible reuse of the material from which the packaging is made (Lesiów, Foltynowicz, 2018, p. 33). Communication with the consumer through the content and appearance of the packaging is an important element of the purchasing process.

In the case of sustainable packaging, consumers look for specific features that prove the pro-ecological nature of the product. Consumer expectations regarding the consideration of issues related to sustainable development in the area of packaging influence the activities of producers (Jerzyk, 2016, p. 710), becoming an interesting area for further scientific research.

There also remain many research questions related to the identification of sustainable packaging features that will constitute an appropriate means of communicating with customers regarding the purchase of sustainable product.

When analyzing the impact of packaging on consumer purchasing decisions, the role of sustainable packaging features in food products cannot be overlooked. Modern packaging must not only attract consumers' attention and influence their purchasing decisions but also meet the requirements of sustainable development, which has become a crucial factor for environmentally conscious customers in choosing products. The features of sustainable packaging found in the literature and economic practice (Jerzyk, 2016, p. 708; Sustainable Packaging Alliance (SPA); Sustainable Packaging Coalition (SPC)), it should be noted that such packaging is characterized by the following elements and features:

- safety of use throughout the product life cycle,
- meet market criteria in terms of costs,
- are obtained, produced and transported using renewable energy,
- are recyclable,
- use recycled materials,
- are manufactured using clean technologies and best practices,
- business and social,
- are created as a result of the optimization of production,
- are the elements of a circular economy.

The five principles of sustainable packaging identified by the Sustainable Packaging Coalition (SPC) include:

1. Using SMART design as a design approach.
2. Use of recycled and renewable raw materials (preferring materials that will be biodegradable).
3. Design in accordance with the principles of recycling, reuse of materials and biodegradability.
4. Commitment to the reuse of materials and reuse of packaging (possibility of reprocessing packaging).
5. Investing in the development of recycling, composting systems, biodegradability, a system for collecting used packaging and its availability for producers and consumers.

4. The importance of sustainable packaging in the consumer purchasing process

A review of the literature on sustainable food packaging and how it functions in the context of consumer expectations and decision-making processes reveals different research directions. There are papers concentrating on package sustainability and how it impacts food quality. It also shows that higher perceptions of food quality is associated with the use of a sustainable package (Donato, Barone, Romani, 2021, p. 165). It is seen that healthy food should be packed in sustainable packaging because this would increase both consumers' likelihood of choosing healthy foods and the perceived quality of the food, with potential positive consequences for the seller image (Donato, Barone, Romani, 2021, p. 165). Package sustainability gives a consumer higher perception of food quality (Donato, Barone, Romani, 2021, pp. 162-177). Other research areas are concentrating on functions of the food packaging. The main role of packaging is perceived as related to a protection and reliability to separate the purchased food from the external environment (Cichocka, Krupa, Mantaj, 2020, p. 316). Some other studies support the idea that promoting pro-environmental packaging strategies (Piracci, Boncinelli,

Casini, 2023, p. 21), supporting sustainable packaging solutions (Piracci, Boncinelli, Casini, 2023, p. 21), intelligent and active packaging (Stoma, Dudziak, 2022, p. 1), consumer behavior towards sustainable labels (Czczotko, Górska-Warsewicz, Laskowski, 2020, p. 1) and importance of various environmental indicators on consumer purchasing decisions (Paliwoda, Matuszak-Flejszman, Ankiel, 2024, p. 1). As the literature review shows there are not so many studies focusing strictly on attributes of sustainable packaging that are significant for customers.

The authors felt it was worth reviewing the assumption accompanying, if only the publications mentioned, that at least some consumers perceive and take into account the attributes that make up sustainable packaging.

The following research hypothesis was adopted for the study: for young consumers, the features of sustainable packaging are important when making purchasing decisions concerning food products.

5. The research on consumer attitudes towards sustainable packaging

5.1. Research methodology

The survey method was used for the research, with a questionnaire serving as the research tool. The survey method allows for the collection of a large amount of data in a short period, while closed-ended questions enable data standardization, which facilitates their comparison and analysis. The questionnaire consisted of 15 closed-ended questions that provided clear answers, making subsequent quantitative analysis easier. Most of the questions were based on a Likert scale from 1 (very little impact) to 5 (very large impact), allowing for precise measurement of the extent to which sustainability issues influence the purchasing decisions of respondents. The use of the Likert scale enabled an accurate determination of how strongly respondents feel the influence of sustainability on their purchasing decisions, which allowed for an easy comparison of results across different demographic groups.

The questions were divided into thematic blocks. The first block included demographic questions such as age, gender, and place of residence, which allowed for the segmentation of respondents based on these variables. The following blocks concerned the perception of sustainability in the context of product packaging, including the influence of packaging on purchasing decisions and the extent to which respondents attribute ecological features to packaging. The questionnaire was designed to minimize respondent biases and encourage answers that reflected their true preferences.

The surveys were conducted online, allowing access to a relatively large group of respondents and resulting in a larger sample size. The use of closed-ended questions made it possible not only to determine the impact of sustainability on purchasing decisions but also to

analyze the responses in the context of various demographic groups, such as gender or place of residence, which allowed for detailed conclusions regarding differences in the perception of sustainable packaging depending on these variables.

The study was conducted among a group of 326 students from Tricity universities, both full-time and part-time students. The purposeful sample was intentionally selected, consisting of students, to gather opinions from young consumers, who are often more sensitive to ecological issues. Young people are relatively often analysed in the context of sustainable behaviour, including purchase behaviour (e.g. Ansu-Mensah, 2021; Naz et al., 2020; Robichaud, Yu, 2022).

The surveyed group of consumers was analysed with regard to selected demographic characteristics. This approach was based on the fact that there are publications that report on sustainable purchasing behaviour, taking into account criteria such as age, gender or other buyer characteristics, and assess the validity of their application (e.g. Casalegno et al., 2022; Wang et al., 2020; Witek, Kuźniar, 2021).

The chosen sample allowed for consideration of gender and geographic diversity, enhancing the value of the analysis. Additionally, students from different study modes were selected, ensuring cross-sectional representation of responses. Students are a group that will significantly shape consumer trends in the future, making their opinions important from the perspective of long-term market analysis. The student group is generally more aware of sustainability issues, allowing valuable data on ecological purchasing decisions to be obtained. The age and education level of the respondents (students) make them open to innovations, including changes in ecology and sustainability, which increases the reliability of the results. At the same time, it should be noted that students may not represent the entire consumer population, limiting the ability to generalize the results to a broader social group, especially older individuals or full-time workers.

In the research, responses from the survey were assessed on a 5-point Likert scale, where respondents indicated the importance of sustainable development in their purchasing decisions. The choice to treat values of 3 and above as significant is based on the fact that the value of 3 represents a neutral or moderate level of importance. Since this study aimed to understand positive inclinations toward sustainable development, responses with a value of 3 were considered to indicate a recognition of at least moderate importance. Additionally, values of 4 and 5 signify a greater or very high level of importance, which clearly aligns with the study's focus on measuring respondents' positive attitudes toward sustainability.

The reason values of 1 and 2 were not treated as affirmative responses is because they indicate a lesser degree of importance (minimal to low), which does not align with the study's intention of identifying significant factors influencing purchasing behavior related to sustainability. Moreover, the Likert scale does not include a "not important at all" category, ensuring that the data inherently suggest some level of importance to all respondents, thus validating the decision to focus on responses of 3 and above as impactful.

This approach allowed the research to distinguish between moderate and high importance, ultimately focusing on the responses that reflect meaningful engagement with sustainability issues.

5.2. Results of the research

The research was conducted on a group of 326 students of Tricity universities - both full-time and part-time. The surveyed group consisted of 67% women and 31% men, with 2% of respondents not wanting to answer the question about gender. Most of the participants, as many as 75%, were in the age group of 18-26. Respondents aged 27-35 made up 13%, while those aged 36-50 made up 10%. A small part of the respondents - only 2%, were between 51 and 65 years old, and none of the respondents was under 18 or over 65 years old. Due to the fact that the respondents were students, when examining purchasing decisions, it was decided that the age factor, as well as education, would not be analyzed. The respondents' place of residence also varied - 40% of them lived in cities with over 500,000 inhabitants, 21% in cities with 150,000 to 500,000 inhabitants, 17% in cities with up to 50,000 inhabitants, and 15% in the country. 7% of respondents lived in cities with a population of 50,000 to 150,000. These data represent a diverse group of students in terms of gender and place of residence, which allows for a broad analysis of various socio-economic aspects of this population.

The first question addressed to respondents was of a general nature and concerned the consideration of sustainable development issues in their purchasing decisions (Figure 1).

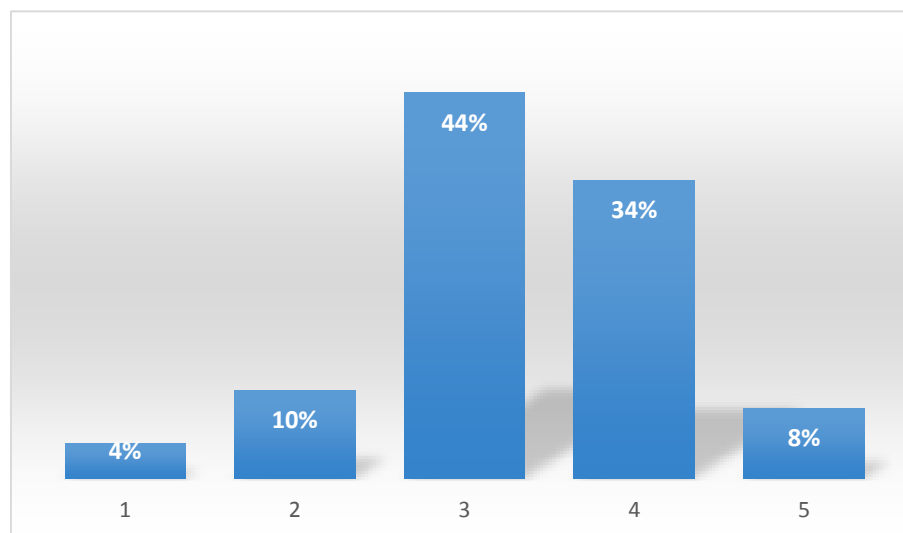


Figure 1. Structure of responses specifying the impact of sustainable development issues on their purchasing decisions declared by respondents (1 – small impact; 5 – very large impact).

Source: Own source based on conducted survey.

The analysis of the answers to the indicated question shows that the majority of respondents (78%) declare that sustainable development issues are important to them when making purchasing decisions, with 42% of respondents defining this importance as great or very great, and only 14% - as little, or completely irrelevant. This is an important tip for producers and sellers, which shows that consumers are interested in sustainable development. The factor that significantly differentiated the answers obtained in terms of the power of influence on purchasing decisions was the gender of the respondents. Figure 2 shows the structure of responses regarding the scale of impact taking into account the gender of the respondents.

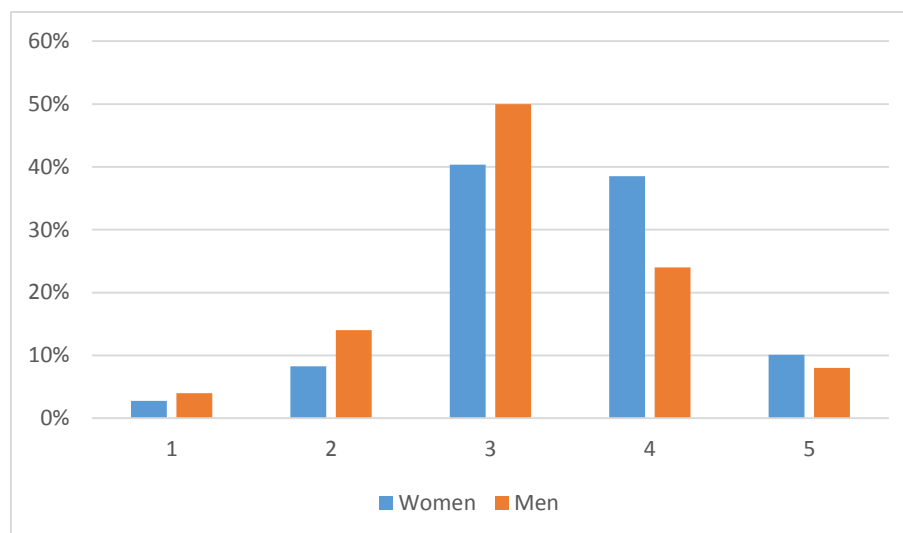


Figure 2. Structure of answers indicating the strength of the impact of sustainable development issues on respondents' purchasing decisions depending on gender (1 - small impact; 5 - very large impact).

Source: Own source based on conducted survey.

The presented results indicate that in the surveyed group, women attach more importance to the issue of sustainable development when taking into account purchasing decisions - in the structure of responses specifying the impact at levels 4 and 5, the share of women is slightly higher than that of men. The place of residence of the respondents was also a factor that significantly differentiated the surveyed population, taking into account the answers obtained regarding the impact of sustainable development issues on purchasing decisions. The structure of the obtained responses in terms of variability in this parameter is shown in Figure 3.

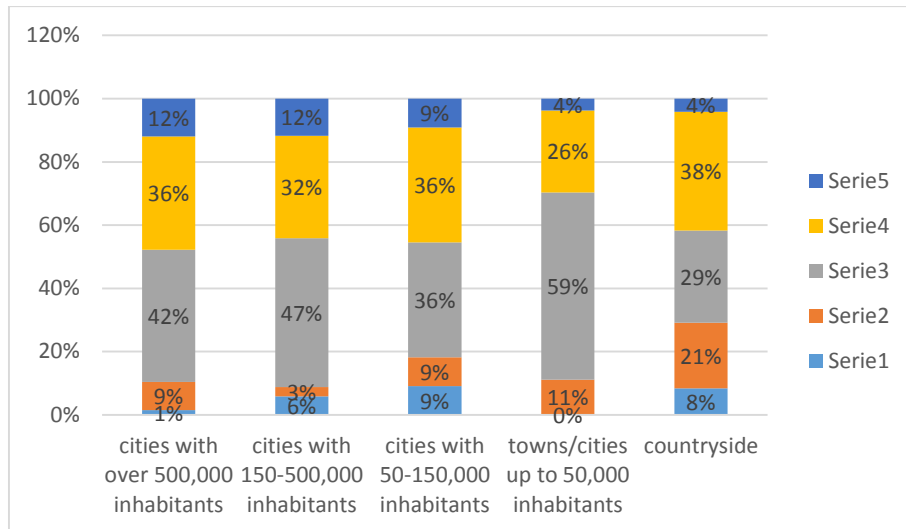


Figure 3. Structure of answers regarding the scale of importance of sustainable development issues in the context of making purchasing decisions depending on the place of residence of the respondents (serie 1 - small impact; serie 5 - large impact).

Source: Own source based on conducted survey.

In the case of residence in towns with over 50,000 inhabitants (there are three groups of communities: cities with 50-150 thousand inhabitants, cities with 150-500 thousand inhabitants and cities with over 500 thousand inhabitants), taking into account issues related to sustainable development when making decisions shopping was slightly higher among the respondents. Packaging is one of the product elements that consumers may associate with sustainable development. Figure 4 shows the results of the survey of respondents' opinions on the impact of packaging on the sustainability of the product.

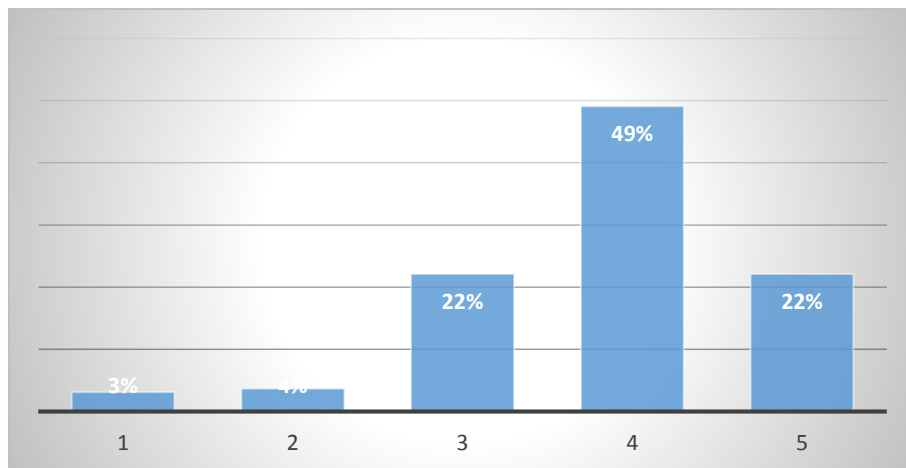


Figure 4. The impact of packaging on the sustainability of the product (scale from 1 to 5, where 1 - small impact, 5 - large impact).

Source: Own source based on conducted survey.

Over 70% of respondents indicated that the packaging of the product they buy has a significant impact on their opinion whether the product is sustainable or not. It can be concluded that, in the opinion of the respondents, the packaging significantly influences the way the product is perceived and co-determines whether it will be treated as sustainable.

The data obtained in the survey differed depending on gender and place of residence. Taking gender into account as a factor differentiating the responses obtained in terms of perceiving the product as sustainable, the results obtained are presented in Figure 5.

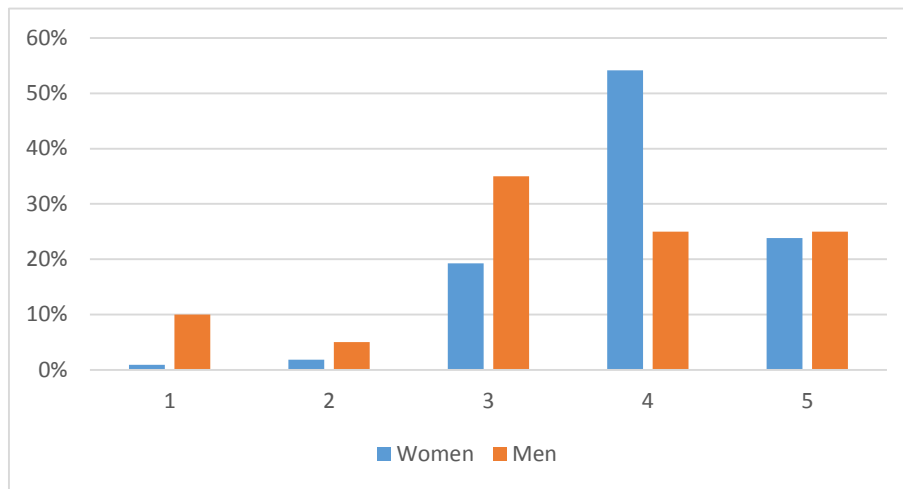


Figure 5. Structure of perception of packaging as an element influencing the sustainability of the product, taking gender of the respondents into account.

Source: Own source based on conducted survey.

In the researched group, women are much more likely to see features related to product’s sustainability in packaging. Taking place of residence into account as a factor differentiating the responses obtained in terms of perceiving the product as sustainable, the results obtained are presented in Figure 6.

Figure 6. Structure of perceiving packaging as an element influencing the sustainability of the product, taking respondents' place of residence into account.

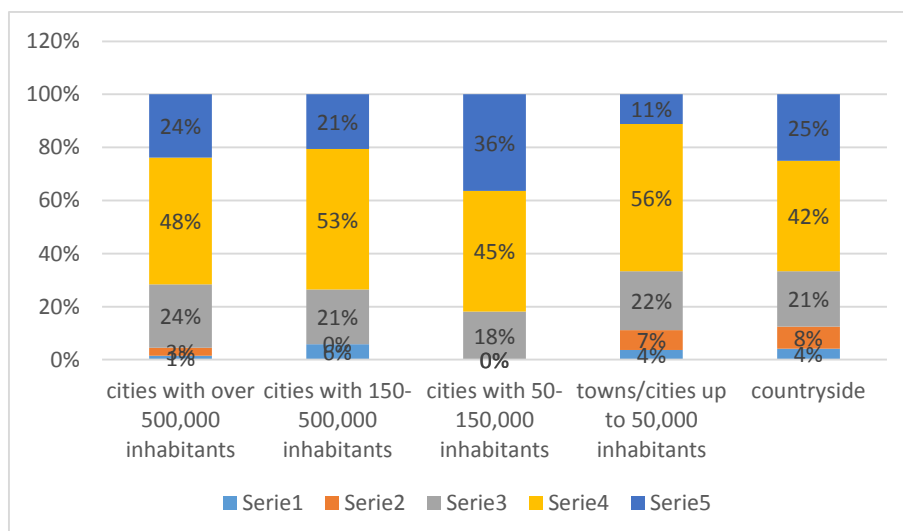


Figure 6. Structure of perceiving packaging as an element influencing the sustainability of the product, taking respondents' place of residence into account.

Source: Own source based on conducted survey.

The greatest share in perceiving packaging as an element influencing the sustainability of the product (scores 4 and 5) was demonstrated by residents of cities with 50,000 to 150,000 inhabitants (over 80% of responses from this group of residents indicated this answer). The responses of residents of cities with 150-500 thousand inhabitants and residents of cities with over 500,000 inhabitants were at a slightly lower level - for both locations, responses 4 and 5 amounted to over 72% of all responses. Packaging was the least likely to be indicated by rural residents as an element determining sustainable development (68% of all responses). It should be noted, however, that answers at levels 4 and 5 accounted for more than half of the answers obtained for all locations of residence.

The respondents indicated as key elements that they associate with sustainable packaging: the possibility of reusing the packaging (26% of responses), the possibility of recycling the packaging (26% of responses), the origin of the material from which the recycled packaging was made (25% of responses), the packaging material is environmentally friendly (25% of responses), providing mandatory information important to the customer on the packaging (25% of responses). The respondents indicated that the features that were least associated with sustainable development were: the colors of the packaging and information about the carbon footprint on the packaging (16% of responses were related to these packaging features). When making purchasing decisions, consumers take into account to the greatest extent the provision of mandatory information important to the consumer on the packaging (composition, expiry/use by date, manufacturer, etc.) - this answer was received by 25% of respondents. To a slightly lesser extent, respondents take into account three aspects related to packaging when making purchasing decisions: whether the packaging is reusable, whether the packaging is recyclable, whether the packaging material is recycled - these answers were given by 23% of respondents. When making their choice, respondents paid the least attention to information regarding the product's carbon footprint - 16% of possible indications.

Packaging of food product plays an important role in the purchasing process of consumers participating in the survey. Ecology, practicality, safety, aesthetics, information, innovation and cost are the most important features that influence purchasing decisions. Manufacturers should pay attention to these aspects to meet consumer expectations and increase the competitiveness of their products on the market.

6. Discussion

When comparing the conducted research with other studies on aspects of sustainability, certain similarities can be observed. The first similarity is the importance of sustainable packaging. In the study conducted among students from Tricity, 78% of respondents stated that sustainability issues are important to them when making purchasing decisions. Similar results

can be seen in the research by Korhonen & Sand (2020), where the majority of consumers also showed high interest in eco-friendly packaging, although no precise numerical values were provided. In the report by Feber, Lingqvist & Nordigården (2023), 39% of American consumers considered the environmental impact of packaging very important when making purchasing decisions. Meanwhile, NielsenIQ & McKinsey (2023) showed that 92% of consumers pay attention to sustainability when choosing a brand.

As for the main differences arising from the compared studies, consumer priorities when shopping stand out. In the research by Feber, Lingqvist & Nordigården (2023), it was noted that for American consumers, the most important factors in purchasing decisions are price and quality, while sustainability was perceived as less important. In the study conducted among students from Tricity, sustainability had greater significance, which may be due to higher environmental awareness among younger consumers (Feber, Lingqvist, Nordigården, 2023).

Another differentiating factor was trust in eco-labels. The NielsenIQ & McKinsey (2023) study indicates that consumers have low trust in eco-labels and have difficulty recognizing which packaging is truly sustainable. In the student survey, these issues were not addressed, but respondents focused more on practical aspects, such as the reusability of packaging.

A further difference arose from packaging material preferences. In the study by Feber, Lingqvist & Nordigården (2023), American consumers preferred packaging made from materials that are easier to recycle, such as glass or paper. In the Tricity student study, it was noted that the reusability and eco-friendliness of the material were key, but no clear preferences were indicated regarding specific materials.

In the research conducted by Cichocka, Krupa, and Mantaj (2020), respondents emphasized the importance of sustainability and eco-friendly packaging. In the study of packaging from Tricity, 78% of respondents believed that sustainability issues are important when making purchasing decisions, which is reflected in Cichocka's research, where consumer awareness of food packaging was also examined. However, the research by Cichocka, Krupa, and Mantaj focused solely on food packaging (Cichocka, 2020).

Similar research on the ecological aspects of packaging was conducted by L. Witek. In this study, the significant importance of ecological information on packaging was highlighted. In the conducted research, 25% of respondents considered information about the composition and expiration date as crucial when making purchasing decisions, which aligns with Witek's results, where consumers paid attention to eco-labels. In Witek's research, trust in eco-labels was low, and consumers felt overwhelmed by the multitude of labels. In the conducted study, this aspect was not addressed, and consumers focused more on practical features, such as the recyclability and reusability of packaging (Witek, 2017).

7. Conclusions

Sustainable features of food packaging are likely to play an increasingly important role in consumer purchasing decisions. Customer attitudes can already be observed, which indicate the importance of these features when choosing products (Anquez et al., 2022; Magnier, Schoormans, 2015; Otto et al., 2021). The research results indicate that although the surveyed consumers declare their interest in sustainable packaging, their actual impact on purchasing decisions is limited. Most respondents felt that sustainability issues had a moderate or significant impact on their purchasing decisions, but in practice other factors such as price and functionality, are often more decisive. In the case of packaging, which is an important element of the product, respondents also declared that it influences their perception of the product in the context of sustainable development. This shows the potential of packaging as a way of communicating the sustainable attributes of food products.

Therefore, it is important to continue educating the public about the importance of sustainable packaging and developing marketing strategies that effectively communicate these values. The research shows what criteria consumers use, which can help producers better understand which sustainable packaging features are most valued by consumers and that can be used in marketing strategies. This shows that manufacturers should continue and intensify their efforts to design and promote sustainable packaging. In addition, they can contribute to increasing public awareness of sustainable development by educating consumers about the benefits of choosing products in ecological packaging.

The results of the research confirm several key features of packaging of food product that are important to consumers, including:

- eco-friendliness - materials used to produce packaging should be environmentally friendly, biodegradable or recyclable. Consumers are increasingly paying attention to ensuring that packaging does not contribute to environmental pollution;
- practicality and convenience - packaging should be easy to open, close and store. The practicality of packaging is important, especially for people leading an active lifestyle who value convenience and comfort;
- safety - packaging should provide adequate protection of food products against spoilage, contamination and mechanical damage. It is important that food products remain fresh and safe to eat;
- aesthetics - the appearance of the packaging is also important because it affects the perception of the product by consumers. Aesthetic, visually attractive packaging can attract consumers' attention and influence their purchasing decisions;
- informativeness - packaging should contain clear and legible information about the product, such as composition, nutritional value, expiration date and storage instructions. Consumers value full information that helps them make informed choices.

The survey results confirm that consumers, especially young ones, do indeed consider the sustainability of food packaging, although there are some differences, both in terms of some characteristics of respondents and the characteristics of the packaging itself. Therefore, the hypothesis was confirmed. Additionally, it can be assumed, comparing the obtained results with previous research (conducted in earlier years), that the aspect of sustainable development is becoming more and more important. They can also be used by food manufacturers to make decisions about the selection and design of sustainable packaging. They point to sustainable packaging features that are important to buyers when making purchasing decisions.

At the same time, the survey provides some insight into the selected group's approach to sustainable packaging. It has a number of limitations, including due to the selection of the research group and the potential imperfection of the research instrument. However, this is in line with the current interest in this topic in the literature and may constitute a starting point for further, similar research, but covering other social groups and packaging of other product categories.

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