
Packaging as a Tool for Influencing Consumers in the Food Products Market

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Abstract:

Purpose: Consumer behavior is of interest to many scientific disciplines, resulting in a wide variety of research areas. However, the topic of the impact of packaging on consumers' purchasing decisions requires further research. This study attempts to supplement the current state of research in this area. Additionally, the aim was to formulate key recommendations for companies regarding the use of packaging in their marketing policies.

Design/Methodology/Approach: Empirical research using the survey method was conducted among residents of the Lubuskie Voivodeship. The selection of respondents was random. In the research process, 541 questionnaires were collected, 500 of which were subjected to further analysis due to correct completion.

Findings: The conducted research shows that consumers attach the greatest importance to the material from which the packaging is made when choosing packaging. As for the information on the packaging, consumers pay attention to the following: price first, followed by the list of ingredients with their nutritional value, and thirdly, the expiration date. The study also showed that if respondents have the option, more than half of the respondents choose products in eco-friendly packaging.

Practical Implications: The presented research is of great importance for practice. The article presents the impact of packaging on consumers' purchasing decisions. Additionally, it addresses attitudes towards current environmental pollution issues, showing consumers' attitudes towards eco-friendly packaging and, thus, towards environmental issues. The conclusions from the research may be significant for food producers and suppliers.

Originality/Value: The article presents the impact of packaging on consumers' food purchasing choices, which translates into the state of the natural environment. Additionally, recommendations for companies regarding the use of packaging in their marketing policies are formulated.

Keywords: Packaging, determinants, consumer behavior, eco-friendly packaging, food products, Lubuskie Voivodeship.

JEL codes: D12, D83, M30, M31.

Paper type: Research article.

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1. Introduction

Every company must make a number of decisions related to packaging, which fulfills many different functions, starting from product protection, streamlining the distribution process, or identifying and distinguishing products from the competition, through product promotion as a carrier of information and influencing customers' purchasing decisions. The latter can be of particular importance in the face of the development of self-service forms of sale.

Packaging is an important element of the entire planned process of planning new products without which products would not be finished, i.e. decisions, aimed at adapting packaging to consumer expectations and preferences, related to market segmentation and the selection of target recipients of the product, the concept of the product itself and the selection of marketing instruments (Szwacka-Salmonowicz, 1997; Grundey, 2010).

Jerzyk and Kaniewska-Sęba (2006) define packaging as “a finished product with an appropriate structure, the purpose of which is to protect the packaged product from the harmful effects of external factors or vice versa - to protect the environment from the harmful effects of the product, enabling the movement of products during storage, transport, sale and use, informing about the content, influencing the buyer thanks to the aesthetics of the solutions and providing economic values” (Jerzyk and Kaniewska-Sęba, 2006).

Wojciechowski, in turn, assumes that packaging is “a product of human work, used to protect specific objects - mainly goods produced by industry and agriculture - against damage, destruction or theft, facilitating their storage, transport and use, as well as serving as a carrier of advertising and information” (Wojciechowski, 2016).

Packaging cannot be considered in isolation from the product and the selected target segment. In the process of using packaging as a promotional tool, the quality of the information placed on it also plays an important role. The information should include, among other things (Szwacka-Salmonowicz, 1997; Ankiel *et al.*, 2020), the product and manufacturer name, brand, packaging unit size, retail price, product characteristics, usage instructions, product storage conditions at the place of consumption, quality characteristics of the product, calorie content, and other information about the product composition and allergens.

Packaging influences buyers' decisions and enhances the impact of other marketing tools in shaping their purchasing preferences. It strengthens the influence of the product itself, distribution, and promotion, while weakening the impact of price, as packaging costs are included in the product price (Mazurkiewicz, 2005). Therefore, packaging is a significant element contributing to the overall cost of the product.

An attractive package should (Mazurkiewicz, 2005; Coelho, 2020):

- Be safe for sellers and customers, ensuring the delivery of products to the buyer in an intact condition.
- Protect the product, maintaining its quality and all aroma and taste values.
- Be designed with the buyers and their preferences, tailored to their needs and expectations.
- Facilitate distribution – transport, storage, handling, and display; packaging plays an important role in safely distributing products.
- Enable buyers to choose the desired product and identify it.
- Facilitate consumption – handling, usage, dosing, and storage.
- Provide information about the product and manufacturer.
- Promote the product – through shape, color, symbolism, brand, and other features that encourage purchase, and they distinguish themselves from competitive products.
- Stimulate new customer groups to buy and encourage existing customers to make purchases.

As Kochanowski points out, in the purchasing phase, packaging must fulfill the following tasks to perform its function most effectively (Kochanowski, 2003):

- Attract consumers' attention,
- Serve as an advertising medium at the point of sale, especially in self-service stores,
- Arouse interest, leading to purchase,
- Create a positive image, influence emotions,
- Provide information,
- Evoke the desire to own the product,
- Remind consumers to purchase the product,
- Enhance customer satisfaction during product use and consumption.

It is worth noting that the educational function of packaging, through the information provided about the product's features, imparts knowledge about the products and their impact on the human body. Additionally, the ecological function of packaging plays a role in building environmental awareness.

From the consumer's perspective, packaging should be seen as a set of values for the customer (Bryła, 2020):

- Utility value, which manifests in the packaging's ability to meet the need for convenience, safety, and time-saving; packaging allows products to be transported safely,
- Prestige value, suggesting an exclusive purchase that could only be made by a specific consumer,

- Competitive value, indicating greater attractiveness of the packaging compared to others;
- Innovative value, characteristic of modern packaging that includes new competitive and technical solutions; more innovative packaging, while adhering to the principles of sustainable development, enhances the competitiveness of packaging compared to others.

As noted by Berthold, Guion, and Siegrist (2024), food product packaging is considered one of the most important factors influencing consumer perception and purchasing behavior. Mruk (2012) identifies several trends influencing the development of packaging:

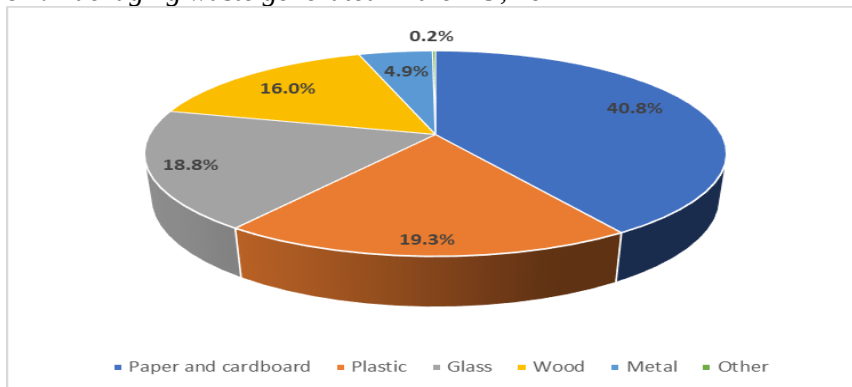
- Minimization of packaging, offering smaller product sizes,
- Convenience of use,
- Shortening the packaging life cycle,
- Increasing the importance of design in packaging,
- Designing smart packaging that supports customer needs and adapts the product to the customer,
- Adapting packaging to the requirements of sustainable development, ecology, and environmental protection,
- Differentiating packaging – from simplicity to luxury,
- Adapting bulk packaging to the needs of wholesalers and retailers.

Despite numerous studies on the impact of packaging on consumer food evaluation, especially considering factors influencing consumer perception and purchasing behavior, particularly at the point of sale, further investigation is required (Berthold *et al.*, 2024).

Food consumption is associated with packaging waste. In the EU, according to Eurostat data (Eurostat 2022), the average packaging waste per capita was 186.5 kg, with the most commonly used materials for packaging production being: paper and cardboard (40.8%), followed by plastic (19.3%), glass (18.8%), wood (16.0%), and metal (4.9%). Other materials accounted for only 0.2% of the total volume of packaging waste generated in 2022 (Eurostat 2022) (Figure 1).

The impact of packaging on the environment is large. It is therefore important to look for more sustainable packaging, or to move towards sustainable production and consumption.

Reduction, reuse, and recycling, as well as redesign, support the goals of a circular economy and are one way to reduce the environmental impact of food packaging (Geueke *et al.*, 2018). One method to lower this environmental burden is the use of eco-designed packaging (Magnier and Schoormans, 2015).

Figure 1. Packaging waste generated in the EU, 2022

Source: Eurostat 2022.

2. Research Material and Methodology and Sample Characteristics

The aim of the conducted study was to determine the impact of packaging on consumers' purchasing decisions. Additionally, the study aimed to formulate key recommendations for companies regarding the use of packaging in their marketing policies. The research was conducted among consumers in the Lubusz Voivodeship using a questionnaire survey.

The questionnaire included, firstly, demographic questions specifying gender and age, and secondly, questions regarding the impact of packaging on the decision to purchase food products. The questions were preceded by a questionnaire message explaining the purpose of the study and providing information ensuring the anonymity of the survey. The latter part included a brief questionnaire instruction containing information on how to answer the questions in the questionnaire.

Referring to the people surveyed, 500 respondents took part in the survey. 63.6% were women, and 36.4% were men. Taking into account the data on the age of the respondents, it can be seen that the largest group is made up of people aged 26-36 (23.8%). The next age groups, 47-56 (22.2%) and 37-46 (21.6%), also constitute a significant part of the respondents. The smallest group is made up of people over 56 (15.8%) and people up to 25 (16.6%). Generally, it can be seen that the study covered people with a wide age range. The structure of respondents by gender and age is shown in Table 1.

3. Research results

It is widely accepted that packaging plays a significant role in the process of purchasing food by consumers. It serves as a means of communication between the company and the consumer. In marketing literature, packaging is often referred to as a "silent salesperson" (Jerzyk and Kaniewska-Sęba, 2006) Given this, respondents

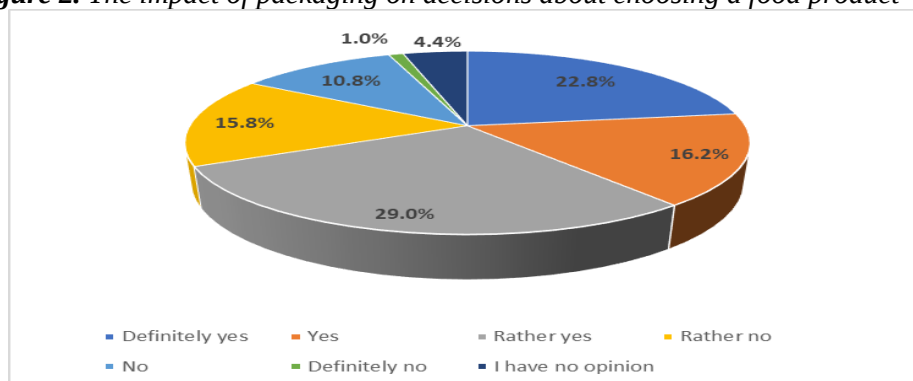
from the Lubuskie Voivodeship were asked whether packaging influences their decision to choose a food product (Figure 2).

Table 1. Characteristics of the research sample

Specification	Respondents	
	Number	Percent
Gender of Respondents		
Female	318	63.6
Male	182	36.4
Total	500	100.0
Age range		
Up to 25 years	83	16.6
26-36 years	119	23.8
37-46 years	108	21.6
47-56 years	111	22.2
Over 56 years	79	15.8
Total	500	100.0

Source: Own calculations based on conducted research.

Figure 2. The impact of packaging on decisions about choosing a food product



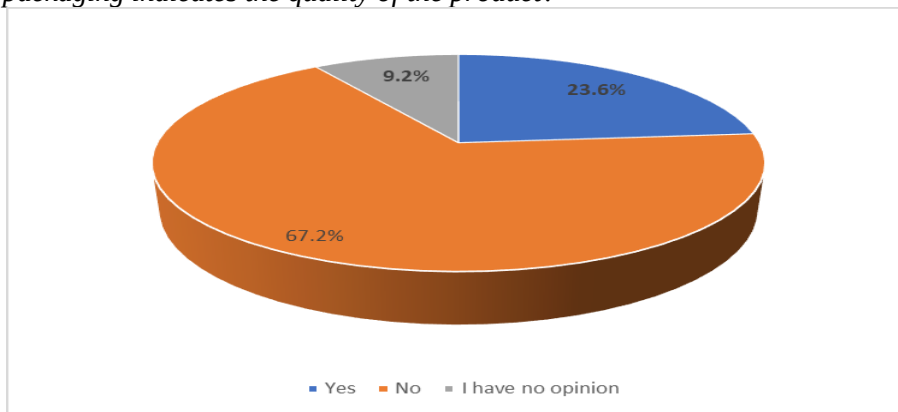
Source: Own study based on conducted research.

Most respondents (response structure: definitely yes – 22.8%, yes – 16.2%, rather yes – 29%) declared that packaging influences their purchasing decisions for food products. 4.4% of respondents did not choose any option, indicating they had no opinion on the matter. The percentage of people indicating that packaging rather does not influence their purchasing process was 15.8%. Slightly fewer indicated no influence at 10.8%. A small percentage of respondents declared definitely not (1%). Therefore, it can be concluded that, in general, packaging influences the purchasing decisions of the respondents.

Respondents were also asked whether they believe that the external appearance of the packaging indicates the quality of the product (Figure 3). It is worth noting here

that product quality means its ability to provide the satisfaction expected by the consumer, and when assessing its quality, its features are considered, the selection of which depends on the type of product and the circumstances of its use (Urban, 2018). The authors Ahmed, Parmar, and Amin (2014), noted there is no positive correlation between package quality and product quality, but it can be assumed that packaging and product quality are related.

Figure 3. Structure of the answer to the question whether the external appearance of the packaging indicates the quality of the product?



Source: Own study based on conducted research.

In the context of the obtained responses, according to 67.2% of respondents, the external appearance of the packaging does not affect the assessment of the quality of the packaged product, while 23.6% believe it does. 9.2% of respondents did not express an opinion on this matter.

Regarding the question: Do you pay attention to the content on the packaging? The majority, 40.2% of respondents, declared that they pay attention to the content on the packaging during every purchase and buy the product after reading the composition on the packaging. The responses indicate that every fifth person often reads the information on the packaging, while every fourth respondent does so occasionally. Almost 10% of people declared that they rarely use this type of information, and 3% do not use it at all, stating that they are “not interested in the content on the packaging” (Figure 4).

It is also worth looking at the respondents’ opinions regarding the answers to the question: Do you choose food products in environmentally friendly packaging? In this case, 77.4% of respondents choose packaging that does not harm the natural environment (definitely yes - 26.8%, yes - 37.8%, rather yes - 12.8%). 11% of respondents do not consider environmental factors when choosing packaging, while 11.2% of respondents did not choose any option, marking the neutral answer “neither yes nor no” (Table 2).

Figure 4. Respondents' opinions on the content placed on the packaging "Do you pay attention to the content on the packaging?"



Source: Own study based on conducted research.

Table 2. Structure of respondents' answers regarding the choice of environmentally friendly packaging

Specification	Number of responses	Response rate [%]
Definitely yes	134	26.8
Yes	189	37.8
Rather yes	64	12.8
Neither yes nor no	56	11.2
No	55	11.0
Rather no	0	0.0
Definitely no	0	0.0
No opinion	2	0.4
Total	500	100.0

Source: Own calculations based on conducted research.

In the next question, "What information on the packaging do you most often pay attention to?" respondents could choose the following information: price, country of origin, list of ingredients with their nutritional value, expiration date, storage conditions, preparation method, net weight. They could also specify other information they pay attention to in the "other (what?)" category.

Based on the data in Table 3, it can be concluded that for 82.2% of respondents, the most important information on the packaging is the price. The second most important for 64.4% of respondents was the list of ingredients with their nutritional value, and the third was the expiration date. Subsequently, respondents indicated information such as the country of origin, storage conditions, preparation method,

and net weight. One person indicated among other information the batch number, while 42 respondents noted information about the presence or absence of gluten.

Table 3. Structure of respondents' attention to information on the packaging

Responses	Number of responses	Percentage of responses [%]	Percentage of respondents [%] (n=500)*
Price	411	27.9	82.2
List of ingredients with their nutritional value	322	21.8	64.4
Expiration date	321	21.7	64.2
Country of origin	167	11.3	33.4
Storage conditions	111	7.5	22.2
Preparation method	56	3.8	11.2
Net weight	46	3.1	9.2
Other (what?)	43	2.9	8.6
Total	1477	100.0	-

Note: *The total percentage of respondents does not sum up to 100%, as respondents could choose more than one answer.

Source: Own calculations based on conducted research.

In the next question, consumers were asked about the packaging features they consider when choosing products (Table 4 and Figure 5). These features included: graphic design, material from which the packaging is made, reusability, color scheme, type of closure/ease of opening, durability, convenience of use, and size of the packaging. Respondents were asked to rate the importance of these packaging features on a five-point scale (5 – very important, 4 – important, 3 – neither important nor unimportant, 2 – unimportant, 1 – very unimportant, 0 – very weak).

Table 4. Packaging features considered by respondents

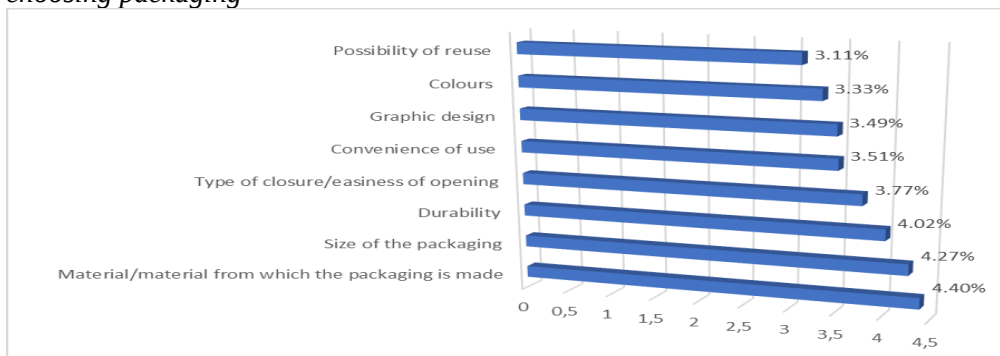
Specification	Ratings on the scale				
	1	2	3	4	5
Graphic design	41	5	176	222	56
Material from which the packaging is made	5	22	50	112	311
Reusability	81	99	56	213	51
Colours	0	120	113	201	56
Type of closure/ease of opening	62	23	0	299	116
Durability	0	0	90	312	98
Convenience of use	28	99	51	235	87
Size of the packaging	0	0	10	345	145

Source: Own calculations based on conducted research.

In the context of the obtained responses, it can be observed that for respondents, the most important factor when choosing packaging is the material from which the packaging is made – 311 people rated it as very important (5), 112 as important (4),

176 as neutral (3), while a few (5) rated it as unimportant (2), and 41 as very unimportant (1). The second most important factor was the size of the packaging, followed by durability.

Figure 5. Average strength of selection criteria considered by respondents when choosing packaging

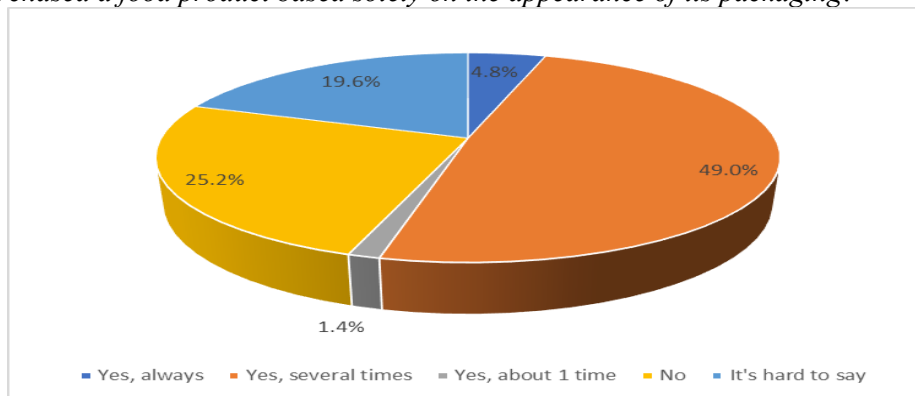


Source: Own study based on conducted research.

As shown in the data in the figure 5, the highest rated factor was the material from which the packaging is made, with an average rating of 4.40. The lowest rated factor was reusability, with an average rating of 3.11.

In light of the presented responses to the question “Have you ever purchased a food product based solely on the appearance of the packaging?” (Figure 6), every fourth respondent stated no. It is worth noting that more than half of the respondents had the opposite opinion. 4.8% of respondents declared that they always purchase food products based on the packaging. Every second respondent had made such a purchase several times, while only 1.4% had done so once. About 19.6% of respondents marked the answer “hard to say”.

Figure 6. Structure of respondents' answers to the question “Have you ever purchased a food product based solely on the appearance of its packaging?”



Source: Own study based on conducted research.

In response to the question: “Do you consider the material of the packaging with the environment in mind when choosing a food product?” respondents made the following indications (Table 5):

- Yes, if I have the option, I choose products in eco-friendly packaging—number of indications: 279;
- Eco-friendly packaging is important, but it is not my main criterion—number of indications: 123;
- The material of the packaging is not important to me – number of indications: 98.

It is worth noting that if respondents have the option, more than half choose products in eco-friendly packaging.

Table 5. *Structure of respondents' answers regarding environmental considerations when choosing packaging*

Responses	Respondents' opinions	
	Number of responses	Percent
Yes, if I have the option, I choose products in eco-friendly packaging	279	55.8
Eco-friendly packaging is important, but it is not my main criterion	123	24.6
The material from which the packaging is made is not important to me	98	19.6
Total	500	100.0

Source: *Own calculations based on conducted research.*

4. Discussion

Berthold, Guion, and Siegrist (2024) noted that products using cardboard for food packaging, compared to plastic, are perceived as more sustainable, and therefore in line with the concept of sustainable development, while food products packaged in green are associated with greater healthiness.

Arboretti and Bordignon (2016) found that attributes such as packaging material and size/shape are the most important, and biodegradable packaging, resealable trays/bags, and long shelf life are also valuable features for consumers. The results of this study confirm these findings, as it can be observed that for respondents, the most important factor when choosing packaging is the material. More than half of the respondents (55.8%) also indicated that if they have the option, they choose products in eco-friendly packaging.

Eriksson, Lingqvist, Feber, Nordigården, and Granskog (2020) found that the vast majority of respondents claim they are willing to pay more for sustainable

packaging. The authors of the study indicate that in the foodservice industry, the highest willingness to pay is in China, followed by Indonesia, the United States, and Brazil. The willingness to spend more on eco-friendly packaging in foodservice appears to be lowest in Japan and France (Eriksson *et al.*, 2020).

The results of these studies correlate with the findings presented in this study, as more than half of the respondents, nearly 56%, choose food products considering the material of the packaging with the environment in mind, while for 24% of respondents, eco-friendly packaging is important but not the main criterion for their choice.

It is crucial to understand the factors that influence packaging choices is key, and the more sustainable they become the greater the environmental awareness of consumers (Kulyk, Michałowska, 2016). This is confirmed by the present research as well as by the research of Duarte, Silva, Roza and Dias (2024) and Blasiak, Leander, Jouffray and Virdin (2021).

Understanding the factors that influence packaging choices is crucial. As consumers become more environmentally aware, their preferences shift towards sustainable options. This awareness and ecological lifestyle drives demand for eco-friendly packaging (Popovic *et al.*, 2020). It also turns out that for most respondents (67.2%), the external appearance of the packaging does not affect their assessment of the quality of the packaged product.

These observations are also confirmed by the authors Habermehl, Decker, and Menrad (2024), who noted that the reduction of plastic packaging plays a significant role in the daily lives of consumers, but the extent to which plastic packaging is avoided or reduced varies depending on the consumption sector.

5. Conclusions

Packaging is a factor influencing consumer choices regarding food products. It often plays a significant role in the purchasing process, not only by attracting attention but also by encouraging the purchase of products. Undoubtedly, ecological education, which shapes consumers' environmental awareness, is of great importance. It contributes to creating and reinforcing pro-environmental consumer attitudes towards products and packaging, which serve many functions, from protecting the product from damage and contamination to building environmental awareness.

Observing consumer behavior in the market, it can be stated that their pro-environmental choices in every aspect of life, from purchasing products to lifestyle, reflect their attitudes towards the environment and its problems, and result, among other things, from their level of environmental awareness.

Moreover, packaging can be a competitive element for companies that can reach out with their eco-friendly packaging to individuals who care about their health and the well-being of future generations. Eco-friendly packaging responds to contemporary threats related to environmental pollution.

Consumers expect high quality from food products, and this quality is inseparably linked to the quality of the packaging in which the food products are packed. Analyzing the results of conducted studies, it can be stated that consumers attach the greatest importance to the material from which the packaging is made. Regarding the information on the packaging, consumers pay attention primarily to the price, followed by the list of ingredients and their nutritional value, and the expiration date.

The conducted research indicates that the majority of consumers (55.8%) prefer products in eco-friendly packaging if they have the option. A significant portion of respondents (24.6%) consider eco-friendly packaging important, but it is not their main criterion for choice. For a smaller group (19.6%), the packaging material does not matter in their purchasing decisions. These results indicate a growing environmental awareness among consumers and the importance of eco-friendly packaging in the purchasing decision process.

In summary, packaging plays a significant role in the purchasing process, not only by attracting attention but also by encouraging the purchase of products. As noted by Kułyk, Michałowska and Roszkowska (2019) “The consumer perceives quality as the utility and emotional values acquired with the product, which provide satisfaction, while the producer sees it as the costs incurred in the production process, but also the benefits that can be obtained from the conscious choice by consumers and the possibility of distinguishing the offer in the entire market” (Kułyk *et al.*, 2019).

Therefore, packaging creates the opportunity to build a unique competitive advantage. It is important for future research to outline the key challenges in addressing plastic pollution in relation to the issue of sustainable development.

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