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## **DESIGN AND COMMUNICATION OF ECOLOGICAL CONTENT ON SUSTAINABLE PACKAGING IN THE YOUNG CONSUMERS' OPINIONS**

JEL classification: D03, D47, M39, Q56, Q59

### ***Abstract***

*Many companies today have noticed the growing sensitivity of consumers to social problems, reflected by their interest in environmental concerns, e.g. the usage of sustainable packaging materials that are eco-friendly and safe for consumers and the environment. Producers seek, often based on intuition rather than knowledge, eco-arguments for their packaging in order to affect the perceptions of buyers and influence their behaviour. Creating an effective design and content for environmental messaging on sustainable packaging may be a significant element in building a competitive advantage for both product and brand. Therefore, the main objective of this paper will be to answer the following questions: What content do consumers expect for ecological messages on packaging? Which attributes of sustainable packaging have a positive impact on consumer behaviour? In what ways are consumers' purchasing intentions based on sustainable packaging? To answer these questions the results of research conducted among Polish and French students will be presented.*

***Key words: design, sustainable packaging, marketing communication***

## 1. INTRODUCTION

In recent decades the importance of the natural environment as a determinant of corporate marketing activities has increased significantly. We are witnessing a gradual escalation in environmental threats, but also a growing concern for the environment. The problems of refuse and packaging waste, environmental degradation as a result of unreasonable human activity, the plundering of the Earth's resources, as well as the effects of global warming are increasingly evident.

Concern for the environment has led to the emergence of an environmentally friendly green trend, which is reflected in the concept of sustainable marketing (Armstrong and Kotler, 2015, p. 709). Sustainable marketing is socially responsible marketing conducted with concern for natural resources, which aims to fulfil the needs of present-day consumers as well as those of future generations. Sustainable marketing ought to be based on an efficient marketing system in which consumers and businesses work together for the good of the environment. It turns out that the idea of sustainable marketing can be supported through effective packaging communication, which influences the attitudes and the buying behaviour of consumers. Sustainable packaging is a term that is not very precisely defined and which is difficult to measure (Sonneveld, James, Fitzpatrick, et al, 2005; Lisińska-Kuśnierz, 2010, p.21). Lee and Xu, 2005). When defining sustainable packaging, researchers often refer to the criteria specified by the Sustainable Packaging Alliance (SPA) in 2002 (effective, efficient, cyclic, safe), or those developed by the Sustainable Packaging Coalition (SPC) in 2005, according to which sustainable packaging

- is beneficial and safe for individuals and communities throughout its life cycle,
- meets market criteria for both performance and cost,
- is sourced, manufactured, transported and recycled using renewable energy,
- optimises the use of renewable or recycled source materials,
- is manufactured using clean production technologies and best practices,
- is made from materials healthy throughout the life cycle,
- is physically designed to optimise materials and energy,
- is effectively recovered and utilised in biological and/or industrial closed loop cycles.

Nowadays many companies (such as Tesco, Walmart, McDonald's, Carlsberg and Unilever) try to independently define the attributes of sustainable packaging (Packaging for sustainability 2012, <http://www.unilever.pl/sustainable-living-2014/>; <http://www.o-i.com/Sustainability/>). Such individual attempts, however, tend to create ever greater confusion and discomfort among consumers, who are unable to differentiate between packaging which is sustainable and that which is not. The variety of markings and environmental messages appearing on

the packaging often produces incomprehension or even suspicion among buyers, and creative forms of packaging can be misleading and can confuse consumers in their decision-making. A minimalist packaging design often suggests organic content, and verbal messages create the impression that the manufacturer is eco-friendly. Therefore, it is becoming increasingly important for consumers that the packaging should communicate an understandable and reliable message with regard to environmental issues. On the basis of ecological symbols and messages on the packaging a customer should be able to verify the ecological attributes of both the product and the packaging. In this article the author attempts to identify the kind of environmental messages that consumers expect to find on the packaging and that could consequently inspire their greater confidence in the product and brand. In addition, the role of sustainable packaging in the buying decision process will be examined, as well as the question of whether the knowledge that packaging is sustainable is likely to alter the choice of a product.

It is assumed that a consistent and responsible use of specific eco-messages will generate confidence and positive attitudes among consumers towards such products. When a consumer trusts the environmental information on the packaging and has a favourable attitude towards it, their shopping preferences will be affected. Verifying the messages and ecological symbols used on product packaging is almost impossible from a consumer's perspective (for example, how can a consumer check whether the packaging is indeed made from recycled material?). Therefore, trust and the credibility of the message are crucial factors affecting purchase intentions.

## **2. THE ROLE OF PACKAGING IN THE BUYING DECISION PROCESS**

Packaging is a modern tool of integrated marketing. Among the many promotional tools which can be found at a point of sale, packaging remains the most important factor which influences consumers in the purchase decision process. This so-called "five-second advertising of a product" helps consumers cut through the communication noise in the shop which offers hundreds of products as well as different promotions (Kotler and Keller, 2012, p. 372). Effective packaging guarantees that the product will be noticed by the consumer, produces a purchasing intention as well as creating positive impressions and emotions. Packaging is not only a tool for effective communication, but also a source of sensations and experiences.

The development of the packaging industry was related to the spread of self-service forms of sales, which promoted the expansion and diversification of the range of products on offer. This dynamic increase in the supply of products and services was accompanied by a rapid development of tools and forms of marketing communication. Contemporary marketing communication tries to make contact with the target market in many, often surprising, places, using

creativity and originality in terms of both the form and content of the message. However, the point of sale is still the place where the effectiveness of communication is the highest. Self-service forms of retail offer spaces within which there are a variety of marketing communication tools, among them being the key role played by packaging. The advantage of packaging over other traditional tools employed by marketing communication lies in the fact that it influences consumers when they actively participate in the communication process: they are in a retail outlet, have access to a range of products, have some needs and want to satisfy them. Over 70% of buying decisions are taken right in front of the shelf, a visit to a shop lasts on average approximately 20 minutes, and a buying decision takes on average 12 seconds (Clement, 2007, pp.917-928). Hence an important role is played by packaging in that it attracts attention and communicates with the consumer at a critical point in the decision-making process, when the process is about to be finalised.

Packaging, through a combination of different elements and features, can communicate the quality, price, size and content of a product; as well as make the product noticeable and suggest its specific benefits to consumers. This combination of a set of elements and attributes for packaging is defined as the design, and which together create the image of a product and reflect its content. Packaging design includes elements relating both to the aesthetics and appearance of the packaging as well as to its functionality and overall quality (Jerzyk, 2014, pp. 391-398). Sometimes the packaging design is eco-friendly in order to emphasise the naturalness of the product or if the design process takes into account the principles of sustainable development.

The role of packaging and its environmental information is increasingly important for developing the awareness of, and influencing the behaviour of, consumers. Significant potential benefits can be generated by the green trend in the area of marketing communication through packaging (Atkinson, Rosenthal, 2014, pp. 33-44). The expectations of consumers towards packaging in terms of compliance with environmental standards are growing, and manufacturers and retailers have to respond by addressing these demands. As a result, they often quite freely create packaging communications which tend to be misleading and incomprehensible, and which do not meet the expectations of the consumers. Thus there seems to be an urgent need to regulate and control such activities. It is assumed that consumers' interest in gaining knowledge about the sustainable activities of companies and brands corresponds to their increasing sense of responsibility with regard to environmental issues (Polonsky, Bailey et al., 1998, p. 281). This growing consumer sensitivity creates new challenges for marketing communication in terms of designing the content and forms of communication.

### 3. METHODOLOGY

An auditorium questionnaire survey was conducted among 161 students, both men and women, aged between 17 and 30 years. These were mostly young consumers who declared that they made purchases for themselves and their households. The respondents were selected using a combination of purposive and random sampling. The study included respondents living in France and Poland, in order to assess to what extent environmental awareness and the knowledge of sustainable consumption and sustainable packaging is related to the level of economic development and the maturity of the market. It was assumed that better educated and younger consumers are more aware of environmental issues and that their behaviour tends to be more thoughtful and ethical in the sense that when selecting products and services they are guided not only by economic principles, but also by ecological, social and ethical ones (Dąbrowska, 2001). The study paid particular attention to the perception of sustainable packaging communication and its acceptance by the respondents; sustainable packaging design understood as a collection of features and functions (functionality, appearance, durability and guarantee of product quality); as well as the respondents' intention to purchase a product packed in sustainable packaging. The following research questions were formulated:

1. What is the role (now and in the future) of sustainable packaging in the buying decision process?
2. How do consumers perceive the design of sustainable packaging?
3. What information shown on sustainable packaging is expected by consumers and inspires their confidence?

### 4. RESULTS

Familiarity with the term “sustainable packaging” was quite moderate among these young respondents. Only 40% of the respondents stated that they had encountered and knew this term. However, large discrepancies were noted between the answers of Polish and French respondents. Only 30% of Polish but as many as 71.4% of French respondents declared having knowledge in this respect. Such responses highlight the influence of market maturity on the level of consumer awareness with regard to environmental issues.

According to the respondents, sustainable packaging is of little importance in the buying decision process (Figures 1 and 2). The average mark for this factor was only 2.49 points (on a scale from 1 to 5; with 1 meaning not important at all, and 5 meaning definitely very important). The majority of the respondents do not take this criterion into consideration at all when shopping, and those who do were mostly people of higher material status. The majority of the respondents, however, expect that the importance of this factor may increase in the long term (Figure 3). Interestingly, though, the respondents declared a

willingness to change their choice of product to one that has sustainable packaging if the messages displayed on such packaging were credible. Thus it appears that although the importance of packaging as a factor which affects shopping choices is low, consumers' trust in the messages communicated through sustainable packaging can be crucial in the buying process. Consumers' confidence in what sustainable packaging communicates can translate into a positive attitude towards the product.

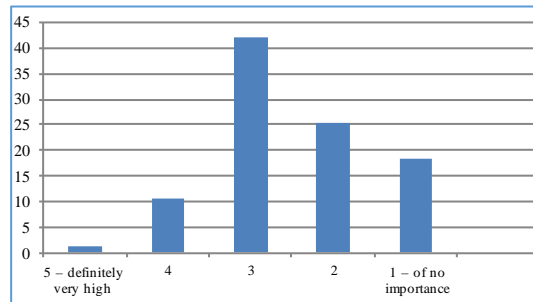


Figure 1 The role of sustainable packaging in the buying process

Source: own compilation based on survey results

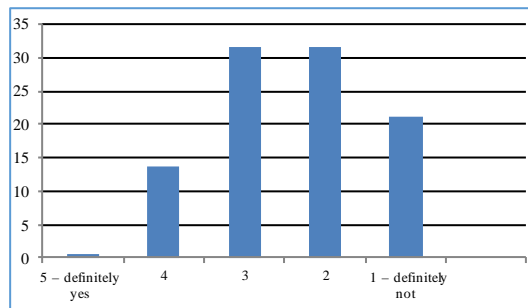


Figure 2 Do you choose products with sustainable packaging in your daily shopping?

Source: own compilation based on survey results

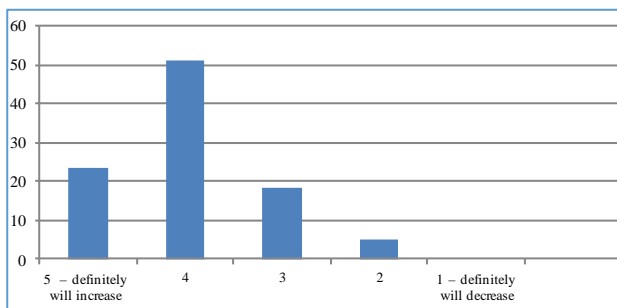


Figure 3 The role of sustainable packaging in the buying process in the future

Source: own compilation based on survey results

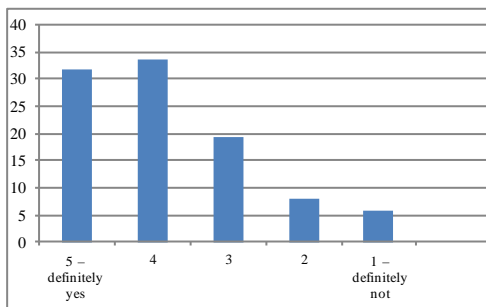


Figure 4 Would you decide to buy a different product if you knew that it had sustainable packaging?

Source: own compilation based on survey results

The next issue which was examined was the content of the messages displayed on the packaging and their credibility assessed from the perspective of consumers. The respondents were asked to evaluate eight messages that can be found on sustainable packaging. It turned out that the most desirable information from the point of view of the respondents was whether the packaging is recyclable and whether it is made of materials that are safe for the consumers' health (Table 1).

Table 1

Messages expected by consumers on sustainable packaging – mean values (on a scale from 1 to 5; where 1 means ‘not important’ and means 5 ‘definitely yes’)

Information	Total		Poland		France	
	Mean	SD	Mean	SD	Mean	SD
Recyclable	<b>4.36</b>	0.84	<b>4.34</b>	0.82	<b>4.41</b>	0.84
Made from recycled materials	4.13	0.93	4.05	0.92	<b>4.31</b>	0.94
Made from biodegradable materials	4.10	0.99	3.97	0.99	<b>4.38</b>	0.96
Made using renewable energy	3.80	1.05	3.65	1.05	4.12	0.97
Made from materials safe for human health	<b>4.27</b>	0.88	<b>4.30</b>	0.86	4.21	0.94
Made using minimal materials	3.45	1.03	3.41	1.03	3.54	1.05
Safe for individuals and communities throughout its life cycle	4.11	0.92	4.20	0.90	3.90	0.94
Designed to optimise the use of materials and energy	3.53	1.19	3.51	1.21	3.56	1.17

*Source: survey results*

The above list of messages was then aggregated to produce three variables. A factor analysis (Cronbach’s alpha was 0.824 and the KMO index was 0.816) revealed the three types of eco-messages most valued by the respondents. The first factor indicates that consumers react positively to messages relating to the recycling of packaging and to renewable energy sources. It is worth noting that the term “recycling” is widely known and is gaining more and more supporters. The second factor stresses the importance of information relating to the use of resources and the materials for packaging. The third one shows the need for consumers to have confidence with regard to information relating to their safety and health as well as the quality of the environment.

Table 2

Eco-messages expected by respondents

Information	Factors		
	1	2	3
Recyclable	0.793		
Made from recycled materials	0.864		
Made from biodegradable materials	0.859		
Made using renewable energy	0.741		
Made from materials safe for human health			0.915
Safe for individuals and communities throughout its life cycle			0.679
Made using minimal materials		0.728	
Designed to optimise the use of materials and energy		0.865	

*Source: survey results*



As part of the study the respondents were also asked what modifications to the design of sustainable packaging (inferior appearance, worse durability, shorter shelf life or inferior functionality) they would be willing to accept (Table 3). An analysis of the responses led to several conclusions. Firstly, respondents were quite reluctant to accept any changes in the design of the packaging which could decrease its quality. Secondly, when they had to select a change to the packaging which would affect them the least they indicated a deterioration in its appearance.

The young French respondents also added a shorter shelf life. However, the respondents were not prepared to accept any deterioration in the functionality of sustainable packaging.

Table 3

Consumer willingness to accept modifications to sustainable packaging which could decrease its quality – mean values (on a scale from 1 to 5; where 1 means ‘definitely not’ and 5 means ‘definitely yes’)

Modification	Total		Poland		France	
	Mean	SD	Mean	SD	Mean	SD
Inferior appearance	<b>3.34</b>	1.27	<b>3.24</b>	1.21	<b>3.56</b>	1.37
Inferior durability	2.52	1.17	2.41	1.12	2.77	1.24
Shorter shelf life	2.79	1.22	2.60	1.18	<b>3.21</b>	1.22
Inferior functionality	2.51	1.07	2.57	1.05	2.38	1.12

*Source: survey results*

## 5. CONCLUSIONS

The study showed that sustainable packaging is not an important factor in choosing which product to buy. It can be said that these results confirm the general opinion of consumers expressed in surveys about the insignificant role of packaging as a determinant of purchase. On the other hand, it is worth emphasising the importance of confidence and trust in the messages displayed on sustainable packaging. The majority of the surveyed consumers declare that they would choose a different product if they were sure that it had sustainable packaging. The information that the consumers expect to find and which would inspire their confidence relates to the recycling of the packaging, the economical use of source materials in the production of the packaging, as well as the health and safety of the consumer. Interest in recycling can result from an increasing awareness of the problem of packaging waste as well as the rising costs of its segregation and disposal which consumers must incur. Another group of messages desired by consumers related to the minimal use of resources and materials in the production of packaging. It seems, therefore, that buyers look for

information that will satisfy the need for being economical and not harming the natural environment. By choosing packaging that contains such information, consumers create an image as of themselves as people who are conscious of environmental threats and sensitive to the problems of the environment in which they live. The third group of messages which consumers are interested in are those containing information aimed directly at the consumer. Consumers express a lot of concern about marketing communication, which often does not serve their interests. Thus messages should emphasise consumer welfare, health and generally consumer protection to address the needs of today's consumers, who are wary but at the same time sensitive to environmental problems. It turns out that credibility is a key issue in creating consumer preferences. In addition, it is evident that customers are not generally willing to accept a lower quality for sustainable packaging. The easiest change to accept is a worse appearance of the packaging, while the most difficult one is a reduction in its functionality.

The effectiveness of sustainable packaging in the buying decision process can be enhanced by an appropriate content and form of communication which will promote positive attitudes among consumers and influence their purchasing intentions. The reception of this information also depends on the knowledge that consumers possess, which is connected with the maturity of the market but also with some cultural circumstances, which this study did not explore.

One limitation of the study is that it omitted the issue of the authors of the messages displayed on packaging. A lot may depend on who the message is from: the brand owner, the retailer, a government institution, a celebrity pictured on the packaging, or an independent organization. In addition, the significance of environmental messages on sustainable packaging may differ depending on the level of a consumer's involvement in the purchasing process. It could also be interesting to analyse the impact of the form of the communication, verbal and pictorial, on its effectiveness.

Finally, the studies conducted in Poland and France also indicate that the level of economic development and market maturity may significantly affect customers' needs in terms of sustainable packaging communication. Therefore further research ought to be conducted on larger samples and combined with extensive qualitative studies, which could help to better understand and interpret respondents' answers.

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