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SIGNIFICANT COMMUNICATION FACTORS FOR SUSTAINABLE PRODUCTS WITH A FOCUS ON CZECH CONSUMERS

Eva JADERNÁ – Alena SRBOVÁ

ABSTRACT:
The aim of the study is to identify the importance of partial communication factors of sustainable products for the Czech consumer. First, the data from an online survey is interpreted in the form of descriptive statistics to establish a comprehensive overview of the attitudes and preferences of Czech consumers. Second, the global envelope method is used to evaluate reactions to packaging, certificates, ingredients, in-store placement, awareness, sales in a sustainable store, higher prices, and other factors among selected target groups. Based on the results of the 2020 questionnaire survey, significant target groups were identified by frequency analysis and their responses to communication factors were monitored for apparel, drugstore and cosmetics, and food. The test results show that clearly the most important communication factor for sustainable products is the certificate, to a large extent for two categories: males 45 – 64 years old and females who are university educated.

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1 Introduction

Sustainable products are becoming an increasingly common management problem. On the one hand, managers face pressure from stakeholders to be sustainable and to produce sustainable products; on the other hand, the sale of such products is hampered by their generally higher price. Sustainable products are perceived as having minimal environmental impact, or at least less than traditional products. However, creating a product which is 100% clean is impossible (Brydges, 2021). Therefore, the question remains how a sustainable product is perceived by consumers and whether it is considered as one of the factors of greenwashing.

Marketers then reach out using a discipline called green marketing. Green marketing is a philosophy that primarily promotes sustainable development. The essence is the recognition of the importance of people's concern for a healthy environment and the effort to preferentially consume environmentally friendly products and services to consumption. Marketers themselves are now trying to use these ideas to ensure sustainable development and are using these concepts in developing their strategies (Choudhary & Gokarn, 2013).

However, some research shows that eco-friendly features of products do not play an important role in product selection. Benefits such as enjoyment, health and economic benefits hold an important role over environmental benefits (Witek, 2020). Also, green consumers evaluate more factors than just their environmental principles when purchasing a product. Price and quality are still crucial for them (Pagán Martínez et al., 2019). Moreover, the power of the media or information transfer is so strong that consumer purchasing behaviour changes based on it (Bellotti & Panzone, 2016), which ultimately affects production processes. However, most researchers focus on sustainable business without just considering the impacts of media as a channel through which consumer behaviour changes towards consumption of a particular product (Yakubu et al., 2022).

In the case of luxury products, atypical marketing communication leads to an increase in consumers' willingness to buy. This is because the consumer perceives the uniqueness of the communication strategy. The effect of perceived uniqueness is stronger for consumers with a higher continuous need for uniqueness. Greater effectiveness of a communication strategy that focuses on sustainability in the form of uniqueness and willingness to buy is inherent in luxury products (Amatulli et al., 2021).

This suggests that today's business environment challenges managers to make sustainability part of their strategic decision-making. This article focuses on how to communicate sustainability most effectively to consumers and avoid the feeling of greenwashing. Therefore, the research question was defined: "Which sustainability factor is best perceived by consumers and can be considered relevant for marketing communication?"

2 Literature Review

CSR as an Important Part of Managerial Decision-Making

Nowadays, a general opinion is that it is important to keep sustainable development in mind in all human activities. This was characterised more than 30 years ago by the World Commission on Environment and Development. Its essence is that our actions in meeting our own needs should be such that they do not compromise the needs of future generations (World Commission on Environment and Development, 1986). Simply put, that we should already be thinking now about the future generations and our descendants.

This applies not only to conservation and our relationship with nature. According to a survey conducted by Krajhanzl et al. (2018), it appears that the majority of the Czech public places emphasis on nature and environmental protection because the state of the environment affects the quality of their lives, and environmental problems have an impact on their lives. In addition, more than one-fifth of the Czech public takes an active role in nature conservation. It should also be noted that some, on the contrary, are indifferent to environmental issues.

Reporting by companies with more than 500 employees also plays an important role within the European Union, in the area of non-financial information, which includes information on environmental, social and

employment issues, and respect for human rights, among others (Directive 2014/95/EU of the European Parliament and of the Council of 22 October 2014, 2014). This obligation was fulfilled, for example, by the bank ČSOB operating in the Czech Republic (ČSOB, 2021), the prominent retailer Ahold Delhaize (Ahold Delhaize, 2021), operating in the Czech Republic through the retail chain Albert, the leading European retail and tourism group REWE Group (REWE Group, 2022) whose representatives on the Czech market are the retail chain Kaufland and Billa. Research by Pelikánová-MacGregor (2019) on 10 major Czech companies shows that these companies fulfil their legal obligations and e-report on CSR at least to a similar extent, but with varying quality.

CSR itself is characterised in the *Green book: Promoting a European framework for Corporate Social Responsibility* (Commission of the European Communities, 2001) as "a concept where companies voluntarily integrate social and environmental aspects into their business operations and interactions with their stakeholders".

According to a study by Lu et al. (2020), it was found that consumers know what CSR means and that this activity is one of the important aspects of companies. CSR initiatives themselves have a positive impact on brand loyalty and brand image, which increases the competitiveness of firms in the marketplace as well as their reputation. Reputation can be characterised as an important component of a firm that includes human capital, business processes, technology, and intangible assets, which can be collectively referred to as a firm's intellectual capital (Lentjushenkova et al., 2019).

A clearly defined purpose of CSR implementation plays an important role, which can positively contribute to appropriate CSR activities and overcome barriers that may occur during implementation. CSR activities significantly influence employee loyalty, and it is true that the greater the employee loyalty, the greater the company's performance and competitiveness (Stojanovic et al., 2020).

If a company wants to succeed in a homogenised market, it is necessary for it to strengthen its brand with, among other things, the aspect of sustainability. Important factors for a successful brand are trust, loyalty, and value (Botha et al., 2020). This is what sustainability or social responsibility can bring. A strong brand enhances a company's competitiveness in the marketplace (Beig & Nika, 2019), even more so when it is associated with sustainable aspects (Fakhrutdinova et al., 2014; Holt et al., 2004; Morgan & Pritchard, 2004). In today's world, the role of green innovation is increasing among companies. Such firms are responding to the requirement of sustainability. Increasing environmental awareness has helped create the popularity of green innovation approaches that maximally support corporate sustainability goals. Green innovation has gained international prominence and has become a major driver accelerating firms' socio-ecological practices (Li et al., 2022).

Research by Hang et al. (2022) found that there is an impact of CSR and green product innovation on firm performance. Green product innovation positively affects competitive advantage, and this mediates the relationship between CSR, green product innovation and firm performance. A similar view is also held in relation to the managerial perception of CSR and social efforts of the firm, both of which are significantly related to reputation, core values and overall organisational performance (Singh & Misra, 2020).

Consumer Behaviour and Sustainability

Sustainable products are becoming increasingly popular. Personal, social, and environmental values are the most important factors in purchasing decisions for consumers (Natural marketing institute, 2023). In the Czech Republic, this trend is also increasing (Jaderná & Ostin, 2021). Consumers expect the products they are offered to be safe and healthy, and they take into account the environment and the people who made them. Consumers are interested in receiving information about how a product was made in order to make an informed decision about whether to buy it. Consumers report that if they are given information that, for example, labour rights have been violated or unsuitable working conditions have been imposed in the production of a product, this will influence their purchasing behaviour and decision-making (Toussaint et al., 2021).

This article focuses on the interpretation of the results of a questionnaire survey that focused mainly on the sustainability of the following types of goods: clothing, pharmaceuticals and cosmetics, food.

Clothing

Sustainable fashion is most often perceived in terms of three fundamental aspects: materials, recycling, and product life cycle. Thus, new sustainable materials are addressed (Provin et al., 2021), but also the possibilities to recycle or reuse clothes (Xie et al., 2021) or sustainable aspects within the whole life cycle (Munasinghe et al., 2021).

Sustainability in clothing is important for 45% of Czech consumers, for 12% it is quite essential and only 28% of respondents consider it half and half. It is unimportant for only 15% of respondents from the sample of 1000 (Jaderná, 2022). The slow development of sustainable fashion is due to low feasibility, ignoring market drivers, poor consumer awareness, consumer culture and lack of government intervention and support (Provin et al., 2021).

For clothing, it is interesting to look at what might influence consumers who support sustainable fashion. This topic was addressed in research which was based on guided in-depth interviews with Korean designers, and the outcome was to create an effective tool for sustainable design approaches and a sustainable design method that can satisfy consumers' emotions and personal tastes. The approaches towards sustainable design perceived by these designers included "eco-friendly materials", "reuse and remanufacturing" and "functional durability design" (Kam & Yoo, 2022).

Pharmaceuticals and Cosmetics

According to Jaderná (2022), sustainability in pharmaceuticals and cosmetics is unimportant or essential for 15% of the 1,000 respondents. 43% say it is important and the remaining respondents are unsure. Green cosmetics are characterised as a multifaceted product that promotes environmental protection, pollution minimisation, responsible use of non-renewable resources and animal welfare (McEachern & McClean, 2002).

A survey of 30 UK women found that there was a predominantly neutral view of green cosmetics due to a lack of knowledge about green cosmetics. Most of the respondents prioritised price and efficacy as the most important factor in choosing cosmetics instead of the green properties of these cosmetics (Lin et al., 2018).

Food

Respondents approached in the Jaderná (2022) survey reported that more than 40% considered sustainability in food important, 26% considered it essential, and only 118 respondents out of 1,000 answered that sustainability in food was not important. In addition, people perceive sustainable products as healthy.

Today's food systems contribute to many health and environmental crises. Many are now calling for transformative or even radical changes to food systems (Baker et al., 2021). Food systems in particular are currently an important element of global environmental challenges. Also, in the case of sustainable practices, the supply side of the market meets the demand side, where every consumer can contribute to a greener food system by choosing sustainable food (Berger et al., 2020). According to Wielicka-Regulska (2020), due to long-term trends, a radical change is necessary, not only in the structure and method of food production, but also in food consumption. Consumers, as the last link in the food chain, have significant opportunities to influence the shape of agriculture and food processing. Interest in sustainable food consumption has increased compared to the last 30 years. Different countries and also regions with different levels of economic development have different views on the consumption of these foods (Shen et al., 2022).

In the case of consumer eating habits, unavailability, affordability, unhealthy diets, and lack of information still negatively condition eating habits to the detriment of more sustainable consumption (Scalvedi et al., 2018). It is good to note that, for example, in the case of organic food production (more plant-based foods) and increasing its share, land use and food costs (dietary) increase. The effect of land use could be reversed if circular economy principles were incorporated into standards for organic production, which could lead to substantial improvements in all environmental indicators (Frehner et al., 2022).

A questionnaire survey was carried out over a period of one year, from June 2019 to July 2020, in which more than 500 Chilean consumers participated. The topic of this survey was to discover the opinions (attitudes) and willingness to pay for sustainably produced wines. The results showed that 76% of the respondents had previously

purchased certified organic wines (fairtrade, organic, natural, and sustainable) and there was a clear willingness to buy certified organic wines in the future (78% of respondents) and 77% of respondents would buy sustainable wines. It was also asked how much they would be willing to pay for eco-certified wines, with 22% indicating that they would be willing to pay a premium price ranging from 5 American dollars to 16 American dollars, and for sustainable wines this was 19% of respondents (Valenzuela et al., 2022).

Communication of a Sustainable Product

An important question for any marketer is how to communicate sustainable products to avoid consumers feeling greenwashed. This article focuses on identifying the most important communication factor to Czech consumers. A questionnaire survey was conducted in 2014 with 130 female respondents from Delhi who were aged between 20 to 45 years and were educated. These women reported that the most common communication channel that influences them is word of mouth advertising (43%), followed by Internet advertising (26%), print advertising (20%), television advertising (6%) and outdoor advertising (5%). In terms of willingness to pay more for green products, only 11% of the respondents were not willing to pay more for green products and on the contrary 63% of the respondents were willing to pay 10% more for green products as compared to non-green products (Sethi, 2015).

Thus, price becomes a strong factor that influences consumption and purchasing behaviour. On the one hand, sustainable products have a higher value for consumers, but this is not always what they are willing to pay. Although various other factors are essential for them, price is often highly important despite the sustainability of the product (Toussaint et al., 2021).

Products that are packaged in green packaging are emerging on the market. These packages are characterised by a very low negative impact on the environment and on energy consumption and contain sustainable materials that are produced in an environmentally friendly way in an energy efficient manner (Auliandri et al., 2018). According to research by Wahab et al. (2021), which involved over 250 consumers in the Klang Valley (Malaysia), it was found that the acceptance of green packaging depends on personal convenience or environmental responsibility and social awareness. Similarly, individual lifestyle or support from family, friends, society, and government will motivate the adoption of green packaging.

Research by Potter et al. (2021) shows preliminary evidence that eco-labels can promote (encourage) the selection, purchase and consumption of more sustainable food and beverages. Thus, the use of labels for the marketing communication process of sustainable products is suggested. One such example is Fairtrade. The Fairtrade certification mark is the most widely used and also one of the best-known ethical marks in the world and is particularly visible for agricultural commodities such as coffee, tea, sugar, cocoa and tropical fruits. The main aim of the organisation and the certificate is to ensure fair trade, terms of trade and a fair purchase price for developing country growers who may be under pressure from large multinational companies or affected by unfair international trade settings. Companies offering such labelled products should comply with the aforementioned principles of fair trade and price, decent working conditions, environmental protection and equality. According to official data, 52% of consumers in the Czech Republic have experienced this certificate (13% more than in 2011) (Fairtrade, n. d.).

It is interesting to see how consumers from different countries view Fairtrade certification. Research by Petrescu et al. (2022) found that Fairtrade belongs to the environmental-social factor for Belgians, while Romanians include it in the credibility and origin (quality label) factor. We can therefore say that the Fairtrade label conveys trust to the Romanians, while for the Belgians it conveys environmental and social characteristics.

However, it is not just the Fairtrade label. The Czech market offers products with other certificates linked to sustainability. In the context of the research, this was the BIO certificate, which indicates organic products that have been produced in a way that is environmentally, animal and plant friendly. In most cases, these are foods also referred to as organic products. Products that meet the conditions for organic growing, breeding and production are labelled with the national BIO logo in the Czech environment. Certification is granted by the Ministry of Agriculture according to the provisions of the Organic Agriculture Act No. 242/2000 Coll. and also according to Council Regulation No. 2092/1991. For this reason, Czech organic products must also be labelled with the European label.

The granting of the certificate is conditional on growing without added artificial substances and fertilisers, and on rearing animals in as natural an environment as possible without the use of hormonal preparations. It is also a condition that the products are processed without the use of dyes, flavourings, and artificial substances (Ministry of Agriculture of the Czech Republic, n. d.).

Another certification is ENERGY STAR. This is an international certificate that labels mainly electronic products that are energy efficient and characterised by reduced electricity consumption. For both consumers and manufacturers, this label is a guarantee of quality, credibility, and environmental friendliness. It is the most globally recognised proof of the energy efficiency of products. Consumers can see the ENERGY STAR logo on computer equipment, household appliances, light bulbs and even buildings. The main requirement is that the product must be approximately 30% more energy efficient than the standards (Energy Star, n. d.).

The last certificate examined is the EU Ecolabel certificate. This is a European, and even globally recognised, certificate that is awarded to products or services that adhere to set European environmental standards throughout their life cycle, from the sourcing and processing of raw materials, through production and distribution, to disposal. The criteria for obtaining the EU Ecolabel also motivate manufacturers to develop new products that are durable, easily repairable and recyclable. At the same time, the criteria and standards of the certificate help companies to transition and adapt to more environmentally friendly practices (European Commission, n. d.).

The following Table 1 summarises the purchase of certified products by Czech consumers. The table shows that products with the organic label are the most purchased on the Czech market.

Table 1: Purchase of certified products by Czech consumers

Which certified products do you buy?	Relative frequency
Ecolabel	6%
ENERGY STAR	2%
Fairtrade	17%
BIO	24%

Source: Jaderná & Ostin (2021)

Product certification should not only ensure that the life cycle of a product is considered sustainable, but also that it meets consumer demands for its composition. The most consumed beverage is coffee, whose by-products are another industry-wide problem, accounting for 8 million tonnes of residual waste per year. These by-products can be used as ingredients in cosmetics and personal care products. A current issue in this area is the identification and evaluation of natural ingredients that contain bioactive compounds capable of promoting healthy personal care and protecting and improving the appearance and condition of skin and hair. And it is the use of coffee in personal care products that can benefit the consumer by providing natural, non-toxic ingredients and economic alternatives and environmental solutions to promote sustainability within the coffee production chain (De Carvalho Neto et al., 2021). Thus, product composition itself can be a sustainable perspective. An example is the use of sustainable materials for the production of clothing (Provin et al., 2021), or the take-back of material that is then used to make new clothing.

An important communication tool in retail is merchandising or visual merchandising. It is essential to communicate sustainability online (websites) but also in-store (window displays, special shelves). With consumers' increasing attention to the environment and sustainable society, consumers tend to buy sustainable products (Wang, 2014), so it is necessary to highlight them in the store. Some sustainable products are only offered in dedicated stores. Alternatively, there is an assumption that a sustainable store sells sustainable products. A sustainable store is one that adheres to sustainable principles. This could be, for example, a packaging-free shop. This is based on the principle of waste elimination. However, according to Jaderná and Volfová (2020), only 3.31% of 1,000 Czech respondents prefer such shops and only 21.5% are familiar with the concept.

This article aims to highlight which communication factors are crucial for the promotion of sustainable products. The above text highlights those that were observed in the questionnaire survey and will be subsequently evaluated.

3 Methodology

The aim of the survey was not only to identify factors important for the recognition of sustainable products, but also to find out the perception of the sustainable concept and the importance of the sustainability aspect for different types of products. For the purposes of the research, a quantitative method of data collection was used, namely an online questionnaire survey Trendaro. It was attended by 1,000 respondents, where the sample of respondents was representative, due to the panel of respondents by the research agency (using quota sampling). A total of 1,000 respondents were contacted, 509 men and 491 women. There were 196 respondents aged 18 – 29, 365 respondents aged 30 – 44, 332 respondents aged 45 – 64 and a total of 100 respondents aged 65+. The questionnaire survey was carried out within the framework of the SGS Jaderná project at the Department of Marketing and Management of ŠKODA AUTO University in cooperation with the research agency BehavioLabs.

The data was collected between September and October 2021. The data from this survey was subsequently analysed to meet the research objective. In this study, the data were first be interpreted in the form of descriptive statistics to establish a comprehensive overview of the attitudes and preferences of Czech consumers. A one-way ANOVA using the global envelope method was used to process the data generated from the questionnaire survey, in step two. The respondents were divided into 4 categories. As perceptions of sustainability differ with respect to age, gender, education, or economic activity (Jaderná, 2022; Jaderná et al., 2019), socio-demographic data became central to the creation of categories to apply the global envelope method. The diversity of perception modes is also supported by research published by Witek (2020). For women, environmentally friendly features were more important in product selection, while for men it was economic and functional benefits. Young people are indulgers and are driven by taste and aesthetics, but do not pay attention to the environmentally friendly features of products. In terms of age, older respondents are economic and pragmatic buyers for whom energy efficiency and product durability are particularly important.

Based on the frequency analysis of the data, four categories of respondents were created, with each category consisting of two factors:
1. Men aged 45 – 64 years;
2. Women on maternity leave;
3. Students aged 18 – 29;
4. Women with university education.

The global envelope method, which was used to process the survey data, is based on ordinal values, so it does not require any assumptions about the distribution of the data. This method has two advantages. The first is that all indicators are tested simultaneously, thus controlling the incidence of false rejections, where all 8 tests are checked at the same time. If this were not the case and each test was checked separately, the probability of errors would be loaded for each of those tests. Another advantage of this method is that when the results of the research are graphed, it is possible to compare the significance of each of the eight indicators for all four categories at the same time. This means that 32 parameters are included in one model (figure).

The differences for each studied variable could be obtained by basic one-way ANOVA. To bind all studied variables in one test, we have instead used the functional one-way ANOVA (Mrkvička et al., 2020). This is a one-way ANOVA method where the response variable could be either functional or multivariate. This method applies the single permutation one-way ANOVA for every argument of the function or multivariate vector and consequently applies the multiple hypothesis testing correction. The multiple hypothesis testing procedure applied in this

functional ANOVA is based on resamples and therefore it considers the correlation between tests. Consequently, it is more powerful than standard multiple hypothesis testing corrections like Bonferroni or Holm. This allows us to find differences between all variables simultaneously and check the family wise error of the tests. The used method is also a non-parametric method which does not have any assumption about the distribution of the response variables and about the correlation between the response variables, therefore we do not need to test any assumptions of this method.

The graphical output shows the solid line – observed fraction of the respondents, dashed line – the simulated mean fraction of the respondents under the null hypothesis of no differences, shadow area – 95% global envelope computed under the null model. The observed fractions which are not inside the envelope are proven to be significantly different from the overall mean of fractions, where the overall mean indicates the average computed over all groups, i.e., under the null model. The significant fractions are marked in red. Also, the graphical output shows which group differs from the overall mean.

4 Results

The questionnaire survey focused not only on product recognition but also on the perception of a sustainable product. First, the focus was directed towards the attributes of product sustainability. Respondents were asked What is a sustainable product? The results in Figure 1 show that Czech consumers most strongly associate a sustainable product with the environmental aspect. More than 45% of respondents ticked this answer. The answers healthy product and quality product were also above the 10% threshold.
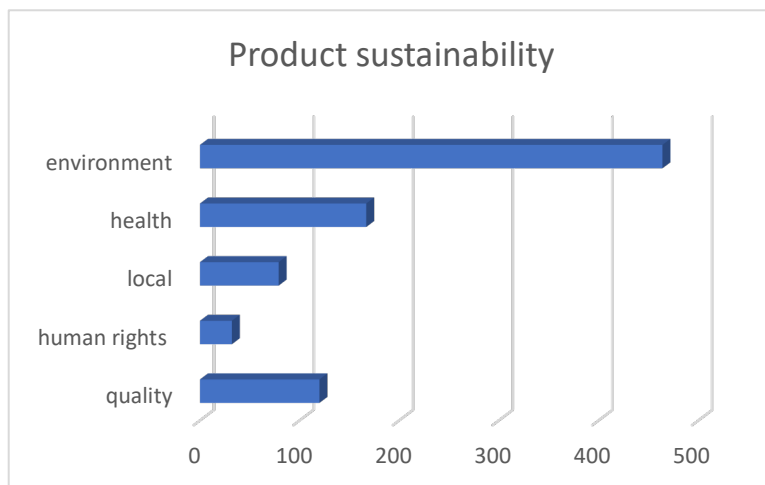

Figure 1. Product sustainability
Source: own processing, 2023

The authors were specifically interested in clothing, pharmaceuticals and cosmetics, and food. The researchers were interested in how important the sustainability aspect was for these three product groups. For more than 40% of the respondents, sustainability was an important issue, most of all for clothing (445 respondents out of 1,000). Sustainability was essential for food for 26% of the respondents, which also recorded the lowest number (20%), and also as an unimportant aspect for 118 respondents, compared to more than 150 for clothing and cosmetics.
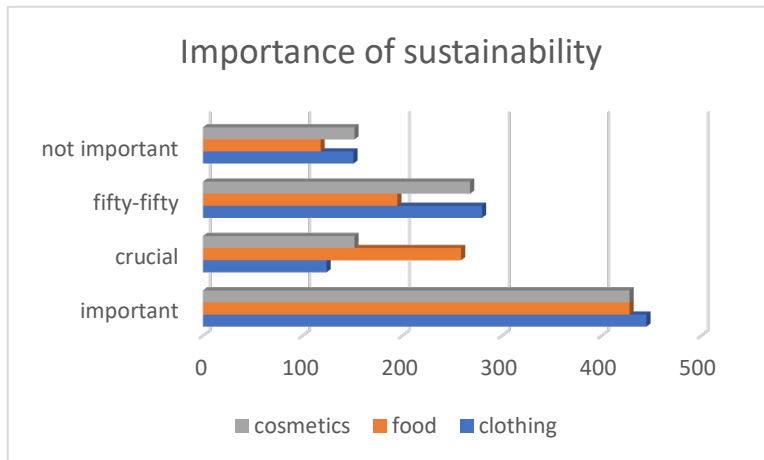
Figure 2. Importance of sustainability by pharmaceuticals and cosmetics, food, and clothing
Source: own processing, 2023

The aim of this study is to identify the importance of partial communication factors of sustainable products for the Czech consumer. For the purposes of the research, respondents were asked how they would recognise a sustainable product. Respondents had a choice of several options, namely (a shortened version of the answer is given in brackets for the purpose of evaluating the results, which is called an indicator):

1. Has a label, e.g. organic, Fairtrade, eco, GOTS... (certificate);
2. By packaging, e.g. recycled (packaging);
3. From the description of the substance's composition (composition);
4. By location in a special section in the store (location);
5. By information from advertising (communication);
6. Sold in a sustainable store (store);
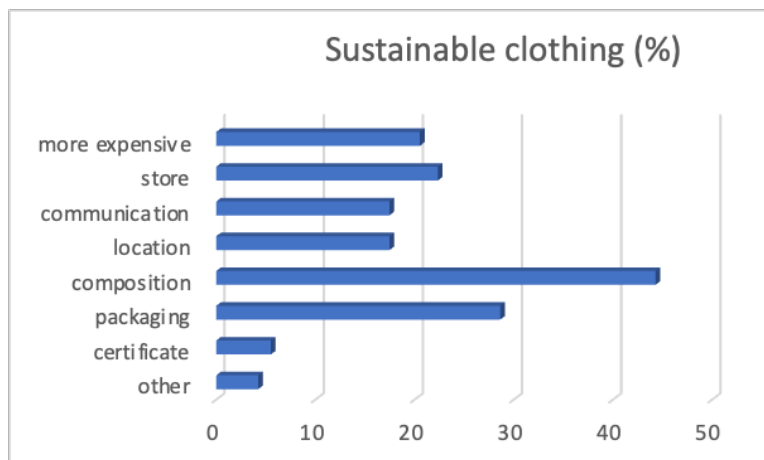7. By higher price (more expensive);
8. By something else (other).

Figure 3. Recognition of sustainable clothing
Source: own processing, 2023

The ways of marketing communication of sustainable products were assessed by the respondents, and each could tick more than one answer. Figure 3 shows the percentage of responses to each tool for clothing. Composition was the most cited by respondents (nearly 45%), while certifications were the least cited (only 5% of respondents).
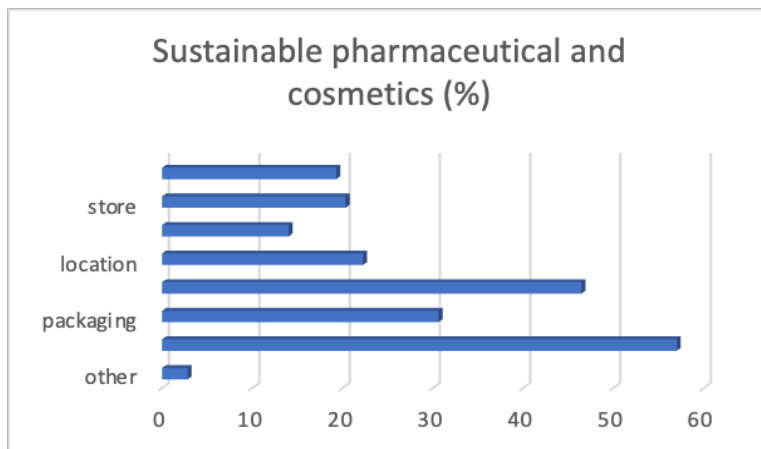

Figure 4. Recognition of sustainable pharmaceuticals and cosmetics
Source: own processing, 2023

The situation was different for pharmaceuticals and cosmetics (Figure 4). There, the certificate was important for 57% of respondents to recognise a sustainable product. 46% looked at the ingredients and, as with clothing, the packaging was crucial for almost 30% of respondents.
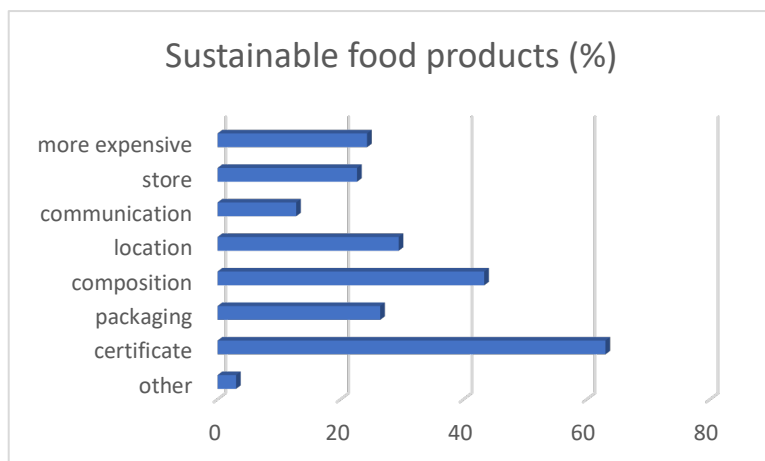

Figure 5. Recognition of sustainable food products
Source: own processing, 2023

Figure 5 shows the recognisability of sustainable food. The most important aspect was the certificate (63% of respondents), 43% looked at the product's ingredients and for almost 30% its location in the store was important. Packaging was important for 26% of respondents.

The previous charts showed the perception of sustainable products by Czech consumers. However, it was in the interest of the researchers to focus on those groups that are closest or furthest away from sustainability. The so-called global envelope is indicated as the shaded area in the individual graphs below, the dashed line indicates the

simulated mean proportion of respondents without difference under the hypothesis that no parameter is affected by respondent category, and the solid line indicates the observed fraction of respondents (results from the survey).
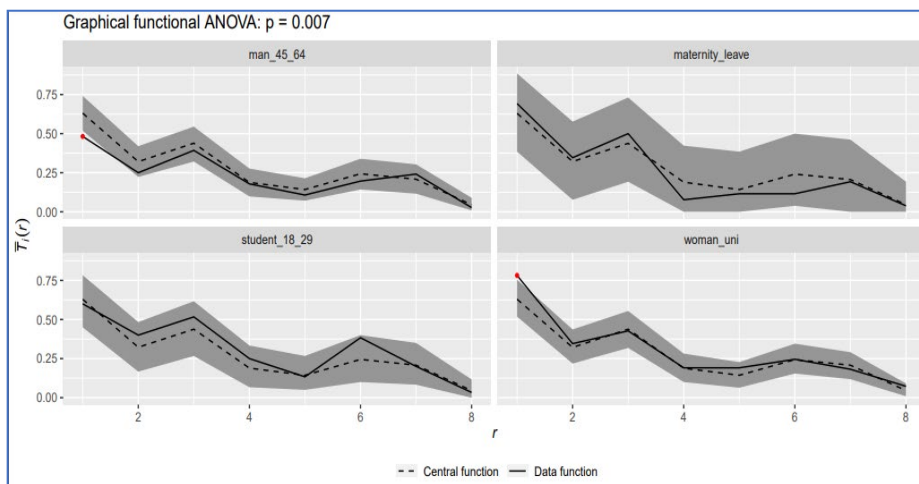
Legend: 1 certificate; 2 packaging; 3 composition; 4 location; 5 communication; 6 store; 7 more expensive; 8 other
*Figure 6. Clothing*
Source: own processing, 2023

Based on the four graphs presented in Figure 6, it is clear (red points) that in the case of clothing products, the indicator certificate is perceived significantly by two categories, namely men aged 45 – 64 years and women with higher education. With this, according to the top left graph (red point), it is evident that the category males 45 – 64 years perceive the certificate less significantly (50%) than any respondent without category difference (63%). On the other hand, university educated females (red point in the bottom right graph) perceive the certificate significantly more (76%) than any respondent without category difference (63%). The p-value is equal to 0.007.
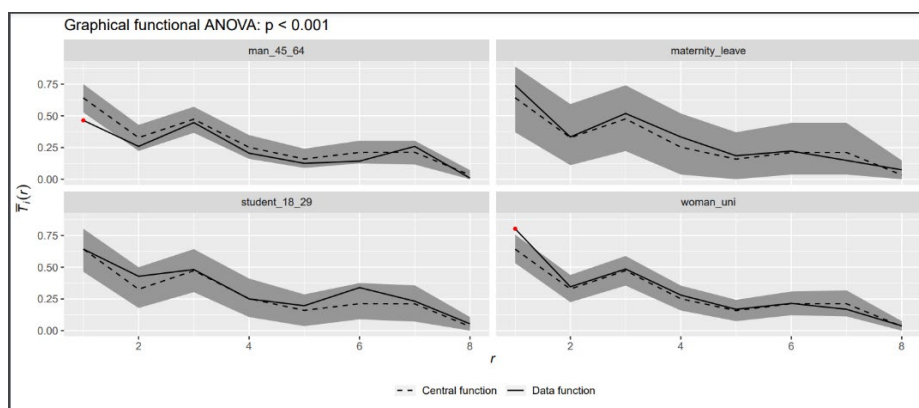
Legend: 1 certificate; 2 packaging; 3 composition; 4 location; 5 communication; 6 store; 7 more expensive; 8 other
Figure 7. Pharmaceutical and cosmetics
Source: own processing, 2023

Figure 7 again shows that the categories males 45 – 64 years and college educated females perceive the indicator certificate significantly for drugstore and cosmetics. With the category males 45 – 64 years less significantly (49%) than any respondent without category difference (63%) and the category university educated

female more significantly (78%) than any respondent without category difference (63%). The results are at less than 1% level of significance.
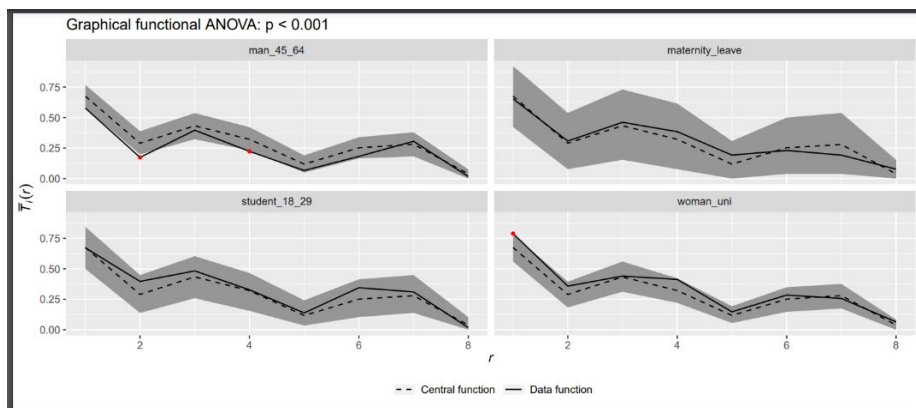
Legend: 1 certificate; 2 packaging; 3 composition; 4 location; 5 communication; 6 store; 7 more expensive; 8 other
Figure 8. Food
Source: own processing, 2023

Figure 8, again, shows that for food only two categories, namely males 45 – 64 years and college educated females are different from any respondents without any category difference. For the males in the 45 – 64-year-old category, the perception of the indicator packaging is less significant (20%) than any respondent without category difference (33%) and for the indicator location, the perception is less significant (25%) than any respondent without category difference (33%). For the college educated female category, again the indicator certificate is perceived significantly (80%) than any respondent without category difference (70%). The results are at less than 1% level of significance. In summary for all figures, the indicator certificate is predominantly perceived as significant for the two categories males 45 – 64 years and university educated females.

5 Discussion and Conclusion

Theoretical Implications

Sustainability aspects are essential for strategic planning in marketing and management. It is necessary to identify consumer groups with regard to different perceptions of the severity of environmental problems and their purchasing preferences. It is then possible to identify the specific needs, attitudes, behaviours, and values of the so-called green consumer and to target communication towards them (Finisterra do Paco et al., 2009).

The green consumer is characterised by a high awareness and consciousness of the problems, causes and consequences caused by the depletion and degradation of the eco-system. Their personal activities are aimed at restoring the environment or at least minimising the burden. Green consumers also address the issue of their purchasing and consumption habits. Their own behaviour at the local and global environmental level is crucial for them (Batth, 2018).

Ruggeri et al. (2021) report that shoppers of a well-known Italian retail chain were positive about the inclusion of certification on products, as well as being willing to pay a premium price for certified products, and this willingness increased when they were given additional information regarding the Fairtrade system.

Green consumption behaviour is often dependent on socio-demographic aspects. Higher levels of education and income were considered to be the main determinants. From the 1990s to the present, more emphasis has been given to psychographic and behavioural variables in academic texts (Afonso et al., 2018). Even though

sociodemographic variables have a minor impact on green behaviour, Diamantopoulos et al. (2003) state that it is important to study and link their influence with other variables. Age is an important factor, with younger age groups expressing higher environmental concerns. However, age is not taken as a guiding factor with regard to negative or positive influence on green behaviour (Finisterra do Paco et al., 2009). Gender is seen as a factor influencing environmental attitudes more in older research (Straughan & Roberts, 1999). However, other studies and Diamantopoulos et al. (2003) report that men have higher environmental awareness and are more informed than women. Consumer acceptance has a positive effect on green behaviour criteria. The main reason for this positive relationship is that consumers with higher incomes can more easily overcome financial barriers and pay higher prices for some green products. They are therefore less sensitive to price changes. At the same time, these consumers tend to have stronger attitudes towards environmental issues and therefore also opt for more expensive green alternatives to conventional products (Finisterra do Paco et al., 2009).

The Czech consumer is specific in their attitudes. A sustainable product is mainly associated with the environmental aspect, followed by health and quality values of the product. This is also supported by the results of the questionnaire on the importance of product sustainability for different product groups. It is particularly crucial for food, but also for more than 40% of the respondents.

Of the monitored communication tools for food, and pharmaceutical and cosmetics, the most important is the certificate and composition of the product. This is how Czechs recognise a sustainable product. Packaging and, in the case of food, display in the store is also an important communication tool.

Frequency analysis of the presented research data helped to identify categories always based on two variables. Specifically, these were men aged 45 – 64 years, women on maternity leave, students aged 18 – 29 years and women with a university degree. The global envelope method was then applied to these categories. For the purpose of data interpretation in this study, the above categories are considered as green consumers.

Managerial Implications

In general, Czechs consider sustainable products to be eco-friendly, high-quality, and healthy. Their communication should be based on these attributes. The research showed that a suitable communication tool is a certificate, information about the composition of the product and possibly the packaging.

The results of the frequency analysis of the research data highlighted the most important target groups on which marketing management can focus product sustainability communication. These are men aged 45 – 64, women on maternity leave, students aged 18 – 29 and women with a university degree.

In general, Generations Y and Z are more inclined to care for the environment and therefore to buy sustainable products. Education is an important factor, the higher the education, the more interest in sustainable products. Income is particularly important for sustainable products, as their price is higher than for traditional products.

Marketing management works in the context of marketing communication planning not only with what specific tools to use (advertising, sales promotion, direct marketing, PR, or personal selling). It is also important to decide on the content of the message and the choice of the appropriate medium. For the purpose of the research, the most common communication factors for sustainable products were identified. Respondents to the questionnaire survey chose from factors such as labelling (certificate), packaging, description of ingredients, placement in a special section in the store, information from advertising, selling in a sustainable store or higher prices.

Interpretation of the data using the global envelopes of the selected categories showed that the indicator certificate was predominantly perceived as significant for the two categories – 45 – 64-years-old males and university educated females. Trust in certificates is still strong and the telling power of a certificate is crucial to inform consumers about the sustainability of a product.

Limitations

A significant limitation of the survey, the results of which are presented in this article, is the researchers' focus on Czech consumers only. The sample of respondents was representative (1,000), so it is possible to generalise the

results of the survey for the Czech population. However, the selected categories were defined with respect to only two variables due to the sufficient number of participants in each category. Thus, future surveys could focus directly on the identified categories to add other important variables. However, for this, an in-depth journal and literature search is needed.

Another limitation may be the focus on only some communication factors. These have been identified based on journal searches and previous research by the researchers. However, just as socio-demographic influences on sustainable behaviour are changing, so too are psychographic aspects or education by the state. The change in sustainable behaviour has been noticeable over the last few years as environmental solutions have become increasingly discussed. Moreover, in the context of the current energy crisis, attention is being drawn to energy-efficient products, i.e. ENERGY STAR certified products.

Trust in long-established certificates is growing and it would be useful to focus more on their communication. Future research could then work not only with green consumers, but a focus on the whole population to uncover significant influences on changing consumption behaviour could be essential.

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