

Green Marketing and Greenwashing in Poland and France, a Comparison of Consumer Reactions

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Abstract ***Purpose.** The human influence on the environment and its protection are subjects of marketing communication, and numerous regulations were issued to control the “green” messages. The popularity of such practices makes it essential to compare the reactions to green marketing and greenwashing in two European societies and to check how “green” awareness of European consumers translates into behavior.*

***Design/method/approach.** The review of literature and decisions regulating green marketing is followed by a CAWI study of the French and Polish young consumers ecological attitudes, intentions, and behaviors. ANOVA and linear regression methods were used to analyze data.*

***Findings.** The French young consumers are more pro-environmentally focused than Poles and display more robust skepticism toward sustainable claims. The Poles, more than the French, focus on the products’ primary functions. Both groups show higher levels of spontaneous awareness of greenwashing than average consumers in those two countries. Our hypotheses about relationships of ecological attitudes with purchase intentions and behavior were supported. Surprisingly, there was a negative relation between French nationality and environmental behaviors.*

***Originality/Value.** There is a regional market segment of European consumers from Generation Z who react similarly to green marketing claims and reject the greenwashing actions. They are highly environmentally aware, but the relationships between their eco-attitudes and behaviors, albeit significant, are weak.*

***Practical implications.** The marketers aiming their activity at the young customer segment should not expect an immediate influence of ecological attitudes on behaviors. This market segment can instead become a powerful influencing group among their societies.*

Keywords green marketing, greenwashing, consumer attitudes, France, Poland

INTRODUCTION

In 1987, the concept of sustainable development was born. It owes its name to the Brundtland Report, established in 1987 by the UN World Commission on Environment and Development (UNCWED, 1987). This report is now considered a reference in environmental education and policies. In this report, sustainable development is defined for the first time as: “*the development that meets the needs of the present without compromising the ability of future generations to meet their own needs*”. This concept is based on three fundamental pillars: the social one, the economic one, and the environmental one. The next step was to implement sustainable development in different entities, including companies. It requires organizing them to preserve the environment’s resources while answering the diverse needs that companies serve.

At first glance, marketing and the concept of ethics and sustainability do not mix well. However, marketing is about selling and inspiring, educating, and raising awareness with ideas that make prospects want to come to the brand on their own (Emarketing, 2012). First, green or ecological marketing involves setting up a corporate communication strategy compatible with environmental values (Laplume.mg, 2022). In the following stages, designing, producing, and communicating more responsibly in an increasingly competitive market are the goals of green marketing. It must consider all these issues by respecting the UN’s Sustainable Development Goals, which were adopted by the United Nations in 2015.

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To be more concrete, marketing aspects of sustainability include the incorporation of sustainability elements in firms' communication strategies and socially responsible purchasing and distribution policies. Thus, contemporary studies examine how environmental issues can be integrated into the firm's pricing tactics to attract customers and design and develop new products (Leonidou et al., 2013).

THEORETICAL BACKGROUND

Green marketing is a management process that can make a company more profitable and contribute to the company's long-term viability through sustainable practices (Peattie, 1993). It can be divided into three main types of activities (Murphy, 2005), including ethical marketing, sustainable marketing, and social marketing.

Ethical marketing can be defined as all marketing practices for which moral criteria are considered (Meltwater, 2021). It is focused on transmitting the right message, following the company's values, to the right person to have a positive social, economic, and environmental impact. This concept is multidimensional because it can be related to the nature of the products marketed (e.g., alcohol, tobacco, gambling, etc.), or to the nature of the marketing actions used or to targets considered "fragile" (young people, elderly, etc.). In this case, ethical marketing must respond responsibly and ethically to the issues caused by the products and help the common interest and the one of companies.

Sustainable or responsible marketing is an approach proposed by the sociologist Gérard Mermet in 2002 (Mermet, 2002). Sustainable marketing integrates the principles of sustainable development. The objective is to reduce the environmental impact of marketing in planning and implementation while integrating social responsibility (HelloCarbo, 2021).

Examples of sustainable marketing strategies include participatory marketing, intended to ask the opinion of the community, prospects, or customers to format better the company's offer (facilitated by social networks). Another, nudge marketing (Thaler and Sunstein, 2008), also promotes small changes in the environment around consumers to help them make their choice without forcing or hindering (often based on humor).

Social marketing is a term coined by Philip Kotler and Gerald Zaltman in 1971 (Kotler and Zaltman, 1971). It was a concept describing marketing actions that could modify social behaviors at the time. In fact, in the title of his book published in 2008, Philip Kotler summarized the challenge of this approach to marketing by *Social Marketing: Behavior Change for Social Good* (Lee and Kotler, 2020). It refers to marketing actions promoting social causes or general interest (IntoTheMinds, 2021). For example, a social marketing campaign can be set up at the initiative of an advertiser defending a social cause (NGO, road safety association, etc.).

Green marketing encompasses these three different nuances of marketing; however, they all have a common point as steps toward the improvement of the social responsibility of a company. Different examples of green marketing implementation policy in the company (EMLV, 2020) are:

- passive green marketing, when the company commits itself to follow only the laws imposed by the government concerning ecological rules,
- selective green marketing, when the company itself takes ecological measures according to what is practiced by the competition,
- internal green marketing, when the company instills an ecological impulse in its structure by proposing ecological measures for the development and production of a product or service, and
- innovative green marketing, when the company takes the lead and invests in research to establish new ecological standards.

Thus, depending on its commitment, each company can integrate a green marketing strategy into its processes. For example, cruise ship operators in the Baltic Sea region focus on sustainable management and care about the image of their organizations to be called environmentally responsible and socially sensitive. They invest enormous resources into pro-ecological solutions, increasing ships' energy efficiency and reducing harmful emissions during ship operations. They also implement various incentive and assistance programs for their employees and are willing to help and invest in coastal regions. They regularly monitor the implementation of sustainable development programs and strategies and report these efforts annually to the public (Kizielewicz, 2022).

Among the marketing-mix elements, "green" communication has recently been the most frequently used tool to enhance the perceived image and increase customer trust toward the company offering. Unfortunately, there are numerous examples, both in the mature and developing economies, of abusing green communication and employing so-called greenwashing. Greenwashing is used to describe the corporate behavior that makes misleading statements about the green attributes of its brands or products, as opposed to genuine environmental behavior (Sun and Shi, 2022).

There are few comparative studies on green marketing perception and its abuses conducted in environments of mature and emerging markets, and no studies comparing the Polish and French consumer reactions to greenwashing (Pileliéné and Tamuliené, 2021; Roozen and Pelsmacker, 2000). It seems interesting to find out the responses of consumers from different societies to this recent phenomenon and how their attitudes relate to behaviors. Therefore, this study compares the influence of green marketing and greenwashing on consumer decisions in two countries, France and Poland, which are different on several levels: GDP per capita (high vs. medium), development stage (mature economy vs. post-transition economy), the importance of environmental issues (with Poland being classified as a country with the highest levels of air pollution in Europe (Notes from Poland, 2022), etc. In addition, the study aims to check how consumers' ecological attitudes in these countries translate into their behavior.

The paper first looks at the greenwashing types and ways to counteract them. Moreover, the legal reactions to greenwashing in these two European markets are compared. In the second, empirical part of the article, the ecological attitudes of consumers in two markets are compared, together with their reactions to green marketing. Conclusions regarding the relationships of variables and recommendations for practitioners are presented in the last part of the article.

ABUSES IN GREEN MARKETING

The term "greenwashing" comes from the contraction of the words "green" and "whitewashing" (whitening or hiding information). The concept first appeared in the United States in the late 1980s after American environmental activist Jay Westervelt used it in his essay (Motavalli, 2011) on hotel industry practices. In this essay, he questioned the communication prepared by industry professionals under the guise of respect for the environment.

The term was then widely used from 2006 with the extension of the phenomenon itself. The organization CorpWatch (CorpWatch, 2001) defined greenwashing as:

- socially or environmentally harmful behavior of companies that attempt to preserve and expand their markets by presenting themselves as friends of the environment,
- environmental laundering, or
- any attempt to indoctrinate customers or decision-makers into seeing the polluting corporations as essential to sustainable development.

In other words, greenwashing has been clearly linked to corporate communication. It consists of communicating to the public by using ecological arguments in a misleading way to improve the image of the message sender.

Two main classifications of greenwashing include the "claim" one and the "executorial" one (Freitas Netto et al., 2020). The "claim" of greenwashing uses textual arguments that explicitly or implicitly refer to the ecological benefits of a product to create a misleading environmental claim. To better imagine these practices, in France, the Agency for the Environment and Energy Management published an anti-greenwashing guide (ADEME, 2012) in 2012. The greenwashing techniques are classified there in a concrete way:

- the pure and simple lie,
- the disproportionate promise,
- the use of vague terms,
- visuals that are too suggestive compared to the real product,
- fake eco-labels (self-proclaimed and not corresponding to any reference system),
- promoting sustainable practices that have nothing to do with the product,
- claims without proof, and
- false exclusivity when the company is only complying with the law.

Some examples of greenwashing in Poland illustrate the most popular practices in this area. The primary energy producer used a misleading advertising slogan, "Power of wind. Power of water. Clean energy. Clean business", in 2011. However, only a fraction of the energy provided by this company is based on renewable sources, and the majority comes from burning coal (Czaja, 2011). The Commission on Advertising Ethics stated that layouts using this claim "directly inform about a false environment friendliness of the producer, and conducting a clean business based on clean energy derived from wind and water". Thus, such a practice may be classified as "vague terms" or "claims without proof".

A producer of a popular mineral water brand employed a famous eco-activist, journalist, and traveler in their advertisement in 2018. In the commercial, she claimed that buying mineral water in plastic bottles is environmentally friendly. Moreover, she

claimed that plastic is easier to be recycled than glass, it is also lighter, and thus the cars transporting these bottles use less fuel to deliver them to the shops (włączoszczędzanie.pl, 2022). Such a practice can be classified as a “claim without proof”.

In 2019, the Polish energy producer started a promotional action, “Green light for greenwashing”, within which one could wash their electric car for free at some points in Warsaw. In fact, it had nothing to do with the ecology because cleaning the vehicles was done according to regular procedures, using detergents. According to the classification above, such a practice might be classified as “a disproportionate promise” (Magazyn Nowa Sprzedaż, 2020).

In France, green marketing abuse started much earlier than in Poland. In 2009, a campaign of major French electricity providers put forward their strong commitment to ecology. The “Change energy together” campaign aimed to promote energy solutions to fight against global warming. However, the producer forgot to specify that the budget devoted to research on renewable energies represents only 2.1% of its total R&D budget, thus making a disproportionate promise.

In 2011, a French supermarket chain launched a campaign to show its ecological commitment in the fishing sector. The responsible fishing label could be found on some of their products. However, the only eco-label present in France for eco-responsible fishing is the one of the Marine Stewardship Council (MSC), and it turns out that the label used by the supermarket chain looked strangely like that of the MSC and was a fake eco-label. Moreover, industrial deep-sea fishing, like the chain's, cannot be considered sustainable (Cash Investigation, 2012).

GREENWASHING CONSEQUENCES AND COUNTERACTIONS

In March 2022, the European Commission proposed to update the consumer protection rules to empower consumers to act in line with the green transition (European Commission, 2022). This law update will enable consumers to make informed and environmentally friendly product choices. In addition, these rules strengthen consumer protection by prohibiting greenwashing and practices that mislead consumers about the sustainability of a product. The Commission modified the “blacklist” of banned unfair commercial practices, adding, among others, “making generic and vague environmental claims”, “displaying a voluntary sustainability label that is not based on a certification system”, and “not informing the consumer that a good is designed to perform to a limited extent if consumables, refill parts or accessories not supplied by the original producer are used”. Once these laws are adopted into member states' national legislation, consumers will have the right to redress in case of infringement. Moreover, in France, the Climate & Resilience Law (National Assembly and Senate – French Republic, 2021) from 2022 introduces numerous restrictions on advertising to take more remarkable account of ecological issues. More specifically, Articles 4 and 10 of the law define greenwashing and forbid to falsely claim that a product/service is “carbon neutral” or “without negative consequences for the climate” unless the advertiser can demonstrate that it has taken a virtuous approach to avoiding and reducing its greenhouse gas emissions by complying with high environmental quality standards. In addition, from 2022, advertisements promoting specific industries or highly polluting products are banned, such as fossil fuel advertising. To prohibit unlawful practices, sanctions are put in place. Finally, to highlight the companies that respect these obligations, an “eco-score” will be created as an environmental label that will make it possible to display the ecological impact of products.

In Poland, some formal reactions to greenwashing took place only recently. To implement Regulation 2018/848 of the European Parliament and the Council on organic production and labeling of organic products, the Polish Supreme Administrative Court issued a statement that putting the “eco” or “bio” label on products is not permitted if they do not comply with the EU regulation (Naczelny Sąd Administracyjny, 2018). However, greenwashing practices cover much broader activities than the unfair use of “eco” labels. According to Polish law, they can be treated as “acts of unfair competition” and thus fall under Act of 16.04.1993 if they are contrary to law or good practices, and at the same time, they threaten the other company or client. Greenwashing types falling under this law are the mismarking of goods or services (art. 10), dissemination of false information (art. 14), and misleading advertising (art. 16) (Sejm RP, 1993).

In addition, according to a report by the European Commission prepared in 2020, the extent of greenwashing among the EU firms using “organic” claims was very high. As a result, it obliged all the consumer protection offices in the EU to try to stop such actions, which resulted in the recent Polish anti-monopoly office's activities, such as verifying Polish firms' advertising claims related to eco-friendliness in 2023 (Kiwnik Pargana, 2021). Despite these efforts, the legal reactions against greenwashing practices of firms in Poland are still minimal.

CONSUMER REACTIONS TO GREEN MARKETING AND GREENWASHING—HYPOTHESES

Green marketing and its abuses cause different consumer reactions, including changes in attitudes and the actual behaviors—for example, purchasing ecological products or choosing environmentally aware suppliers (Román-Augusto et al., 2022). According to Bagozzi et al. (1979), people's attitudes are composed of three components: affective component relative to emotions toward an attitude object, cognitive component resulting from knowledge about an attitude object, and behavioral or conative component, that is, intentions to act toward an attitude object, like intentions to purchase, recommend, etc. The purchase intentions of individual consumers are analyzed according to the theories of planned behavior (TPB) (Ajzen, 1991) and theories of reasoned action (TRA) (Hausenblas et al., 1997). Both TBP and TRA assume a direct positive relationship between, first, attitudes and (behavioral) intentions and, second, between intentions and actual behaviors. According to TRA, two concepts directly influence intentions: attitudes and subjective norms, and intentions influence behaviors. TPB postulates that the intentions to perform behaviors can be predicted accurately from attitudes toward the behavior, subjective norms, and perceived behavioral control. These theories define purchase intention as a consumer's predisposition to buy a brand or product (Belch and Belch, 2021).

Ecological attitudes include beliefs and emotions about environmental activities and issues (Schultz et al., 2004). Furthermore, ecological attitudes are psychological tendencies expressed by evaluating the natural environment favorably or unfavorably to some degree (Ataei et al., 2019; Chan, 2001), which can be expressed by consumer statements such as: *"Purchasing ecologically is a good idea"*.

Ecological attitudes of consumers include the willingness to protect the environment, perceiving the consumption of environmentally friendly products as necessary, or considering environmental protection as an essential part of corporate strategies. There are numerous studies analyzing green marketing's influence on consumer behavior (Chen et al., 2022; Sogari et al., 2017; Zahid et al., 2018; Zhao et al., 2019). A study by Govender and Govender (2016) proved a relationship between environmental concern and green marketing initiatives and concluded that increasing consumer awareness about the environment impacted the buying behavior toward green products in Southeast Asia. Similarly, Simanjuntak et al. (2023) evidenced that green marketing and environmental concerns significantly and positively affected the intention to purchase green products in Indonesia.

Regarding the Central and Eastern European markets, Kita et al. (2021) found that consumer behavior toward organic products is primarily determined by attitudes that are influenced by a person's degree of ecological awareness, level of knowledge, and marketing activities of firms. In Romania, it was found that the sustainable behavior of Generation Z consumers was connected to the satisfaction it conveyed to them, as well as their environmental protection activities (Dragolea et al., 2023).

The reaction of the European consumers to green marketing and greenwashing is still not much pronounced, and they admit that acts of greenwashing prevent them from making informed decisions (Pedersen, 2023; Thøgersen, 2021). However, eco-awareness has been growing steadily, especially among Generation Z (Dragolea et al., 2023), born between 1996 and 2010. It is worth noting that 50% of Generation Z and among them, mostly women, are very concerned about environmental protection issues (Dragolea et al., 2023).

Recent studies show that consumers are confused by greenwashing and thus become skeptical of promotional claims (Rahman and Nguyen-Viet, 2023). Sustainability claims in the food industry are increasingly difficult to be understood by consumers (Pedersen 2023). According to a study on a representative sample of consumers from Denmark, society is not well educated about greenwashing (24% unprompted awareness of the greenwashing definition). After seeing the definition of the term, 62% of Danes think they are exposed to greenwashing and want to be aware of the more holistic picture of food sustainability.

The so-called "GREEN" consumption values (Haws et al., 2014), include the perceived importance of not harming the environment by one's consumption; the perceived environmental impact of one's actions and purchases, and describing oneself as environmentally responsible. They also have a direct positive impact on consumer attitudes toward the ads. Further, taking the example of Indian consumers, it was shown that the attitude toward green advertising directly impacts the attitude toward the brand (Bailey et al., 2016). However, Nabivi (2020) proved in a review of studies on the social media role in green purchasing that "classical" mass media advertising was not as effective as other media formats in eco-purchasing.

The greenwashing perception also influences green purchasing (Sun and Shi, 2022). Such behavior includes rejecting products made by greenwashers and selecting products from environmentally friendly producers. Environmentally aware consumers might start controlling the trustworthiness of green claims and prefer green marketing communication (Yang and Chai, 2022). Lu et al. (2022) found that greenwashing perception had an indirect negative effect through consumers' risk perception, on the green purchase intention. If companies use greenwashing to deceive consumers, consumers may be reluctant to build trust or long-term relationships with companies, ultimately reducing their purchases (Wang et al., 2020).

To sum up, we will test hypotheses based on the following concepts:

1. Ecological attitudes which are represented by answers to three questions:

- Is it important to you to consume products from a company that takes environmental and social factors into account and communicates on them?
- Do you think that the sustainable development (implementation of corporate social responsibility - CSR) is taken into account in the strategies of large companies?
- Do you think you are someone who is willing to make an effort to do something for the environment?

2. Behavioral intentions (related to greenwashing), represented by answers to one question:

- If you learn that a company is greenwashing, will you continue to buy from them?

3. Behaviors represented by answers to two questions:

- When a company communicates about a “green” product using the notion of ecology, do you look to see if the product is really greener than average? (Behavior related to checking the validity of companies’ green claims.)
- Which advertisement makes you want to buy the product the most? (Pre-purchase behavior is related to expressing a preference for either a “green” or a “functional” advertisement.)

The presented literature, that is, theories (TRA and TPB, Leone et al., 1999) assuming the positive relationship between, first, attitudes and behavioral intentions and, second, between behavioral intentions and actual behaviors, as well as practical examples quoted in this article enabled us to suggest the following hypotheses for verification:

H1: There is a positive relationship between ecological attitudes and behavior of checking the validity of firms’ “green” claims.

H2: There is a negative relationship between ecological attitudes and intentions to buy products from firms engaged in greenwashing.

H3: There is a positive relationship between ecological attitudes and behavior of selecting the “green” advertisement.

RESEARCH METHODOLOGY

The study was run in the spring and fall of 2022, with the use of a CAWI questionnaire, which was distributed in two language versions (Polish and French) among the students of a university in Warsaw, a university in France, and among their friends. A convenience sample by quotas was used based on respondents’ nationality (non-probabilistic sampling procedure). Data were collected through a self-administered online questionnaire. The sample was drawn purposefully among the Generation Z representatives, the respondents who usually know about environmental protection issues (Dragolea et al., 2023). The sample included a group of 88 French and 83 Polish consumers aged between 18 and 25. The sample size is based on five to ten times the number of variables (Hair et al., 2012). Because this study has eight variables, the minimum required sample size is 80 participants.

As for the occupational status, 78% of respondents were students, and 21.6% were working; as for the gender—65.5% were females, and 34.5% were males, with the majority of respondents living in large cities.

In the first stage, the consumers were asked to choose the more convincing of two parallel advertisements of a fabric softener, one emphasizing the green origin of the product, showing an image focused on nature with a meadow in the background, and a mother with a baby. The second was a functional advertisement, which claimed “long-lasting freshness” and showed a pack shot in a neutral blue-sky background and a baby’s face on the product packaging. The first (“green advertisement”) was picked more frequently in both groups, and there were no significant differences in the distribution of answers between nationalities (ANOVA $F=0.001$; $p=0.969$).

The respondents were then asked questions about knowledge of greenwashing “*Do you know the term ‘greenwashing’?*” To check the correct understanding of the term *greenwashing*, the participants were also asked to explain it. The words that came up the most when asked to define greenwashing by the participants who knew the term, were the following: “*misleading advertising*”, “*to make yourself look good*”, “*fake*”, “*abuse*”, “*pretending to be ecological for material purposes*”, “*oversell*”, “*lie*”, “*illusion*”, “*disinformation*”, and “*manipulation*”. This shows that the respondents had a quite good understanding of the term. However, the distribution of answers was different in Poland (76.2% knew the term) than among the French consumers (60.8% knew the term).

Regardless of what they knew about greenwashing, a short explanation of what greenwashing meant was later provided. Next, the ecological attitudes were checked in the sample. The respondents were shown a definition of socially responsible activities

and asked the following questions about their attitudes (five-point Likert-type scales ranging from 1 to 5):

- *Do you think you are willing to make an effort to do something for the environment?*
- *Do you think that sustainable development is considered in the strategies of large companies?*
- *Is it important to you to consume products from a company that takes environmental and social factors into account and communicates on them?*

RESULTS

About 69% of Polish respondents and 86.3% of French respondents declared they were willing to make some efforts for the environment. Moreover, 65.4% of Poles and 83.4% of French respondents reported it was vital for them to consume products offered by companies that consider environmental and social factors. Such a result shows that the sample had much stronger pro-environment attitudes than the average members of populations in both countries. Indeed, the French have shifted their focus to environmental awareness in the space of five years: 60% now believe that “green” actions are not incompatible with growth and employment. And yet, 86% of French people believe they have an environmental conscience, even if only 21% think they act in this direction daily (Odoxa, 2021). In Poland, sustainable production processes and ecological attributes are the primary purchasing decision factors only for 15% of consumers (2022), compared to 25% of consumers two years earlier (PWC Polska, 2023).

Finally, a story related to a real-life example of a company that promised to recycle old products but later stimulated purchases of products that increase pollution was presented. The question “*If you learn that a company is greenwashing, will you continue to buy from them?*” was asked about this firm. There were no significant differences between nationalities regarding the intention to continue buying from the company engaged in greenwashing (34.6% of Poles; 35.3% of the French).

The results from the two countries were then compared by means of the analysis of variance (Table 1). The Polish consumers are significantly less sensitive to the environmental claims of the companies (it is not as important for them to consume products with “green” claims as for the French), and there is a significant interaction of nationality with gender (Polish men are less sensitive to environmental claims than women, while French women are less sensitive to ecological claims than men).

Table 1. Attitudes toward consuming products made by environment-friendly companies

Descriptive Statistics					
Dependent Variable: Is it important to you to consume products from a company that takes environmental and social factors into account and communicates on them?					
Nationality	Gender	Mean	Std. Deviation	N	
Polish respondents	Male	3.57	1.068	37	
	Female	3.87	0.833	46	
	Total	3.73	0.951	83	
French respondents	Male	4.50	0.598	22	
	Female	4.06	0.875	66	
	Total	4.17	0.834	88	
Tests of Between-Subjects Effects					
Dependent Variable: Is it important to you to consume products from a company that takes environmental and social factors into account and communicates on them?					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	13.157 ^a	3	4.386	5.653	0.001
Intercept	2339.969	1	2339.969	3016.261	0.000
Nationality	11.540	1	11.540	14.876	0.000
Gender	0.173	1	0.173	0.222	0.638
Nationality * Gender	5.026	1	5.026	6.478	0.012
Error	129.556	167	0.776		
Total	2823.000	171			
Corrected Total	142.713	170			

^a. R Squared = 0.092 (Adjusted R Squared = 0.076), source: own elaboration.

Furthermore, French consumers are significantly more eco-skeptical toward corporate environmental responsibility (they do not trust that large companies implement the “green” policies, Table 2).

Table 2. Attitudes toward including sustainable development into strategies of large companies.

Descriptive Statistics					
Dependent Variable: Do you think that the sustainable development is taken into account in the strategies of large companies?					
Nationality	Gender	Mean	Std. Deviation	N	
Polish respondents	Male	3.00	1.054	37	
	Female	3.02	1.125	46	
	Total	3.01	1.088	83	
French respondents	Male	2.68	1.211	22	
	Female	2.30	0.911	66	
	Total	2.40	1.000	88	
Tests of Between-Subjects Effects					
Dependent Variable: Do you think that sustainable development is considered in the strategies of large companies?					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	18.497 ^a	3	6.166	5.667	0.001
Intercept	1107.639	1	1107.639	1018.082	0.000
Nationality	9.830	1	9.830	9.035	0.003
Gender	1.166	1	1.166	1.071	0.302
Nationality * Gender	1.467	1	1.467	1.348	0.247
Error	181.690	167	1.088		
Total	1443.000	171			
Corrected Total	200.187	170			

^a. R Squared = 0.092 (Adjusted R Squared = 0.076),
source: own elaboration.

Further analysis showed that French consumers were significantly more willing to make an effort to do something for the environment than the Poles (Table 3).

Table 3. Attitudes toward making an effort for the environment

Descriptive Statistics					
Dependent Variable: Do you think you are willing to make an effort to do something for the environment?					
Nationality	Gender	Mean	Std. Deviation	N	
Polish respondents	Male	3.81	0.877	37	
	Female	3.91	0.755	46	
	Total	3.87	0.808	83	
French respondents	Male	4.09	0.610	22	
	Female	4.27	0.714	66	
	Total	4.23	0.690	88	
Tests of Between-Subjects Effects					
Dependent Variable: Do you think you are someone who is willing to make an effort to do something for the environment?					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	6.289 ^a	3	2.096	3.715	0.013
Intercept	2366.299	1	2366.299	4193.386	0.000
Nationality	3.742	1	3.742	6.632	0.011
Gender	0.738	1	0.738	1.307	0.255
Nationality * Gender	0.058	1	0.058	0.103	0.749
Error	94.237	167	0.564		
Total	2909.000	171			
Corrected Total	100.526	170			

^a. R Squared = 0.063 (Adjusted R Squared = 0.046),
source: own elaboration.

Finally, the following question was related to behaviors of checking the validity of green claims (also a 5-point Likert scale ranging from 1 to 5) *“When a company communicates about a “green” product using the notion of ecology, do you look to see if the product is greener than average?”* Surprisingly, only 33.4% of Poles and 26.4% of the French answered this question positively. This indicates that a high level of awareness did not go in line with a high level of responsible behavior.

Relationships between variables

To check the relationship of ecological attitudes with intentions and the relationship between intentions and behaviors, we verified three hypotheses outlined before. Hypothesis 1 about a positive relationship between ecological attitudes and behaviors related to environmental protection (checking the validity of firms’ green claims) was supported (Table 4).

Table 4. Linear regression model of the relationship between ecological attitudes and behaviors of checking “green” claims, including respondents’ gender and nationality

Model Summary ^b					
Model	R	R-square	Adjusted R-square	Standardized error of assessment	Durbin-Watson statistic
1	0.442 ^a	0.195	0.180	1.075	2.032
Coefficients ^a					
Model 1	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.987	0.387		2.643	0.009
Is it important to you to consume products from a company that takes environmental and social factors into account and communicates on them?	0.497	0.094	0.386	5.267	<0.001
French females	-0.584	0.181	-0.240	-3.220	0.002
French males	-1.229	0.274	-0.344	-4.493	<0.001

^a. Predictors: (Constant); “Is it important to you to consume products from a company that takes environmental and social factors into account and communicates on them?”; French females; French males ^b. Dependent variable: “When a company communicates about a ‘green’ product using the notion of ecology, do you look to see if the product is really greener than average?” (Three outliers removed). Note: stepwise method of including variables.

We have found that the importance of choosing products from pro-environmental companies is significantly positively related to checking the validity of “green” claims, but—as it can be seen in the regression model—French respondents, both males, and females, declared to perform the verification behavior less frequently on average than the Polish respondents.

Second, we verified hypothesis 2 concerning the lack of greenwashing acceptance among consumers with ecological attitudes. Analyzing correlations, we found weak-to-moderate negative correlations between an intention to stop buying the “unfairly” promoted product and three expressions of environmental attitudes, that is, the willingness to do something for the environment ($r = -0.343$), importance of choosing the environmentally aware companies ($r = -0.324$), and the willingness to check if the corporate claims of environmental responsibility are true ($r = -0.208$). However, the linear regression model contains only two of these attitudinal variables as significant predictors because, due to multicollinearity issues, the third attitudinal variable was removed (i.e., the willingness to check if the corporate claims of environmental responsibility are true). The nationality and gender of respondents were not significant predictors in this model (Table 5). According to the results of linear regression (Table 5), hypothesis 2 is supported.

Table 5. Linear regression model of the relationship between ecological attitudes and propensity to buy products made by companies practicing greenwashing

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Standardized error of assessment	Durbin-Watson statistic
1	0.462 ^a	0.213	0.203	0.753	2.006
Coefficients ^a					
Model 1	Unstandardized Coefficients		Standardized Coefficients		t
B	Beta				Sig.
Std. Error					
(Constant)	5.067	0.340			14.899
Do you think you are someone who is willing to make an effort to do something for the environment?	-0.287	0.087	-0.260		-3.292
Is it important to you to consume products from a company that takes environmental and social factors into account and communicates on them?	-0.257	0.073	-0.278		-3.517

^a. Predictors: (Constant); "Is it important to you to consume products from a company that takes environmental and social factors into account and communicates on them?"; "Do you think you are someone who is willing to make an effort to do something for the environment?"

^b. Dependent variable: "If you learn that a company is greenwashing, will you continue to buy from them?" Five outliers were removed. Note: stepwise method of entering variables.

Finally, an ANOVA analysis was conducted to verify hypothesis 3 about the ecological attitudes and preference for "green advertisement" (Table 6). There were differences in choosing the green versus the "functional" advertisements between the groups of people varying in their intentions to make efforts for the environment.

Table 6. Ecological attitudes and choosing advertisement types

Descriptives					
Do you think you are willing to make an effort to do something for the environment?					
	N	Mean	Std. Deviation	Std. Error	
“Green” advertising	103	4.14	0.793	0.078	
“Functional” advertising	67	3.91	0.712	0.087	
Total sample	170	4.05	0.768	0.059	
ANOVA					
Do you think you are willing to make an effort to do something for the environment?					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.064	1	2.064	3.554	0.061
Within Groups	97.560	168	0.581		
Total	99.624	169			
Robust Tests of Equality of Means					
Do you think you are willing to make an effort to do something for the environment?					
	Statistic ^a	df1	df2	Sig.	
Welch	3.719	1	151.573	0.056	
Brown-Forsythe	3.719	1	151.573	0.056	

^a. Asymptotically F distributed.

Source: own elaboration.

Respondents who selected "green" advertising expressed, on average, somewhat higher willingness to make an effort for the environment compared to those who selected "functional" advertising (the difference was slightly above the significance level of $p \leq 0.05$, Table 6).

DISCUSSION

The study aimed to compare the ecological attitudes, intentions, and behaviors of consumers from two different countries. As it showed, the studied French respondents in the 18–25 age group are more pro-environmentally focused than the Poles, although when it comes to checking the validity of firms' green claims, they declare to do it less frequently than the Poles. The more substantial skepticism of the French toward the sustainable strategies of large companies makes them reluctant to trust any marketing claims of the companies.

The French also admit more frequently that choosing products from environmentally responsible producers is essential. Their high ecological awareness level might result from greater exposure to companies' CSR communications and government messages related to environmental care. This is because widespread greenwashing practices started around 15 years ago in France, and the official guidance concerning greenwashing has been in place since 2012 (ADEME, 2012).

As the literature points out, spontaneous awareness of the need for environmental care and awareness of the greenwashing phenomenon is more likely for consumers with experience with these topics (Jeong et al., 2014). For example, the social practice theory emphasizes the practical aspects and experience preceding the behavior (Ali, 2021). As we showed, the greenwashing incidents occurred in France almost a decade earlier than in Poland. This made the French sensitive to environmental claims, but also, trying organic products for a long time made the French buyers convinced to repeat such purchases.

On the contrary, the finding that Poles, more than the French, are focused on the primary function of products than the potential ecological aspects can be explained by the fact that currently, ecology is not one of the first concerns in the Polish economy and society (La Presse +, 2018). The highest spending levels in Poland concern primary needs (food, clothing), and the spending on "lifestyle needs", for example, entertainment, has decreased in 2022 compared to 2020 (PWC Polska, 2023). Polish consumers are considering the prices of goods as the primary decision-making factor (38% of Poles claim sales promotions are the main purchasing factor), and the "ecological" attributes are not as important as before.

As for the hypotheses about relationships between ecological attitudes, intentions, and consumer behavior, all of them were supported. In addition, the French nationality was also a significant predictor of checking the corporate green claims' credibility (but, as it was stated earlier, with a smaller frequency). This finding shows that French society has had more exposure to greenwashing; thus, there is widespread knowledge that firms can do it. Also, support for relationships between ecological attitudes and checking green claims among these Generation Z consumers testifies that this is an environmentally aware and active group. At the same time, as the studies from Lithuania (Pileliene and Tamuliene, 2021) and Spain (Govender and Govender, 2016) showed, the pro-environmental attitudes of European consumers do not necessarily lead to behaviors.

Lithuanian consumers are highly environmentally conscious and have positive attitudes toward organic products but have yet to make immediate plans to purchase green products. Probably these are perceived as too expensive (Pileliene and Tamuliene, 2021). Similarly, Kita et al. (2021) showed, on a large sample of Slovak consumers, that their environmental awareness is high. Still, the sustainable consumer activities are less frequent (apart from women and older consumers).

An earlier study conducted in Belgium and Poland by Roozen and De Pelsmacker (2000) evaluated the importance consumers placed on the characteristics of environmentally friendly products and consumer eco-friendly behavior. It also showed that eco-friendly attitudes did not necessarily translate into actual conduct. Summing up, this study provides ground for treating young consumers as advocates of environmental responsibility. They are more aware of sustainability challenges, than the rest of the population and thus can act as an influencing group. Nevertheless, they will only become a group of intensive users if they have a stronger motivation for purchases of such relatively more expensive goods.

The results of testing H3 about the relationships between ecological attitudes and the green ad preference show that people who have chosen "green" advertising are generally more aware of its environmental impact and selected it partly because of this. However, many say they prefer this version because it appears to be more environmentally friendly, but point out that they need to "dig deeper" to verify its reliability. This finding is similar to the one concerning Danish society (Pedersen, 2023; Thorgesen, 2021), which shows a low level of trust toward ecological messages. Other studies show that Central European consumers' involvement in purchasing detergents increases with their income (Matušínková and Zapletalová, 2021). Therefore, in a low-income group of students, where the involvement in purchasing detergents is low, the preference for green advertisements probably has a low impact on choosing the actual products.

CONCLUSIONS

The study has shown that young Polish consumers have similar attitudes to those from Western Europe, and the studied group displayed a similar pattern of relations between attitudes, intentions, and behaviors as consumers from other Central and Eastern European countries. All three hypotheses are supported by significant relationships between ecological attitudes, intentions, and behaviors, that is, relationships are significant and in the hypothesized directions. These findings testify to the existence of a regional market segment of European consumers from Generation Z who react similarly to green marketing claims and reject the greenwashing actions.

The post-transition market of Poland has not been exposed to sustainability policies for as long as the Western European one. Thus, the consumers are less environmentally aware and pay less emphasis on environmental efforts. But, surprisingly, the level of declared ecological behavior is higher in Poland than in the mature market of France, where consumers have been exposed to ecological messages for a longer time. Despite the stronger legal protection of consumers in France against greenwashing, the studied respondents are less active in the actual greenwashing prevention (checking the validity of firms' green claims) than the Poles are.

The studied relationships are weak or moderately weak, implying that actions (taken by companies, NGOs, or governments) aiming to create ecological attitudes and behavioral intentions in consumers' minds will result in pro-environment behaviors. However, one should not expect such attitudes' strong and immediate influence on behaviors. Yang and Chai (2022) found that when the environmental awareness of the individual members of society is improved, it is easier for enterprises to directly obtain the support of consumers through a green marketing strategy. Thus, the producers and marketers aiming their activity at the young customer segment can treat it as a powerful influencer group within the still need-to-be ecologically educated societies. However, they should expect ecological attitudes first and only later purchases, which depend strongly on the cost factors.

Our findings regarding advertising relate especially to the detergents and everyday hygiene products, which are purchased frequently and with low customer involvement. For such products, ecologically aware consumers choose "green" advertisements more frequently. Nevertheless, as it was shown, this pre-purchase behavior does not necessarily lead to later purchases. Moreover, as Nabivi (2021) found, in this customer segment, the social media advertisements containing "green" messages and images are more effective than regular, static advertising messages.

There are variables not included in our study that hinder or weaken the relationships between ecological attitudes and behaviors. Some of these variables are proposed in the models of TRA and TPB. They include social norms, values, and individual beliefs, which must be considered essential in expressing sustainable behaviors and sustainable consumption. The other variables influencing the studied relationships, like consumers' incomes or cost of purchases, should also be included in further research. Another limitation of our study is related to the small sample size and the fact that we had access to a sample of respondents who have been selected on a convenience basis. Further research should be done on larger, diversified, and probabilistic samples of respondents and include those variables proposed by TRA, TPB, and self-regulation, which were not included in our study.

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