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MARKETING AND SUSTAINABILITY: CONSUMER PERCEPTIONS AND MARKETING STRATEGIES APPLIED TO GREEN MARKETING

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Abstract: Due to the importance of the topic of sustainability today, this study addresses the strategies and concepts associated with green marketing. Topics such as segmentation, identifying sustainable market segments, marketing mix management and communication challenges regarding the relationship between consumers' willingness to pay more and sustainability are covered. The present study aims to analyze consumers' perceptions and willingness to purchase sustainable products and inherently adopt sustainability causes. The study highlights the sociodemographic profile of those who adopt sustainable practices in their daily lives. The analysis and processing of the primary data collected (n= 74) focuses on a univariate and multivariate descriptive analysis. From the results obtained, and for the present sample, it is possible to conclude that there is a high predisposition and positive attitude towards purchasing environmentally friendly products. Furthermore, on the one hand, gender has an influence on the degree of concern for the environment and the belief that our actions have an impact on climate change, on the other hand, age has no influence on attitudes and beliefs regarding to the environment.

Keywords: Green marketing, Greenwashing, Sustainability.

INTRODUCTION

Nowadays consumers are much more concerned about environmental sustainability than before. According to the report *Healthy & Sustainable Living – A Global Consumer Insights Project* (GlobeScan, 2019), issues related to the environment are among the main concerns of the Portuguese people, second only by concerns about extreme poverty in the world. Governments around the world are carrying out various programs to combat climate change. In Portugal, we have the example of Portugal 2030, whose

climate change is one of the points addressed in the program.

Environmental sustainability has become a central topic of debate in society, both nationally and globally. Therefore, brands have increasingly adopted green marketing strategies. It is difficult to name a clothing brand that, at this moment, does not have at least one collection positioned on the market as being sustainable, car brands that do not have a range of electric vehicles or large multinationals that do not have a social responsibility program that does not pass through environmental sustainability. In all sectors of activity we can always see companies that apply, in some way, green marketing strategies.

Studies show that there is a gap between people's intentions to live healthily and sustainably and their actual behavior (GlobeScan, 2019). The present study aims to understand this phenomenon and contribute to the adaptation of marketing concepts to green marketing. The aim is to understand and deepen this phenomenon, studying consumer sensitivity and willingness to purchase so-called ecological or green products and inherently adopt the causes of sustainability. The study highlights the sociodemographic profile of those who adopt sustainable practices in their daily lives.

The article proceeds as follows. Firstly, it deepens knowledge on the topic of green marketing and a related marketing mix. Secondly, the methods implemented in this study are presented and the data collection process is clarified, examining and discussing the results obtained. Finally, conclusions and implications for future research are drawn.

LITERATURE REVIEW

GREEN MARKETING STRATEGIES, *GREENWASHING* AND SEGMENTATION

Green marketing can be defined as a strategy that focuses on creating recognizable environmental benefits where groups or individuals have their needs and desires satisfied through an approach that minimizes environmental impact (Firdiansyah et al., 2021). In short, it is the definition and implementation of a marketing-mix strategy based on principles of environmental sustainability.

Green marketing brings many benefits to companies, namely improving the image of a product or service and the corporate brand, as well as having a positive impact on business performance (Firdiansyah et al., 2021). Nevertheless, there are some challenges that a green marketing strategy faces. These are the difficulties that consumers have in understanding the environmental benefits of products (Kotler & Keller, 2019), environmental awareness and knowledge. Consumers who have environmental awareness and knowledge are more predisposed to buy and use sustainable products (Sharma, 2021). There are also other situational factors that will impact the purchase of green products, which we must take into account when formulating a green marketing strategy, such as the store environment, the behavior of employees at the point of sale and the product's own attributes (Sharma, 2021).

In terms of actions that companies must avoid when implementing a green marketing strategy, *greenwashing* stands out. *Greenwashing* can be defined as a set of tactics that deceive consumers regarding the environmental practices and benefits of a company or product (Xiao et al., 2021). *Greenwashing* has a negative impact on brand

loyalty, however, this impact also depends on the consumer's moral dissociation, normally the lower the moral dissociation the greater the impact (Xiao et al., 2021).

Market segmentation divides a market into well-defined groups, with a market segment consisting of a group of customers who share a similar set of needs and desires (Kotler & Keller, 2019). According to Kotler and Keller (2019), we can segment the market according to geographic variables (countries, cities, districts, neighborhoods and other geographic units), demographic variables (age, stage of life, gender, income, generation, culture, among others) and psychographic variables, where consumers are divided into different groups based on psychological/personality traits, lifestyles or values. Finally, Kotler and Keller (2019) also point to behavioral segmentation as another possibility. In behavioral segmentation, consumers are divided into groups according to their knowledge, attitude, use or reaction to a product.

Several studies were analyzed in order to define different segments in the market in relation to sustainability. In terms of demographic segmentation, there is no consensus on the extent to which there is a relationship between age, gender, education and attitude or behavior towards the environment (Do Paço et al., 2009). The concern with identifying and understanding who the green consumer is and what their characteristics are began in the 1970s. There was a belief that the profile of the green consumer would be young women, with higher incomes, who lived in urban areas and who had a higher level of education, however there was never a consensus on this profile, as many other studies found little relationship with demographic characteristics (Pivetta et al., 2020).

THE GREEN MARKETING MIX

PRODUCT

In a green product strategy, the objective is to develop a product that is as least harmful to the environment as possible (Sharma, 2021). In order for a company to be able to create a sustainable offer, innovation is necessary, which can occur either in product design, packaging, or in other marketing processes (Sharma, 2021). In terms of packaging, it is beneficial from a sustainability perspective that excessive packaging is removed, or that recyclable materials are used (Solaiman et al., 2015). Some authors also warn that a sustainable product is a product that is sustainable not only in terms of the materials it is composed of, but also in terms of many other variables, such as the production process and packaging (Mahmoud, 2018). Other authors propose adopting the 5R concept (repair, recondition, reuse, recycle and remanufacture) (Abzari et al., 2013). In short, a green product must be sustainable in its production process, the materials must be recyclable or cause as little damage as possible to the environment, packaging must be minimized to what is strictly necessary in order to reduce trash and waste and, Finally, the product must be kept in circulation on the market for as long as possible until it can no longer be reused, repaired or reconditioned, thus ending up recycling the product and using some parts of it to produce other products.

COMMUNICATION

The objective of promotion in green marketing is the same as that of “traditional” marketing, that is, to promote and enhance the product, in this case the promotion of green products (Sharma, 2021). Green labels, or sustainability certificates, are an added value, especially for those consumers who are

Some authors propose the segmentation of sustainable consumers based on psychographic characteristics. These are: (1) “The uncommitted” who are individuals normally aged 18 to 34 whose education is relatively high (secondary and higher education) with an income between €500 and €1000 and live in urban environments; (2) we also have “The green activists”, a segment made up of individuals aged 25 to 34 and 45 to 54, made up of people with a high level of education, normally working in more qualified jobs and having a higher level of income. high; (3) finally, we have “The undefined”, a segment made up of older individuals with lower levels of education than other segments (Do Paço et al., 2009). Other authors propose a similar segmentation. Kotler and Keller (2019) propose the following segmentation of the sustainability market: (1) “Genuine greens”, a segment composed of individuals with a more activist attitude; (2) “Not me greens”, a segment that expresses attitudes very favorable to the defense of ecology, but which, however, does not have much action and attitudes; (3) “Go-with-the-flow greens”, which are a public that practices some environmental practices, but only the easiest ones. (4) “Dreams greens”, a segment that is very concerned about the environment, but does not seem to have the knowledge or resources necessary to act; (5) “Business first greens”, this segment understands that the environment is not such an important concern and companies are doing their part to help; (6) finally, the “Mean Greens”, a segment that claims to be informed about environmental issues, but does not express attitudes or behaviors in defense of ecology.

inclined to buy green products, but who have not yet made the decision (Sharma, 2021). When we are planning the communication strategy within the scope of green marketing, we must be careful so that consumers do not understand that the company is greenwashing, the objectives must be very well defined (Solaiman et al., 2015). Marketers have had a major problem with green communication as consumers do not trust a company when it claims to be sustainable (Solaiman et al., 2015). A good way to overcome this problem is to use green labels, as consumers trust labels from external companies or organizations more than advertising from the brand itself.

DISTRIBUTION

In distribution, making the offer more sustainable involves reducing the carbon footprint inherent to the logistics process (Solaiman et al., 2015). Logistical activities include order processing, storage, stock management and transportation (Kotler & Keller, 2019). It is proposed by the authors that retailers have part of the responsibility in verifying brand messages that say their products are sustainable (Solaiman et al., 2015). In order to reduce the impact of distribution on the environment, there are some actions that can be taken, these are: (1) develop a centralized distribution method that creates advantages for the environment, such as a decrease in the number of vehicles in circulation and the decrease in the number of shipments; (2) have a set of policies that allow reducing pollution from vehicles that transport products; (3) strengthen environmental awareness in companies and parties involved in the transport contract (Abzari et al., 2013). Other authors also propose (4) instead of selling a product imported to a given country, it can be licensed for local production, thus reducing the long distances that products travel, resulting in a positive impact on CO₂

emissions (Solaiman et al., 2015). Briefly, logistics is the distribution activity that causes the most impact on the environment and, in order to reduce the impact that this activity has on the environment, we must reduce the number of vehicles in circulation as much as possible, we must have means of transport that are more efficient and, finally, we must prioritize local production in order to reduce the distance between the producer and the distributor.

PRICE

According to GlobeScan (2019), 57% of Portuguese people say they are willing to pay more for environmentally friendly products, however, around 75% say companies must not charge either socially or ecologically responsible products and 74% say companies must provide more affordable products to facilitate healthier and more sustainable lives. In other words, the majority of Portuguese people say they are willing to pay for a sustainable product, but they do not see the practice of companies charging more for green products in a positive light.

Green products have been sold on the market at a higher price than “normal” products, this is due to the increased costs of modifying production or recycling processes, but also because companies perceive that consumers are willing to pay more for a green product (Solaiman et al., 2015). There is a discrepancy between what consumers say and what the consumer’s actions actually are (Solaiman et al., 2015). Consumers say they are willing to pay more for green products, but their actions say otherwise (Solaiman et al., 2015). Most consumers will only be willing to pay a premium price if there is a perception of additional value in the product (Mahmoud, 2018). The fact that the product is green is something that adds value, but this will not be the determining factor for purchasing

the product (Mahmoud, 2018). A higher price creates barriers to the growth of green products and influences consumer willingness to pay for green products (Firdiansyah et al., 2021).

In short, it is necessary to be careful when setting the price, as consumers are not actually willing to pay more for a product whose only differentiating characteristic is sustainability. In order to charge a higher price we must create other differentiating characteristics, whether through design, superior performance, features, flavor, among others (Mahmoud, 2018).

EMPIRICAL STUDY

OBJECTIVES AND METHODOLOGY

The present study aims to understand the target audience's attitudes towards sustainability, purchasing habits and consumption of sustainable products. Seeking to meet the outlined objectives, two types of sources were used in this investigation: primary and secondary. With regard to primary sources, the convenience sampling technique was used to collect data and a questionnaire survey was used, administered online. The structure of the questionnaire consists of different questions including: sociodemographic characterization, level of concern and opinion about the impact of human action on the environment, habits and purchasing behaviors of sustainable products. To analyze the sociodemographic profile of the respondent, three variables (gender, age and educational qualifications) are used, which are among the most frequently treated in similar academic studies.

The obtained data were analyzed using Jamovi statistical program, using univariate and multivariate statistical methods. Table 1 summarizes the main methodological elements of this study.

Time base	Cross-Section
Unit of analysis	Residents in Portugal
Sampling type	Convenience
Sample	74
Data collection	Online questionnaire survey
Data collection dates	May 2022
Data analysis	Univariate and multivariate

Table 1: Methodological summary of the study.

Source: Own elaboration

PRESENTATION AND DISCUSSION OF RESULTS

The sample obtained (Table 2) consists of 74 individuals. In terms of age, the sample includes individuals between 18 and 54 years old. We can also state that the vast majority of respondents are female (78.4%), are up to 34 years old (71.6%) and have high levels of education.

	Frequency	%
Gender		
Feminine	58	78.4
Masculine	16	21.6
Age		
18-24 years old	34	45.9
25-34 years old	19	25.7
35-44 years	10	13.5
45-54 years old	11	14.9
Education		
Basic education	2	2.7
High school	20	25.7
Post-secondary education	3	4.1
Graduation	36	47.3
Postgraduate/master's/doctorate	15	20.3

Table 2: Sociodemographic characterization.

Source: Own elaboration

Table 3 provides a descriptive analysis of several relevant issues in the present study. Likert-type scales from 1 to 10 are used.

Regarding the question "On a scale of 1 to 10, how concerned are you about environmental sustainability?", where 1 represents not at

Variables	Percentage			Average	Standard deviation
	Less than five	Five or six	Greater than six		
Concern for environmental sustainability	4.1	17.6	78.5	7.82	1.78
Impact of your actions on climate change	13.5	19.0	67.6	7.23	2.21
Concern about the chemical composition of tissues	17.6	29.7	52.7	6.47	2.47
Importance given to national/local production of the products it purchases	8.1	21.7	70.2	7.16	1.95
Importance you attribute to the environmental sustainability of a brand	8.1	20.3	71.6	7.36	1.99

Table 3: Descriptive analysis of the level of environmental concern.

Source: Own elaboration

all concerned and 10 extremely concerned, the number of respondents who gave answers between 7 and 10 represent the majority of responses (78.5%), that is, the majority of respondents are concerned about environmental sustainability (Figure 1). The mode was 8.

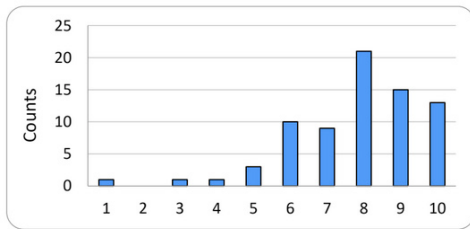


Figure 1: Level of concern with environmental sustainability.

Source: Own elaboration

Regarding the question “On a scale of 1 to 10, what value do you attribute to the impact of your actions on climate change?”, where 1 represents none and 10 high, 67.6% scored 7 to 10, considering that their actions have an impact on the issue of climate change.

On average, respondents rate concern about the chemical composition of tissues at 6.47. The majority of respondents gave answers between 7 and 10 (52.7%), which means that the majority of respondents are very concerned about the chemical composition of products. Regarding the importance given to national/local production of the products purchased, positive responses (7-10)

represent the majority of responses (70.2%). The average response is 7.18. Regarding the importance given to a brand’s environmental sustainability, positive responses (7-10) represent the majority of responses (71.6%). The average response is 7.36.

Figure 2 shows the high predisposition and positive attitude towards purchasing environmentally friendly products. In fact, in both questions, the majority of respondents answered yes, that is, the majority of respondents believe that purchasing items resulting from sustainable production techniques are part of the solution and they are also willing to pay more for a friendly product of the environment.

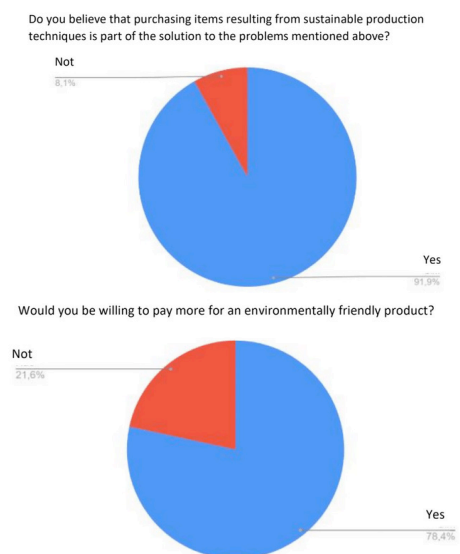


Figure 2: Purchasing sustainable products.

Source: Own elaboration

The Mann-Whitney U test is then used to determine whether the previous statements in Table 4 are influenced by gender.

Variables	Female Average	Male Average	One-sided p-value
Concern for environmental sustainability	8.05	7.00	0.034*
Impact of your actions on climate change	7.53	6.13	0.014*
Concern about the chemical composition of products	6.76	5.44	0.058
Importance given to national/local production of the products it acquires	7.21	7.00	0.474
Importance you attribute to the environmental sustainability of a brand	7.47	6.69	0.175

Table 4: Mann-Whitney U – variables versus gender.

* p-value < 0.05

Source: Own elaboration.

From Table 4 we can conclude, with a significance level of 5%, that women are more concerned with environmental sustainability and understand that their actions have an impact on the environment. As for other issues, we cannot say that they are significantly influenced by gender.

The Kruskal-Wallis Test, a non-parametric version of the one-way anova test, was applied to determine whether age has an influence on the different variables (Table 5).

Variables	18-24	35-34	35-44	45-54	P value
Concern for environmental sustainability	7.74	7.79	7.3	8.64	0.343
Impact of your actions on climate change	7.29	6.84	7.20	7.73	0.722
Concern about the chemical composition of tissues	6.44	5.68	6.60	7.82	0.126
Importance given to national/local production of the products it purchases	7.03	6.84	7.9	7.91	0.223
Importance given to the environmental sustainability of a brand	7.15	7.26	7.10	8	0.652

Table 5: Kruskal-Wallis – variables versus ages.

*-p-value<5% **- p-value<1%

Source: Own elaboration

The Kruskal-Wallis Test shows that there are no significant differences between the four age groups present in the sample surveyed. Despite this, respondents belonging to the 45-54 age group gave the highest average scores across all variables.

CONCLUSIONS

This work covered topics such as what green marketing is, which in this case boils down to the application of marketing-mix strategies with a special focus on environmental issues and the difficulties that exist when formulating and implementing a green marketing strategy, namely the difficulty that consumers have in understanding the environmental benefits of products. This research work also made it possible to understand the benefits that green marketing provides to companies, namely improving the image of a product or service and the corporate brand, as well as a positive impact on business performance. Green marketing issues were addressed in the 4 Ps of marketing (*product, place, promotion, pricing*).

In the product *mix*, the issue of sustainability was analyzed in all processes inherent to the product (materials, packaging, production process) and also the issue of the 5Rs of reusing and reconditioning the product, extending its lifespan as much as possible. Some possible segments of sustainable consumption were suggested. In the communication it was mentioned that consumers do not trust the brand's messages regarding sustainability and that companies must, therefore, develop ways to overcome this problem. A possible solution is eco-labels as a way of instilling credibility to the brand and green products. In the distribution mix, it was seen that the biggest sustainability problems at this point come from logistics, so companies must find a way to reduce the carbon footprint of logistics activities (fewer vehicles in circulation, local suppliers and

more efficient and environmentally friendly vehicles). environment). Finally, on the issue of price, it must be noted that sustainability is not a factor that, in isolation, is sufficient to justify the practice of premium *pricing*.

With the empirical data, despite the limitation of the reduced and convenience sample, it was possible to verify that, in general, the respondents are concerned about the environment and environmental sustainability, they understand that their actions have an impact on climate change, they are concerned with the chemical composition of the products, they give importance to the national/local production of the products they buy and value a brand that is environmentally sustainable. In particular, in the sample collected, it is suggested that Portuguese women have a greater concern for the environment, understanding, to a greater extent, that their actions have an impact on climate change. The level of education has no influence on attitudes and beliefs regarding the environment, on the importance given to variables related to the product (chemical composition of products, national/local production, brand sustainability), on being willing to pay more for sustainable products and not the amount they are willing to pay for a sustainable product.

This article contributes to the theory by reinforcing the literature regarding the suggested high predisposition and positive attitude towards the purchase of so-called environmentally friendly products, despite the value-action gap according to which people do not act in accordance with their concerns or intentions (Whitmarsh et al, 2011). In the future it will be interesting to prove the existence of this gap in Portuguese society, understanding the effective practices and behaviors of the so-called green consumer. It is clear that consumers care more than ever about sustainability and the environment, which is one of humanity's biggest current concerns (GlobeScan, 2019). Brands have, for this reason, adopted green marketing strategies. However, the intentions demonstrated regarding health and sustainability tend to be different from actual behaviors (Juvan & Dolnicar, 2014), so in the future brands must integrate awareness movements into effective behaviors and not mere intentions.

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