

#### Research Paper

# Influence of sustainability on the purchase decision of products 1<sup>1</sup>

Submitted in 18, August 2022 Accepted 24, September 2022 Evaluated by a double-blind review system

# EYLEM BULUT<sup>2</sup> BERKIN YILDIRIM<sup>2</sup> AMÉLIA BRANDÃO<sup>3</sup> BRUNO MIGUEL VIEIRA<sup>4\*</sup> VICTOR TAVARES<sup>2</sup>

#### **ABSTRACT**

**Purpose:** This study discusses the question of whether the aspect of sustainability plays a role in the consumer's purchase decision about green purchase and behavior toward green products.

**Methodology:** Mixed methods research (combining elements of quantitative research and qualitative research) were used to answer the research question.

**Findings:** It was found that price awareness and brand awareness of customers have a great influence on their buying behavior for the sustainable product. Price awareness is the strongest element that influences customers' buying behavior. The results of the study show that a person who is aware of environmental concerns and has brand awareness of sustainable products has a higher preference in sustainable buying behavior.

**Originality:** This study indicates how customers will tend to buy green products and the way they are going to make decisions while purchasing a green product that they think is sustainable on purchase decisions and also eco-friendly. Environment friendly products are found to be more reasonable by the customers to respect the environment and the role of sustainability in the purchase decision.

This behavior that showed by customers found out that they are more conscious and careful about environment and ecological issues.

**Keywords:** Sustainability, green labels, green marketing.

#### 1. Introduction

Environmental concern among customers is an important phenomenon that is changing people's lives toward greater environmental awareness. The initiative to save energy by

<sup>&</sup>lt;sup>1</sup> This study was conducted under the project NORTE-06-3559-FSE-000164, co-funded by the Northern Regional Operational Program (NORTE 2020), Portugal 2020 and the European Union, through the European Social Fund (ESF).

<sup>&</sup>lt;sup>2</sup> ISAG – European Business School and Research Centre in Business Sciences and Tourism (CICET – FCVC), Portugal. E-mail: nubu0001@stud.hs-kl.de; berkin\_yildirim@outlook.com; vmtavares@isag.pt

<sup>&</sup>lt;sup>3</sup> University of Porto and CEF.UP and ISAG – European Business School. E-mail: amelia.brandao@isag.pt

<sup>&</sup>lt;sup>4\*</sup> Corresponding author. ISAG – European Business School and Research Centre in Business Sciences and Tourism (CICET – FCVC), Portugal. E-mail: bruno.miguel@isag.pt



turning off lights for one hour to avoid an ecological footprint, known as Earth Hour, is an environmental awareness event celebrated by international society. Among other benefits, the initiative helps accelerate the process of achieving a sustainable lifestyle for customers around the world. A sustainable customer is one whose purchasing decisions are influenced by environmental challenges (Shrum et al., n.d.). Similarly, "going green" refers to any activity that generates and facilitates commerce aimed at meeting human needs or desires with a minimum of negative impact on the natural environment, i.e., environmentally friendly marketing (Polonsky, 1994).

The idea of sustainable marketing is an attempt by a company or organization to manufacture, advertise, produce, and distribute products in a way that is gentle and environ-mentally conscious. Green awareness influences people's behavior in many ways, such as lower demands, changing inefficient and harmful buying habits and increasing preference for sustainable products, preference for solid waste, and various expressions that can symbolize environmental awareness of sustainability. Customers need to be in-formed about the products promoted in green marketing before they buy green marketing products. Proponents try to influence each of these decisions by providing information that can help with product evaluation. Therefore, it is important that customers have such environmentally conscious experiences that can truly influence the issue of sustainability. Previous studies have already conducted research on customers' perceptions or attitudes towards sustainable products.

The purpose of this study is to investigate the influence of environmental aspects, awareness of sustainable products, affordability, and brand awareness on customers' purchase decisions of sustainable products. This study helps to fill the empirical gap regarding customers' environmental awareness and sustainable purchasing behavior. The findings can provide useful information on sustainable development that will enable brands to promote sustainable customer behavior. In this context, the question of whether the aspect of sustainability plays a role in the purchase decision on environmentally friendly purchase and behavior towards environmentally friendly products is investigated.

For this purpose, in section 2, the literature review includes the formulation of five hypotheses based on existing research findings and academic literature. In section 3, are presented the mixed methods research used to answer the research question (combining elements of quantitative and qualitative research. In section 4, the results obtain from the quantitative and qualitative surveys are presented. The qualitative survey includes a one-to-one interview, in which the research question is discussed, more closely, and various groups of people from the quantitative survey are examined in more detail. Final-ly, in section 5, contains the conclusions.

#### 2. Literature Review

During the research, it became clear that the sustainability aspect of a product is becoming more important. The focus on sustainability is gaining importance and is becoming increasingly the focus of public attention due to climate change, the summer drought or demonstrations like Friday for Future. Scientists and international leaders have studied these issues in depth to find effective solutions for individual consumption and environmental protection. Green consumption has emerged today as one of the most important facets of environmental sustainability. Many businesses have now embraced their responsibilities to protect the environment. For example, the selection of raw materials is the first step in producing a green product. Companies use standard operating procedures



(SOPs) to eliminate raw materials that are not environmentally friendly to reduce their impact on ecological life. As a result, goods and manufacturing processes grow cleaner, and more businesses to "go green," realizing that they can cut pollution while increasing profitability. On the other side, Consumers who feel responsible consider how their purchases affect the environment and others (Chen & Chai, 2010).

As a result of this, people are becoming active and taking sustainability into account regarding their consumption. For example, a study of 2020 by Deloitte found that more than two-thirds of respondents favored eliminating single-use plastic and that this was the most popular way to promote sustainability. Buying brands with environmentally sustainable values ranked second, followed by reducing overall spending on new products and consuming meat and animal products (Szegedi, 2020). A similar trend is also confirmed by Statista. In 2017, the influence of sustainability on purchasing behavior was investigated. This study found that sustainability has an influence of 77 percent on food and 76 percent on household appliances (Tighe, 2020). With this data, it shows that if customers have sufficient knowledge and awareness about environmental concerns, they are more likely to spend money on the green products or have a favorable attitude regarding the consumption of green products. Consumers who are conscious of environmental concerns, on the other hand, don't consider the greater price of the items (Eneizan et al., 2019).

The Deloitte study also shows that aspects such as cost and comfort discourage consumers from going green (Szegedi, 2020). From another study, it can be seen that customers do not buy environmentally friendly products due to low quality and high prices. Here, it shows that consumers prefer products that they already know (D'Souza et al., 2006). Some of the consumers advocate purchasing and excel in their ecological life-style and participate in events to protect the environment. Here, consumers question the consequences of their private consumption and try to use their purchasing power to bring about social change, for example, by buying a green product. This makes ecological action or ecological purchasing behavior a complex form of ethical decision-making behavior (Joshi & Rahman, 2015).

This leads to different motives that induce a consumer to buy a green product. Consumer decisions are based on the altruistic behavior developed by Schwarz's norm activation theory. According to this theory, an action is taken when the perceived costs in terms of time, effort, and available alternatives are considered less detrimental. The theory is extended in that the factors such as social environment, culture, and action guidelines equally play a role regarding the values for sustainable behavior (Simões et al., 2022). It can be deduced that consumers are more willing to buy a green product if their own values are in line with it and thus it serves their self-interest. Therefore, it is important for companies to convey a stronger sense of self-interest when promoting their products (Mogaji et al., 2022, p. 23). The process of promoting products or services that are beneficial or less harmful to the environment is called green marketing. Green marketing includes aspects such as manufacturing environmentally friendly products, using environmentally friendly packaging for products, or changing sustainable business practices (Mogaji et al., 2022, p. 22).

A green product satisfies customers' needs without damaging the environment and adds value to a more sustainable world by using biodegradable materials and having a lower carbon footprint. Biodynamic or plant-based items are examples of sustainable products.

Multiple seals and certification marks imply that a product is sustainable in these products. Industry is responding to the sustainability trend, according to latest developments. Numerous marketing actions are directed at purchasers and include the component of sustainability. However, it is uncertain whether or not customers are affected in their purchasing decision (by being more likely to purchase the product). Companies should focus more on developing ecofriendly products to meet the needs of end customers while also allowing them to make long-term profits. The purchase price factor is an important consideration when implementing green practices as it has the greatest impact on the product costs and profitability of the company. To attain sustainability in green purchasing, companies now must take a proactive approach to enlighten retailers and customers about the benefits of using sustainable goods for the betterment of society (Arora, n.d.).

The benefits of raising awareness about green purchasing by companies to their customers is crucial for their strategies to sustain profit in the green market. With this knowledge, it's important to understand the relationship gap between consumers and companies. Because companies can evaluate the customers' behavior to learn about the target audience. With this information, companies can analyze their current approach and observe how it can be more effective to indulge their customers and mitigate the risks (Ahmed, 2019).

Previous studies have confirmed that the relevance of sustainability is increasing and that it is not a temporary trend. Literature and studies show that consumers act out of personal values or self-interest. However, it is not clear whether the action is focused on sustainability and whether consumers are influenced in their purchase decision. The purpose of this study is to find out whether sustainability actually has an influence on the purchase decision. The focus is on determining the different influencing factors such as values or attitudes as well as the effect on green marketing. For this reason, five hypotheses were formulated.

Hypothesis 1: The sustainability aspect is a relevant factor for the purchase decision.

Hypothesis 2: Income has an influence on the purchase of sustainable products.

Hypothesis 3: Consumers are more concerned about sustainability than in the past.

Hypothesis 4: People who care about the sustainability of a product pay less attention to price.

Hypothesis 5: Price has an impact on customers' green purchasing behavior.

# 3. Methodology

#### 3.1 Quantitative approach

In this study, the quantitative method was used to test the hypotheses. The survey yielded 96 responses, of which 90 were usable and included in the analysis after data screening, representing a valid response rate of 93.75 percent. It can be noted that the sample size is adequate, as according to Roscoe (1975), a sample size of 30-500 is considered satisfactory. Data collection was conducted over a one-week period (from April 20-27) using the random sampling method. Responses were drawn at random from students at public and private universities in Germany, the Czech Republic, and Portugal, and some

responses came from professionals in Portugal. Participants were asked to complete the questionnaire, which was designed as structured, closed-ended questions and consisted of three sections. Section A referred to the demographic data of the respondents. Section B asked respondents about their perception of environmental concerns, awareness of green products, price awareness, and brand awareness. Section C was related to consumers' purchasing behavior regarding green products. In this study, sections B and C were measured on a five-point Likert scale (1=disagree at all to 5=agree completely). The items were adopted and modified from a previous study by Norazah Mohd Suki (Suki, 2013). The computer program IBM SPSS Statistics version 28.0.1.1 (15) was used for data analysis. Multiple regression analysis was performed to examine the relationships between environmental awareness and consumer purchase decision.

#### 3.2 Qualitative approach

The one-to-one interview was also selected to answer the research question. A one-to-one interview is designed to assess the occurrence and behaviors of a particular subject (Barks, n.d.). The advantage of the one-to-one interview is that with the flexibility of the question-answer ratio, the results are more efficient. The selection of the one-to-one interview was made to complement the online survey. The focus of the online survey was to analyze the different influencing factors in connection with the purchase decision of a green product. The One-to-One Interview will be used to study and compare people from different generations and countries. The aim is to find out whether the influence of the purchase decision of green products differs depending on the country or age group.

#### 3.2.1 Data collection

The structure of the questionnaire is divided into different sections. At the beginning, the background information of the respondent is asked and then the three areas that were also previously asked in the online survey - Environmental concerns, Awareness of green products, price awareness, brand image and purchasing decision.

#### Table 6. List of questions

#### **Questions**

- 1. Environmental concerns: What do you think about the environmental issues? (Important, less packaging waste in the sores, responsibility for consumers)
- 2. Awareness of green products: What do you think about green products?
- 3. Price awareness: What do you think about the price from eco-friendly goods?
- 4. Brand image: Do you take care of the brand of a green product?
- 5. Purchasing decision: What is the reason to buy a green product? / What would be the reason to buy a green product?
- 6. Purchasing decision: Does your decision about green products depends on the product? (healthcare, skin care, food products)

The interview guide included several open-ended questions to ensure that interviewees could use their own vocabulary, which is what makes qualitative data most rich. The interviews lasted an average of 20 minutes and took place in private so that the

interviewees could not be interrupted and feel as comfortable as possible without other people being present.

#### 3.2.2 Research participants

Six people from different age groups and countries were selected for the study. The goal is to interview one person from each country and generation. The participants were selected according to the following criteria (1) gender, (2) age group, (3) nationality, (4) income, and (5) degree.

Here, the age groups were divided into segments (Kasasa, 2021):

• Generation Boomer: born 1946 - 1964

• Generation X: born 1956 - 1980

Generation Millenials/Y: born 1981 - 1996
Generation Digital Natives/Z: 1997 - 2010

The profile of the research participants is shown in Table 7.

Interviewee Generation Gender Degree type Age **Nationality** Income code Secondary 11 57 Boomer Female Turkish Don't Have School Advanced 1.600-2.500 29 Y **Technical** *I*2 Female German Euro College Bachelor Z *I3* 20 Female Romanian <500 Euro Degree 600-1.500 Bachelor *I4* 20 Z Portuguese Male Euro Degree 600-1.500 Master *I5* 23 Z Male Portuguese Euro Degree 1.600-2.500 Master Y *I6* 38 Male Italian Euro Degree

Table 1. List of interviewees

The sample is composed of six degree-seeking individuals from Portugal, Germany, Turkey, Romania, and Italy, as shown in Table 7. The average age was between 18 and 25 years old, with 50% men and 50% females. In this study, two sample strategies were utilized: convenience sampling, which is the most often used approach in qualitative research, and random sampling (Fahmy El-Sabaa et al., 2017). Throughout the procedure, the researcher ensured that the goal of a variety of features, namely students from various degree kinds, age, gender, and countries, was reached. As part of the confidentiality agreement, Table 2 shows the characteristics of respondents without exposing their identities.

#### 4. Results

#### 4.1 Quantitative Results



Table 1 shows the descriptive study of the demographic profile of the respondents. From the data collected in the demographic section, it can be seen that the average age of the respondents is between 18 and 25 years old (61.1%) and that female respondents are in the majority (54.4%) and male respondents make up 45.6%. 93.3% of the majority do not live in a partnership. In addition, 65.5 percent of the respondents have a college de-gree (bachelor's degree with 44.4% and master's degree with 21.1%) and 34.4 percent have a high school degree. Consequently, the majority of respondents were students (72.2%) and a smaller percentage were workers (27.8%). Regarding income, 24.7 per-cent reported that they have less than 500€ income, 29.2 percent have income between 600-1500€, 14.6 percent between 1600-2500€, 5.6 percent 2600-3500€ and 6.7 percent have over 3,500€. 19.1 percent stated that they have no income yet.

Table 1 The demographic profile of respondents

	Frequency	Percentage
Gender	1.1	
Male	41	45.6%
Female	49	54.4%
Age		
18-25 Years	55	61.1%
16-35 Years	29	32.2%
35-45 Years	6	6.7%
Maritual Status		
Married	6	6.7%
Single	84	93.3%
Education		
High School	31	34.4%
Bachelor's Degree	40	44.4%
Master's Degree	19	21.1%
Work		
Student	65	72.2%
Worker	25	27.8%
Income		
< 500 Euro	22	24.7%
600 – 1500 Euro	26	29.2%
1600 – 2500 Euro	13	14.4%
2600-3500 Euro	5	5.6%
> 3500 Euro	6	6.7%
I don't have income yet.	17	19.1%

#### 4.1.1 Reliability Analysis

A reliability analysis was performed to investigate the qualities of the measurement scales and the items that comprise the scales. Cronbach's coefficient alpha is used in reliability research to assess construct internal consistency. When Cronbach's alpha values exceeded.700, none of the constructions indicated reliability concerns (Hair Joseph et al., 2014). Cronbach's alpha was.794 for the price awareness component, according to Table



2. As a result, the survey instrument is trustworthy in assessing all constructs consistently and without random errors.

Table 2. Reliability Analysis

Variable	Number of Items	Cronbach's alpha
Consumer's Environmental Concerns	3	.837
Awareness of Green Product	3	.800
Awareness of Price	3	.846
Awareness of Brand	3	.794
Consumers Purchasing Decision	4	.780

#### 4.1.2 Correlation Analysis

We utilized correlation analysis to establish the extent to which the variables are connected. To analyze the relationships between the five variables, Pearson correlation analysis was utilized. The average score of the multi-items for a construct was used in the correlation analysis. The connections were found to be substantial when the value of r =0.50 to 1.0 or r = -0.50 to -1.0, according to the Lind research (Lind et al., 2012). Table 3 demonstrates that all variables were associated with each other at the 0.01 level using the correlation test, with values ranging from r = 0.350 to r = 0.526.

Table 3. Correlation analysis

	1	2	3	4	5
(1) Consumers' Environmental Concerns	1				
(2) Awareness of Green Product	.269**	1			
(3) Awareness of Price	.494**	.352**	1		
(4) Awareness if Brand Image	.369**	.464**	.301**	1	
(5) Consumer's Purchasing Decision	.350**	.545**	.572**	.526**	1

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

Each variable's mean, standard deviation, skewness, and kurtosis are depicted in Table 4. All of the objects had skewnesses ranging from -.724 to -.440, which is less than 2.0. Similarly, the values for kurtosis vary from -.608 to -.527, which is much less than the cut-off value of 10. The skewness and kurtosis are both less than the stated number, indicating that the scores are close to a "normal distribution" or "bell-shaped curve."

Table 4. Mean, Standard Deviation, Skewness and Kurtosis of variables

Mean	Std. Deviation	Skewness	Kurtosis



Consumers' Environmental Concerns	3.5444	.94868	531	608
Awareness of Green Product	3.8037	.94663	724	022
Awareness of Price	3.7889	1.03912	-1.135	.735
Awareness of Brand Image	3.4148	.92315	487	195
Consumers' Purchasing Decision	3.4583	.96370	440	527

### 4.1.3 Relationship between Green Awareness and Consumers' Purchasing Decision

To examine the association between customers' environmental knowledge, green product awareness, pricing, and brand image and their green product purchase choice, a multiple regression analysis was performed. There were four hypotheses generated. The results are listed in Table 5 and shown in Figure 1. The corrected R<sup>2</sup> was 0.500, indicating that the four variables can explain 50% of the variance in customer purchasing decisions.

Table 5. Relationship between green awareness and consumers' purchasing decisions

	Unstandardi	zed Coefficient	Standardized Coefficient		
Variables	В	Std. Error	Beta	Т	Sig.
Consumers' Environmental Concerns	030	.091	030	333	.740
Awareness of Green Product	.283	.089	.278	3.183	.002
Awareness of Price	.373	.083	.402	4.498	<.001
Awareness of Brand Image	.299	.092	.287	3.242	.002

Adjusted R<sup>2</sup> .500

The model's estimated regression equation is written as follows:

Y = .135 + -.030X1 + 0.278X2 + 0.402X3 + 0.287X4

Where:

Y = Consumers' Purchasing Decision

X1 = Consumers' Environmental Concerns

X2 = Awareness of Green Product

X3 = Awareness of Price

X4 = Awareness of Brand



Figure 1. The results of the full model

Consumers' Environmental Concerns  $\theta_{1}=.030$ Awareness of Green Product  $\theta_{2}=0.278$ Consumers' Purchase Decision

Awareness of Price  $\theta_{3}=0.402$ 

The results in Table 5 and Figure 1 corroborated that consumers' environmental concerns insignificantly influenced their purchasing decision of green products ( $\beta 1 = -0.30$ ; t-value = -0.333; p > 0.05). Thus, H1 is not supported, signifying that customers' environmental concern do not influence their purchasing decision of green products as to keep the environment safe. Which found that consumers are concerned about the environment. Next, H2 substantiated that consumers' awareness of green product is significantly influenced their purchasing decision ( $\beta 2 = 0.278$ ; t-value = 3.183; p < 0.05). Respondents' awareness of green products has effects in their purchase of green product though they have knowledge of the products. The results of multiple regression analysis for H3 as presented in Table 5 and Figure 1 indicated that consumers' awareness of price emerges as the first important factor, which significantly affected their purchasing decision of green products ( $\beta 3 = 0.402$ ; t-value = 4.498; p < 0.05). Thus, the significant relation between consumers' awareness of price and the effect on their purchasing of green product has been visible. Results for H4 show that consumers' awareness of brand image is significantly related to their purchasing decision of green products and disclosed a significant result ( $\beta 4 = 0.287$ ; t-value = 3.242; p < 0.05). H4 is supported, implying that awareness of brand image with green marketing elements could influence consumers' green-purchasing decision. The results of the estimated coefficients indicated that consumers' awareness of price image is the strongest factor, compared to the other three independent variables, which has a positive influence on consumers' purchase. They use product brands with green elements as the primary sources of information in identifying green products. Green brands could evoke their positive emotions towards influencing a green-purchasing behavior.

#### 4.2 Quantitative Results

The interviews were recordings, documented, transcribed, and then translated into English for certain languages. Content analysis interpretation was performed on the qualitative data. This is the most frequent approach for descriptive qualitative research. Content analysis seeks to uncover common concerns in data as well as the primary themes that reflect the gathered perspectives. In the appendix you can find the whole interview of all interviewees. Table 8 shows the most important features in summary. Hereby was gathered data separated into two categories to understand the impacts. For this reason, primary data that collected via interviews were tested in PSPP software after code scheme



created. An inductive approach to the qualitative data was undertaken to identify the new themes.

**Table 6. Positive and Negative Impacts** 

	Environmental Concerns	Awareness of Green Product	Price Awareness	Brand Image	Purchasing Decision
I1	✓	<b>√</b>	<b>√</b>	X	<b>√</b>
<b>I2</b>	✓	✓	X	✓	✓
<b>I</b> 3	X	X	X	X	X
<b>I</b> 4	✓	X	X	X	✓
<b>I</b> 5	✓	✓	X	✓	✓
<b>I</b> 6	✓	X	X	X	✓

The visualization of the one-to-one interview in the following figure shows that Purchasing Decision and Environmental Concerns are considered to be the biggest influencing factors that have a positive impact on the purchase decision of green products. Brand Image and Price Awareness, on the other hand, are mentioned here as negative factors. Therefore, these factors prevent the respondents from buying the products.

Figure 2. Percentages of influencing factors

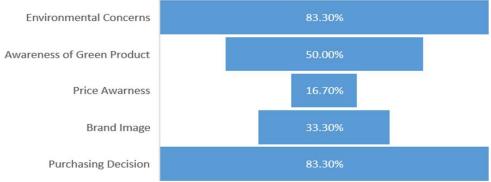


Figure 3 displays a word cloud extracted from the notes that are included in records. The words green products, environment, mindfulness, food brand, skin care and supermarket are clearly in focus.



Figure 3. Word cloud based on one-to-one interview



The qualitative survey has shown that there are some differences in the respondents. Here it can be seen that, for example, the interviewee from Romania (13) has no influence on the purchase decision of a green product in all aspects that were marked as influencing factors by us. In the interview, it became clear that the person had not dealt with green products much. Comparing this to the male person from Portugal (14), who is in the same generation, there is a significant difference. Both interviewees belong to Generation Z, the generation that is defined as the generation which has grown up with the Internet and mobile devices (Adigiconsult GmbH, n.d.). The comparison shows that the aspects "Environmental Concerns" and "Purchasing Decision" have an influence on person 14 and not on person 13. One reason for the low interest of person 13 could be that in Romania the trend of sustainability is not yet as advanced as in Portugal. Further-more, it is said that Generation Z only concentrates on their own personal goals, which makes them known as lone fighters and individualists. This may be more pronounced in the case of person 13 from Romania. In addition, income could also play a role. Interviewee 13 has an income of less than 500 euros, while interviewee 15 has an income of between 600 and 1,500 euros. Here, it was also noted in the interview that the prices for green products are too high.

Comparing the generations Y with each other, it becomes clear that the respondent 12 from Germany shows more interest in green products than the respondent 16 from Italy. For respondent 12, everything except the price plays a role. For respondent 16 from Italy, only the Environmental Concerns and Purchasing Decisions play a role, which have a negative impact on the purchase decision. For Generation Y, instead of status and prestige, the focus is on the enjoyment of work, freedom, self-fulfillment and leisure time (Adigiconsult GmbH, n.d.).

In the case of the person (11) from Turkey, it can be seen that for the Generation Boomer in all areas role in the purchase decision except the brand image plays and thus has an impact on the purchase of a green product.

In conclusion, differences between generations and countries could be seen in the interview. Here, the influencing factors play a significant role in the purchase decision of a green product. Possible reasons for this could be that younger generations are more concerned with the issues of sustainability, while older generations are less concerned with them. In addition, the trends in the different countries play a role. For example, the topic of sustainability occupies a position in many areas in Germany, while in other countries, such as Romania, it plays a subordinate role.



Apart from the generation and nationalities, it can be seen that the influence of price plays a significant role for all respondents. It can be said that green products are too expensive for most of them.

#### 5. Final considerations

This study analyzed the influence of environmental aspects, awareness of sustainable products, price and brand awareness on customers' purchasing decisions. According to the data obtained and analyzed, it can be seen that price awareness and brand aware-ness of customers have a great influence on their buying behavior for the sustainable product. Price awareness is the strongest element that influences customers' buying behavior. The results of the study show that a person who is aware of environmental concerns and has brand awareness of sustainable products has a higher preference in sustainable buying behavior. In this regard, it is an inevitable conclusion that companies producing sustainable products need to develop and apply an emotional sustainable brand awareness strategy that strongly promotes the sales of sustainable products, giv-en the increasing demand in the market for environmentally friendly products.

Brands must adopt a new method to clearly communicate information about sustainable products and green labels to improve consumer satisfaction and increase awareness of the sustainable products they purchase. An interesting introduction of sustainable products requires that the information be advertised, which needs to be reinforced by a plan that appeals to Generation Y. Customers must be able to clearly distinguish between sustainable and non-sustainable products based on the brand. In addition, the pricing of sustainable products must be economical and appropriate to stimulate purchasing behavior.

This study contributed to previous research by providing a theoretical framework for understanding the effects of environmental issues, sustainable product awareness, pricing, and brand awareness on customers' green product purchase decisions. Therefore, the results of this study complement previous research on customers' environmental awareness and sustainable purchasing behavior.

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# **Appendix**

# Appendix 1. Online Questionnaire

	Query on social democratic data
1.	Gender Female Male
2.	Age <ul> <li>&lt; 18 years</li> <li>18 - 25 years</li> <li>26 - 35 years</li> <li>35 - 45 years</li> <li>&gt; 45 years</li> </ul>
3.	Marital Status  Married  Divorced  Widow  Single
4.	Education Level High School Bachelor Degree Master Degree PHD
5.	Living status Student Worker Education Unemployed
6.	Earn per month (gross)  < 500 Euro  600 - 1.500 Euro  1.600 - 2.500 Euro  2.600 - 3.500 Euro  > 3.500 Euro  I don't earn money yet.

I feel more comfortable buying product from a brand that has a green image and

A strong brand image of a green product gives me the feeling that the product is more

Companies have created an innovative and new image for green products to raise awareness of environmental protection.

sustainable.

sustainable.

ISSN 2183-5594

Perception of environmental concerns, awareness of green products, price and brand image 7. On a scale (from 1= strongly disagree to 5= strongly agree) please rate your perception of environmental concerns.\* 5 1 2 3 4 Environmental issues are an important matter of urgency. Environmental issues are the responsibility of the consumer. There should be less packaging waste for processed foods. 8. On a scale (from 1= strongly disagree to 5= strongly agree) please rate your awareness of green products. 1 2 5 3 4 Companies should develop and offer environmentally friendly products to promote the sustainability of the products. By buying a green product, I indirectly influence the environmental protection. I tend to buy green products that are packaged in an environmentally friendly way. 9. On a scale (from 1= strongly disagree to 5= strongly agree) please rate your price awareness. 2 5 I would choose eco-friendly goods to protect the environment if the price was the same. I am willing to pay more for environmentally friendly and sustainable products. I would change my lifestyle and buy more green products if the price of green products is cheaper. 10. On a scale (from 1= strongly disagree to 5= strongly agree) please rate your brand image. 1 2 3 4 5





#### Purchasing decision towards green products

11. On a scale (from 1= strongly disagree to 5= strongly agree) please rate your purchasing decision.

paroridoning decision.	1	2	3	4	5
I choose environmentally friendly, sustainable products.					
I prefer to buy green products, even if they are more expensive than the non-green and non-sustainable ones.					
Climate change has changed my buying behavior.					
There is more choice of green products than before.					

#### Appendix 2. Results of One-to-One Interview

te rviewe.	terviewee Background Information	A: Environmental concerns: What do you think about the environmental issues? (important, less packaging waste in the sores, respons ibility for	B: Awareness of green products: What do you think about green products?	C: Price awareness: What do   D. Brand image: Do   E. Purchasing decision: you think about the price from jour Libe care of the What is the reason to bus  eco-friently goods?   Product? What would be product?   Product? What would be product?   Product Product   Pro	D. Brand image: Do you take care of the brand of a green product?	y a green in the product?	F. Purchas ing decision Does your decision about green products depends on the product? (healthcare, skin care, food products)
	Age: 57 Gender: Female Nationarally: Turksh Leve of education: Secondary school certificate Income: Idon't earn money	haverithrought about this issue, but is still make sure that most of my probuter is the important for the future. There should are green for health reasons and I be less packaging in the stores.	S Z		No I don't know the brands and pay more attention to the content description.	Health reason	Yes, I pay more attention to green products in my food choice
	Age: 29 Gender: Fernale Marionanshy: German Lava of education: Advanced technical college Income: 1,600 - 2,500 Euro	Utrink it is very important and I think it should Green products are important and I get more attention and more and more and more attention of them in the supermarket.	ø		No I don't know the brands and pay more attention to the content description.	I prefer green products for the care of 19 the environment and my health.	Yes, I pay more aftention to food products, but gradually Talso pay more aftention to skin care products.
	Age: 20 Genber: Female Nationarally: Romanian Lave of education: In baschefor degree Income: < 500 Euro	I doritknow, I haven't thought about it.	don't buy it.		No.	If it was lust as cheap as normal products.	would be more interested in skin care products than food products.
	Age: 20 Gender, Male Marionarially: Portiguese Lavel of odcusion: Bachebr degree Income: 800 - 1:500 Eur o	it is an important topic for our planet. In my opinion, we as consumers need to use less plastic products. Because plastic is annealful that nature itself so hard to recover from.	Il s good, but i don't use it. Because in it is expensive. Generally, in am processing set and bond scy-ferrolly produces. Because it is expensive products.	It is expensive. Generally, I am seeing during my market purchase tand I found eco-ifrendly products as a expensive products.	Generally not. Mostly I use the products that my friends mentioned or influence to me to buy it from the mentioned by them the mentioned	I think it is a good reason to buy green product to reduce carbon footprint for it out planet.	don't care about green products for Heafthcare and skin care but I care about The food products when it comes to my neath issue.
	Age. 24 Gender, Male Natorarally; Portuguese Lavel of education: Mas ler degree Income: 800 - 1.500 Euro	it is an urgent top that humanly needs to lite good for environment and mining and add so bestilled Reads. By each still and add so bestilled Reads. The each control and add so bestilled Reads to see any other add so bestilled Reads and add so bestilled the add so bestilled the add so bestilled the add so t	to the heath, as stood maybe. Inthink is and affordable for other leads. But stood manage everyone Expensive the products are ground transportation, grean who seans infimum anger, appears everyon fought of the products one stood and the products costs are infigured.	ople t is	Usualy, yes. Because I prefer to buy a product from the brand that I know.	To have less impact on the environment. N	Sixely, yes Because   To have less impact on the environment   Yes, Independs on the protect. Intro lose refer toby a product refer toby a product when it comes to health care but and the lose of the last inches to the last inches and body products.
	Age: 38 Gerner: Male Gerner: Paly Leve of education: Master degree Income: 1:600 - 2500 Euro	It seems that next generations wilbe affected if there not going to be real decision made by the governments. So, it is important I would say.	Personally, I don't care about green products. But it can be good for the environment, maybe.	I don't check the price of the eco- friendy prices when I go to supermarket. But it can be high since it is a green product.	No, I don't. Because I don't buy green products. Evenil I dd, I don't recall.	Can be good for reducing the carbon- footprint.	Igenerally don't care if the products is green product.