![Católica Lisbon Business & Economics logo]

# Business of Fashion Sustainability Index:
An Analysis on Willingness to Pay,
Perceived Quality and Purchase Intention

Ana Maria Aguirre Murillo

Dissertation written under the supervision of professor
Sérgio Paulo de Jesus Moreira

Dissertation submitted in partial fulfilment of requirements for the MSc in
Management with Specialization in Strategy, Entrepreneurship & Impact, at the
Universidade Católica Portuguesa, 5th April 2023.

**Abstract**

*Business of Fashion Sustainability Index: An Analysis on Willingness to Pay, Perceived Quality and Purchase Intention*

Author: Ana Maria Aguirre Murillo

*Key words*: Sustainability index, fashion industry, willingness to pay, perceived quality, purchase intention, consumer behavior, Business of Fashion.

Textile, clothing, and fashion (TCF) industry is one of the most polluting and resource-consuming industries in the world, second only to the oil industry. In response to social and environmental issues in the fashion industry and pressure from various stakeholders, companies are addressing sustainability issues more than ever. The launch of the Business of Fashion Sustainability Index, which provides information about companies' performance on sustainability goals, is an effort to raise consumer awareness of the practises behind the products they buy.

The purpose of this study is to gain a better understanding of how the BoF Sustainability Index influences consumer purchasing decisions for fashion items. More specifically, an experimental procedure was used to test the effects of BoF Sustainability Index information (high, low, and no information) on fashion product consumption, namely willingness to pay, perceived quality, and intention to purchase footwear. In addition, the effects of demographic variables such as gender, generation, and nationality were also considered.

According to the results, the sustainability index influences consumers' willingness to pay, perceived quality, and purchase intention. In general, attitudes toward SI were very positively received by respondents and considered beneficial. The socio-demographic variables used in this experiment were key to understanding the effects of the manipulated variables on the dependent variables.

**Abstrato**

*O Índice de Sustentabilidade na Indústria da moda: Uma análise da vontade de pagar, da qualidade percebida e das intenções de compra.*

Autor: Ana Maria Aguirre Murillo

**Palavras-chave:** Índice de sustentabilidade, indústria da moda, disposição a pagar, qualidade percebida, intenção de compra, comportamento do consumidor, Business of Fashion.

A indústria têxtil, de vestuário e moda (TCF) é uma das indústrias mais poluentes e consumidoras de recursos do mundo, só depois da indústria do petróleo. Em resposta às questões sociais e ambientais da indústria da moda e à pressão de várias partes interessadas, as empresas estão abordando questões de sustentabilidade mais do que nunca. O lançamento do Índice de Sustentabilidade (Business of Fashion Sustainability Index), que fornece informações sobre o desempenho das empresas em relação às metas de sustentabilidade, é um esforço para conscientizar os consumidores sobre as práticas por trás dos produtos que compram.

O objetivo deste estudo é obter uma melhor compreensão de como o Índice de Sustentabilidade BoF influencia as decisões de compra dos consumidores de itens de moda. Mais especificamente, um procedimento experimental foi usado para testar os efeitos das informações do BoF Sustainability Index (alto, baixo e nenhuma informação) sobre o consumo de produtos de moda, ou seja, disposição a pagar, qualidade percebida e intenção de compra de calçados. Além disso, também foram considerados os efeitos de variáveis demográficas como gênero, geração e nacionalidade.

De acordo com os resultados, o índice de sustentabilidade influencia a disposição a pagar dos consumidores, a qualidade percebida e a intenção de compra. Em geral, as atitudes em relação à o Índice de Sustentabilidade foram recebidas de forma muito positiva pelos entrevistados e consideradas benéficas. As variáveis sociodemográficas utilizadas neste experimento foram fundamentais para entender os efeitos das variáveis manipuladas sobre as variáveis dependentes.

**Table of Content**

# Table of figures

**Table of tables**

**Abbreviations**

ATS Attitude Towards Sustainability

ATSI Attitude Towards Sustainability Index

CSR Corporate Social Responsibility

Gen Generation

PI Purchase Intention

Pref Preferred Conditions

PQ Perceived Quality

SA Sustainability Awareness

SI or BoF SI Business of Fashion Sustainability Index

WTP Willingness to Pay

# Chapter 1: Introduction

## 1.1 Background

One of the most polluting and resource-intensive businesses in the world is the textile, apparel, and fashion (TCF) sector (Pal, 2017)., contributes up to 10% of the world's carbon dioxide emissions and 20% of the water waste generated worldwide (UNECE, 2018). In the last 15 years, apparel production has doubled due to a growing middle-class population and the popularity of fast fashion (Ellen MacArthur Foundation, 2017). In 2018, an estimated 13 million tons of clothing and footwear waste was generated in the U.S. alone, of which only 13% was recycled, 17% was incinerated, and 70% was sent to landfills (Environmental Protection Agency, 2019). For this, and other broader issues, the United Nations plan on global climate and sustainable development goals by 2030, to avoid catastrophic climate change, and to achieve broader social imperatives have all been the subject of numerous initiatives and commitments.

As a response for the sustainability issues reported in the industry, more than ever the top corporations in the world are considering environmental and social issues. In the 15th fashion industry's top firms' annual reports, mentions of sustainability have increased from 2015 to 2019 and are used to the same level as important financial words such as profit and growth. However, one of the biggest challenges companies faces is measuring the true impact of these efforts and making them comparable to others. On response to this difficulty, the Business of Fashion Magazine created the BoF Sustainability Index, which measure verifiable progress toward reaching sustainability goals in the fashion sector. This index aims to be transparent and reliable (Business of Fashion, 2021).

The implementation of the BoF Sustainability Index could be a helpful tool for educating consumers, raising consumer awareness, and providing companies with a standardized and fair sustainability qualification that shows their efforts and actual impact in this area and helps identify areas of opportunity. It is important to gain a better understanding of whether and how the BoF sustainability index influences consumers' purchase behavior. To measure this, the following variables of interest are going to be investigated: Willingness to Pay, Perceived Quality, and Purchase Intention.

## 1.2 Problem statement

The purpose of this study is to gain a better understanding of how the BoF Sustainability Index influences consumers' purchase decision in fashion items. More precisely, an experimental procedure was used to test the effect of the BoF Sustainability Index information (high, low and no information) on consumption of fashion products, namely, on the willingness to pay, perceived quality and purchase intention of footwear. Additionally, the effect of demographic variables such as gender, generation and nationality were also considered. To summarize the following is the problem statement and their consequently research questions.

**The problem statement:** Understanding the impact of the Business of Fashion Sustainability Index on the purchase decision process when buying footwear.

**Research questions**

**RQ1:** What is the impact of the BoF Sustainabiliy Index on consumers' Willingness to Pay, Perceived Quality, and Purchase Intentions when buying a fashion item?

**RQ2:** Does the influence of the BoF sustainability index change between different demographic groups?

## 1.3 Relevance

This research will focus on the study of consumer behavior when the BoF sustainability index is implemented in the purchasing process, because recently the interest in sustainability issues is increasing among all stakeholders and plays a fundamental role to avoid a social and environmental catastrophe by 2030. Fashion is fundamental in this issue due to its global dimension and cultural influence. Due to the lately creation of the index in 2021, there is not yet much research in this context. The BoF Sustainability Index could be a useful tool to help consumers make better-informed decisions and raise awareness, and to provide companies with a standardized and fair assessment in terms of sustainability, showing their efforts and actual impact in this area and helping them identify weak points in sustainability matters.

## 1.4 Research methods

This study involved implementation various research methods. The two main measurement research instruments were, qualitative interview, and experimental survey, to collect and analyze data. The preliminary interviews were key to build the experimental research. Additionally, the use of different tools and computer software, such R Studio, Canva, Qualtrics or Excel, were

required in order to build the experiment and analyze the primary data collected. The main dissemination channel was social media.

## 1.5 Dissertation outline

The outline of the dissertation consists of five main chapters. The introductory chapter first deals with the background of the research question and the problem, in addition there is brief information on the research methods and relevance. The second chapter is the literature review, which consists of an in-depth examination of the problem, the introduction of important concepts such as the sustainability index and its influence on the decision-making process. The third chapter is related to the methodology, where detailed information about the research design and methods are presented. Then, in the chapter analysis of results, the general consumption habits of consumers are explained in order to later explain the main effects on the dependent variables, willingness to pay, perceived quality and purchase intention. Finally, Chapter 5 presents the summary, implications, and conclusions. Here is a summary of the chapters:

- Chapter 1: Introduction.
- Chapter 2: Review of Literature.
- Chapter 3: Methodology (Research Design & Methods)
- Chapter 4: Presentation of Research (Results)
- Chapter 5: Summary, Implications, Conclusions (Discussion)

# Chapter 2: Literature review and conceptual framework

## 2.1 Sustainability problems in the fashion industry

Textile, clothing, and fashion (TCF) are one of the most polluting and resource-draining industries in the world, next only to oil, in terms of environmental impact. (Pal, 2017). According to the United Nations Environment Programme, the fashion industry is responsible for producing 20% of global water waste and up to 10% of carbon dioxide emissions worldwide, which is more than international flights and maritime shipping combined (UNECE, 2018).

A major environmental concern is the massive production of plastic-based fabrics such as polyester, a petroleum-derived plastic resin, that has replaced cotton as the backbone of textile manufacturing. Polyester market is expected to grow from $106 billion in 2022 to $174.7 billion by 2032 and production is projected to exceed 92 million tons in the next 10 years with an increase of 47% (Dottle & Gu, 2022). Polyester and other similar synthetic fabrics are a significant polluter, as it generates plastic microfibers during the washing process that end up in the ocean and threaten marine wildlife. In fact, the industry accounts for one-fifth of the 300 million tons of plastic produced globally each year and according to the U.S. Geological Survey, 71% of microplastics found in samples of river water came from fibers.

In the last 15 years, apparel production has roughly doubled, driven by a growing middle-class population worldwide, and in recent years the popularity of *fast fashion* has been an important factor contributing to the rise of this phenomenon (Ellen MacArthur Foundation, 2017), it is estimated that more than 50% of fast fashion produced is discarded in less than a year (Remy, Speelman, & Speelman, 2016). The average number of times a garment is worn before it is discarded has decreased by 36% compared to 15 years ago, but there are some critical examples such as the U.S., where garments are worn about a quarter of the global average, or China, where the use of fashion items has decreased by 70% in the last 15 years (Euromonitor, 2016).

The overproduction of goods in fashion companies and the short lifespan of clothing and footwear among consumers result in an enormous amount of waste. In 2018, an estimated 13 million tons of clothing and footwear waste was generated in the U.S. alone, of which only 13% was recycled, 17% was incinerated, and 70% was sent to landfills, usually located in Chile or Ghana (Environmental Protection Agency, 2019). According to the World Bank, textile imports in Latin America and the Caribbean have increased by 50% in the last 20 years, while in Chile has increased by 500% in that period, even though the population has only increased by 26%

(Pérez, Espinoza Pérez, & Vásquez, 2022). This huge increase has become an environmental problem due to ineffective waste management and consumer unawareness of the impact of clothing and footwear waste on the environment and local communities, turning the Atacama, the driest desert in the world, into a fashion graveyard.

The issues that the fashion industry is dealing with in terms of sustainability are extensive and not just related to environmental matters. The fashion industry's reputation for working conditions is not the best, as it has been associated with modern slavery and child labor. The production activities can be dangerous for workers due to the risky processes and the harmful substances used. In addition, high cost and time pressures at all levels of the supply chain usually result in poor working conditions with long hours and low pay (UNECE, 2018). In many cases, workers' wages represent a small fraction of what consumers pay for a fashion item, e.g., €0.18 is the pay to worker from a T-shirt that costs € 29, only 0.6% (Clean Clothes, 2020).

Another major concern is the lack of transparency in the fashion industry, as it is vital to achieving systemic change globally since it allows critical failures to be identified and held accountable to advocate for positive change that improves working conditions and reduces impacts on the environment, local communities, and a wide range of stakeholders. After analyzing 250 of the world´s largest fashion brand and retailers, Fashion Revolution found that despite significant improvements in terms of transparency in recent years, 50% of major brands still do not disclose information about their supply chain, 96% do not publish the number of workers in their supply chain who are paid a living wage, and 85% of brands still do not disclose their annual production volumes, despite growing evidence of overproduction and waste (Fashion Revolution, 2022).

## 2.2 The Business of Fashion Sustainability Index

The world's largest companies are taking environmental and social concerns into account more than ever before. From 2015 to 2019 references to sustainability in 15th fashion largest companies´1 annual reports have doubled and are used in the same extent as key financial terms such as profit and growth (Figure 1). Many initiatives and commitments have been made to respond to the social pressures, and to achieve the United Nations plan on global climate and sustainable development goals by 2030, to avoid catastrophic climate change, and achieve

---

[1] Kering, PVH Corp, Hermès, LVHM, Richemont, H&M Group, Levi Strauss & Co, Inditex, Gap Inc, Fast Retailing, Nike, Puma, VF Corp, Adidas and Under Armour.

broader social imperatives, but one of the biggest challenges companies' faces is measuring the real impact of these efforts and making them comparable to others. For this reason, Business of Fashion Magazine has developed the BoF Sustainability Index which aims to create a transparent and reliable benchmark to track clearly defined, measurable progress towards achieving sustainability goals in the fashion industry (Business of Fashion, 2021). Fashion plays an important role in this matter because of its global scale and cultural influence.

**NUMBER OF TIMES THE WORDS ARE MENTIONED IN THE FULL-YEAR REPORTS OF THE 15 COMPANIES**
(ANNUAL REPORTS 2015-2019)

SOURCE: BoF ANALYSIS, COMPANIES' ANNUAL REPORTS
2018 excludes VF Corp owing to a change in reporting periods.

*Figure 1: Sustainability vs financial terms*

The BoF Sustainability Index is based on a methodology (Figure 2: The Methodology Design) in which the 15th largest companies from three different sectors of the fashion industry - luxury, high street, and sportswear - were assessed against 338 metrics across six broad categories (transparency, emissions, water & chemicals, materials, workers' rights and waste) to measure the performance in 16 environmental and social targets. Companies' final score is the mean of 6 category score, calculated as a percentage, from 0% to 100% (Business of Fashion, 2021).
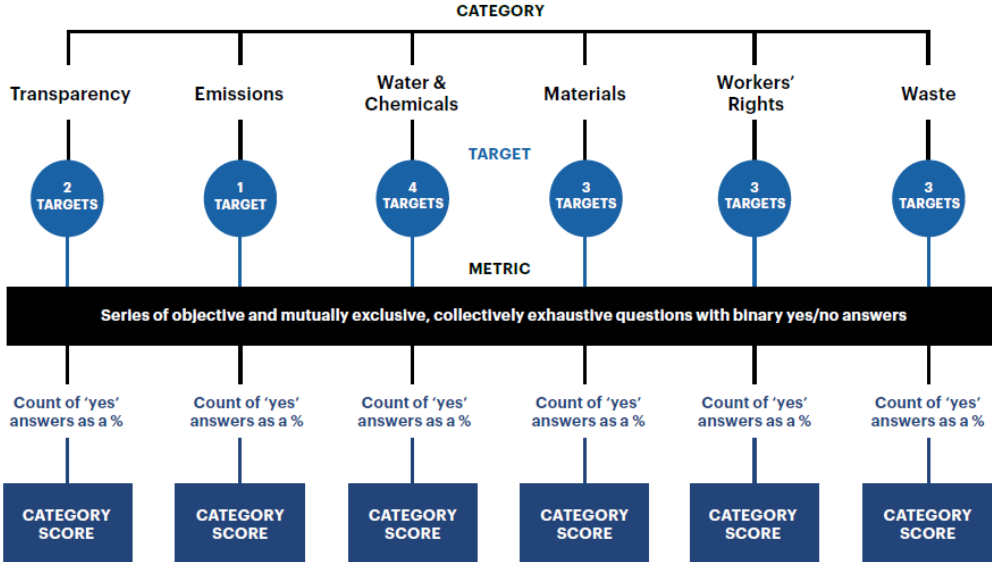


*Figure 2: The Methodology Design*

## 2.3 Factors that influence the consumer purchasing behavior in clothing and footwear

In order to understand the impact that the implementation of the BoF Sustainability Index could have on consumer purchasing decisions when buying fashion items, it is important to take a closer look at the main factors influencing this process.

The Theory of Consumption Values is a classic approach developed by Sheth, Newman & Gross in 1991 that defines five different values that influence consumer choice behavior: functional value, social value, emotional value, epistemic value, and conditional value (Lin & Yi-Hsuan, 2012). Since this research focuses on the fashion industry, a study headed by Mendel University of Agriculture and Forestry in 2008 identified quality, product attributes, design, necessity of need and price as the most influential factors in clothing and footwear purchase behavior (Stávková, Stejskal, & Toufarová, 2008). In the specific case of footwear purchasing behavior, it was found a positive impact of branding, also brand image, brand loyalty and brand association have a significant impact on consumer buying behavior (Ashraf, Naeem, & Shahzadi, 2017) .

In 2018, Achabou analyzed the influence of the perceived impact of corporate heritage in corporate social responsibility (CSR) efforts on consumer preferences in the case of brands with different CSR histories in the clothing and footwear sector in France. Two well-known brands were tested, Nike and Patagonia, the first having a short CSR history marked by crises and scandals, while the second had a long and positive CSR history. It was found that respondents mainly preferred Nike over Patagonia, despite the recognition of the social and environmental circumstances involved in the supply chain of the shoes they purchased (Achabou, 2018). This could be a sign that consumers are valuing recent efforts and commitments that companies are making in terms of sustainability above their less recent history.

## 2.4 The influence of the BoF Sustainability Index on the decision-making-process

Due to the increasing number of consumers doubting brands' environmental and social claims after greenwashing cases have occurred, it is difficult for companies to build a good reputation for sustainability (Dekhili & Achabou, M.A., 2014). In the specific case of clothing and footwear, this goal is even more difficult to achieve, as many of their products may be viewed as non-essential or excessive (Kim & Hall, 2015). This increase reflects the desire of companies to project a green image and benefit from higher prices for responsible products (Darnall, 2008).

**US CONSUMERS WHO SAY THEY WILL PAY MORE FOR PRODUCTS THAT HAVE THE LEAST NEGATIVE IMPACT ON THE ENVIRONMENT**

(PERCENTAGE OF RESPONDENTS REPORTING STRONGLY AGREE OR AGREE)
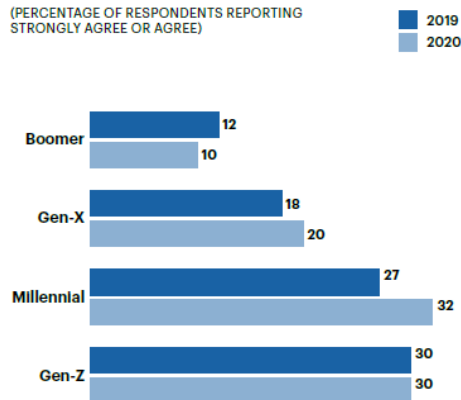
*Figure 3: Sustainable changing behavior*

In fact, recent studies recognized new patterns of consumer behavior, where new generations are starting to be more conscious about sustainability. According to Mckinsey & Company, in the U.S.,30% of Gen-Z are strongly agreeing to pay more for products that have the least negative impact on the environment, compared to only 10% of the Boomer generation in 2020 (Figure 3: Sustainable changing behavior). That is why it is vital for companies to adopt in their business model long-term sustainable practices.

The implementation of the BoF Sustainability Index could be a useful tool to help consumers make better-informed decisions and raise awareness, and to provide companies with a standardized and fair qualification in terms of sustainability, showing their efforts and actual impact in this matter and helping them to identify weaknesses.

## 2.5 The current study

The purpose of this study is to gain a better understanding of how the BoF Sustainability Index influences consumers' purchase decision in fashion items. More precisely, an experimental procedure was used to test the effect of the BoF Sustainability Index information (high, low and no information) on consumption of fashion products, namely, on the willingness to pay, perceived quality and purchase intention of footwear .

More specifically, price is classified as a key factor in the purchase of clothing and footwear (Stávková, Stejskal, & Toufarová, 2008) and, as it was exposed previously studies show the positive impact in willingness to pay for sustainable products. In this sense it is expect that *(H1) the BoF Sustainability Index influences consumers' willingness to pay*. Additionally, traditional product attributes such as, price, quality, and brand remain the major factors influencing sustainable purchase decisions (Sharma & Foropon, 2019). In fact, the quality of the product was identified as the most influencing factor when buying clothing and footwear according to research headed by Mendel University of Agriculture and Forestry in 2008 (Stávková, Stejskal,

& Toufarová, 2008). Derived from this, it is formulated that *(H2) the BoF Sustainability Index influences consumers´ perceived quality*.

When talking about purchasing intentions, social and environmental engagement have a positive effect on consumers´ purchasing decisions (Barone, Miyazaki, & Taylor, 2000). Also, Diamantopoulis, referred to environmental concern as main factor in the consumer decision-making process (Diamantopoulos, Schlegelmich, Sinkovics, & Bohlen, 2003). According to this, it is stated that *(H3) the BoF Sustainability Index score influences consumers´ purchase intention.*

According to the literature, age of consumers could have significant differences in behavior, since younger generation such as millennials and gen Z are prone to been influenced by sustainable products (Figure 3: Sustainable changing behavior) compared to boomers or Gen-X. In addition, Tian, Wang & Yang (2011) relate corporate social responsibility awareness to cultural, political, and economic development in different countries, then people's demographic background also influences the impact of CSR activities and behavior (Tiang, Wang, & Yang, 2011). In this study we will control for the effects of these demographic characteristics effect of the exposure to different BoF Sustainability Indexes. We expect that (H4) *the effect of the BoF Sustainability Index on willingness to pay, perceived quality, and purchase intention will interact with the demographic backgrounds* of the participants.
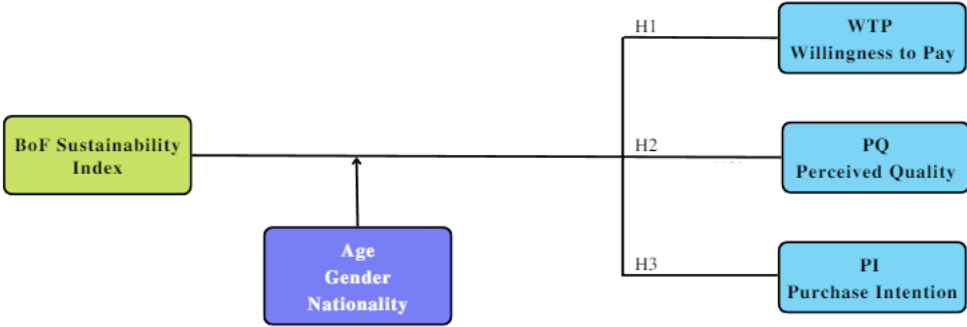


*Figure 4 Overview conceptual construct*

# Chapter 3: Metodology

## 3.1 Sample

The experimental procedure used to test the effect of the BoF sustainability index on consumer behavior for specific fashion products was the survey (Appendix 2), which collected a total of 202 responses. 127 of these were valid responses, and 75 participants were discarded due to incompleteness or invalid responses. The target of this study were adults located in America and Europe.

The majority of participants were from Colombia (69.3%), followed by Portugal, Germany, and Peru, with percentages of 11.8%, 7.9%, and 3.1%, respectively (Figure 5: Nationality Sample). The rest of the respondents were from other countries such as Brazil, Mexico, Spain, Austria, Canada, Venezuela, Argentina and France. On the other hand, 70.1% of the respondents are female, 29.1% are male and 0.8% belong to the third gender (Figure 6: Gender Sample).
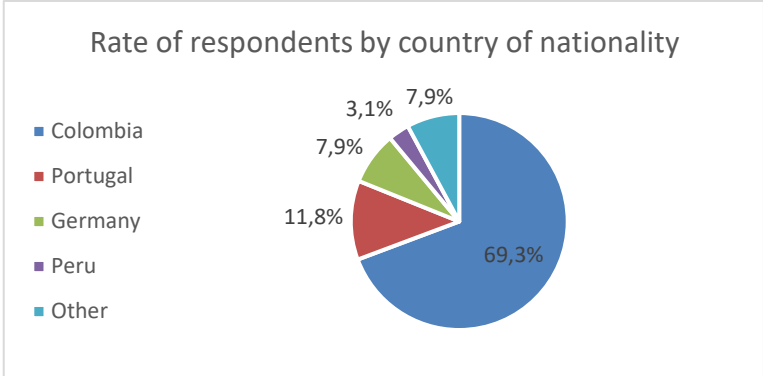


*Figure 5: Nationality Sample*
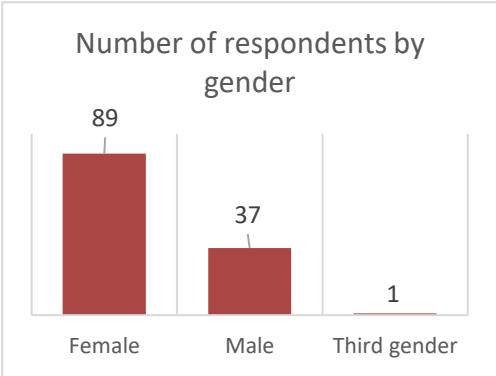


*Figure 6: Gender Sample*

Another demographic characteristic of the sample is the average monthly income and respondents' satisfaction with their current income. As can be seen from the following figures, most respondents earn less than €2500 and are satisfied with their current income.
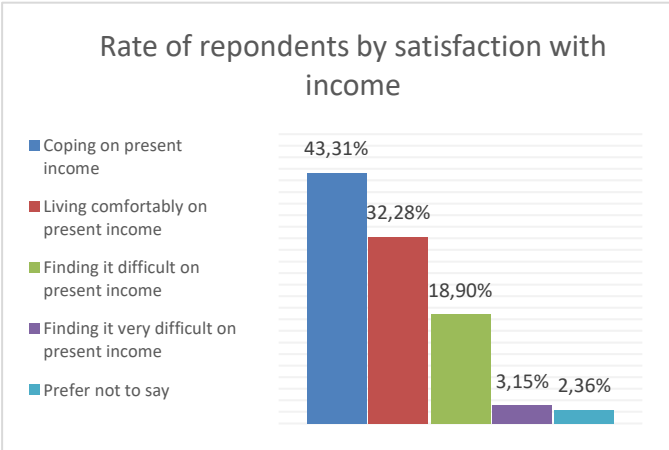


*Figure 8: Income Satisfaction Sample*
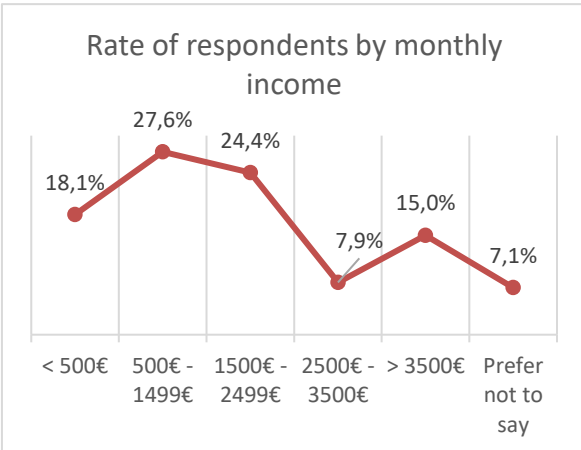


*Figure 7: Monthly Income Sample*

The sample is generally young, with 61.4% of participants younger than 34, but there are also enough older participants to allow comparison of behavior between different generations (Figure 9). Generation Z is the most represented in the sample at 37.01%, while Generation X and Millennials make up about 30%. Boomers are the generation with the fewest respondents ( Figure 10).
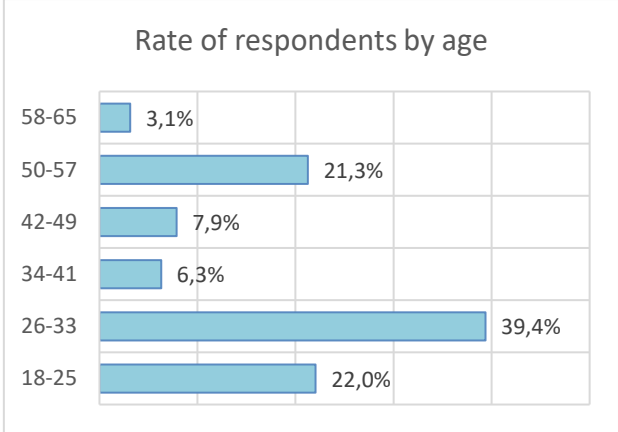


*Figure 9: Age Sample*
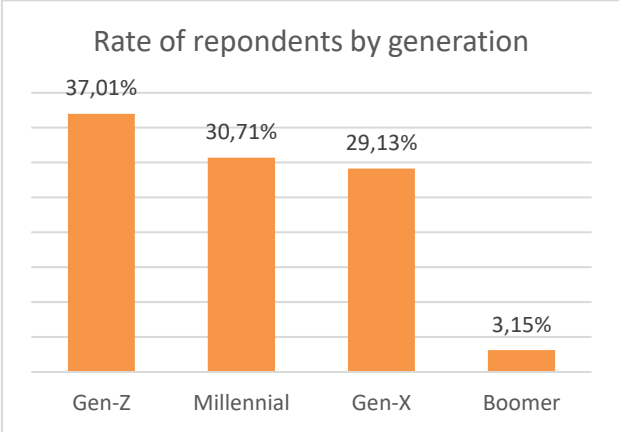


*Figure 10: Generation Sample*

To finish, the predominant areas of study of the participants are business and engineering, with 36.22% and 18.90% respectively. The following table shows the distribution of the data, according to the area of study (Table 1).

| Main area of study or work | Respondents | Rate |
|---|---|---|
| Business | 46 | 36,22% |
| Engineering | 24 | 18,90% |
| Arts or humanities | 8 | 6,30% |
| Economics | 8 | 6,30% |
| Architecture or Design | 7 | 5,51% |
| Medicine | 6 | 4,72% |
| Law | 5 | 3,94% |
| Social or Natural Science | 4 | 3,15% |
| Other | 19 | 14,96% |

*Table 1: Distribution of main area of study or work*

## 3.2 Procedure

This study consisted in the implementation of two measurement research instruments, interview and experimental survey, to collect and analyze data. The preliminary interviews were key to build the experimental survey that later was develop on the Qualtrics platform and published online between November 29, 2022 and January 18, 2023. The main dissemination channel was social media. To test the survey, a pre-test phase was conducted with 15 participants to identify errors and make the appropriate corrections to make the questionnaire as clear as possible for

respondents. Confidentiality and anonymity were assured in the introduction of the questionnaire to encourage respondents to answer truthfully and to avoid possible bias. The survey was administered in two different languages, English and Spanish, depending on the region of the participants, in order to allow the participation of people who are not proficient in English. The experimental survey was divided into six general categories: demographic characterization, advertisement, dependent variables, attention test, awareness and consumer behavior, and attitude towards sustainability index.

The first part of the questionnaire contains six questions about *sociodemographic characterization*, more specifically gender, age, nationality, monthly income, income satisfaction, and area of study or work. This would be valuable to analyze later whether there is a correlation between a social group and its influence on the attitude towards the implementation of the sustainability index.

In the second part, participants had to answer three questions related with their personal preferences regarding sneakers. Each question was associated with the following characteristics: Color, Sole, and Brand. Then, an *advertisement* for a pair of sneakers was shown, taking into account the participants' previous choices. Following the purpose of this experiment, which is to test whether respondents' preferences and sustainability index scores influence consumer behavior, six possible groups were randomly assigned between the display of preferred or non-preferred features and three possible sustainability index scores: high, low and not displayed. Each participant was only shown one ad of the next groups.

- **Group 1:** Preferred features + High sustainability index
- **Group 2:** Preferred features + Low sustainability index
- **Group 3:** Preferred features + No display of sustainability index
- **Group 4:** Non-Preferred features + Low sustainability index
- **Group 5:** Non-Preferred features + High sustainability index
- **Group 6:** Non-Preferred features + No display sustainability index

The ad included information regarding brand, name, years on the market, brief description of the sneakers, upper material, outsole characteristics, product code, BoF sustainability index score, BoF sustainability index description, and a reference image of the product showing the color, type of sole, and design. Randomization was used to collect a total of 17-25 of valid responses per group, and a minimum time of 15 seconds was programmed for participants to

carefully review the advertisement. On average, participants viewed the manipulated ad for 30.22 seconds before moving to the next question.

In the third section, respondents answered seven questions about three *dependent variables*: Willingness to Pay, Purchase Intention, and Perceived Quality. An *attention test* was then administered, requiring respondents to recall and select information from the advertisement. This information was used to verify the level of attention in the previous section. This section consisted of two questions, the first question was asked to all groups and consisted of selecting the correct attributes shown in the advertisement out of thirteen possible options, seven of which were correct. The second question displayed the sustainability index symbol without the score and groups 1, 2, 4, and 5 then had to select the correct value.

*Awareness and consumer behavior* was the next category. In this section, contestants answered questions about the average lifespan of the product, frequency of purchase, sustainable attitudes, and social and environmental awareness in the fashion industry. The purpose of collecting this information is to gain a better understanding of the respondents' behavior in the context of this experiment.

Finally, after an introduction to the BoF Sustainability Index and its role in the fashion industry, three questions were asked to gauge participants' attitudes toward the matter. The complete questionnaire could be found in the Appendix 1.

## 3.3 Research design

An experimental procedure was designed to test the effect of the BoF Sustainability Index and personal preferences on sneaker consumption behavior through the manipulation of an advertisement, with conditions randomly distributed among participants. It was necessary to conduct a qualitative study beforehand in order to define the product that should be used in the ads and what characteristics were most important for customers in the purchasing process. The following is a detailed explanation of the conditions and the process to build the experiment.

### 3.3.1 Preliminary qualitative interview

Previous studies have shown that people tend to be attracted to the features and brand of a product (Chen & Song, 2022). Qualitative interviews were conducted to gain a better understanding of the key features and brands that customers consider when purchasing fashion items. A total of 10 in-depth interviews were conducted via video call with 6 women and 4 men between the ages of 19 and 42 from 5 different nationalities. The interview was divided into 5

sections: Greeting, Demographic Information, Preferred Characteristics, Purchasing Behavior, and Sustainability Awareness. On average, the interviews lasted 32 minutes.

At the beginning of the interview, participants were welcomed, briefly informed about the study, and asked for their consent to record and use the data under anonymized and confidential conditions. After that, they were asked for some information about themselves such as age, occupation, nationality, etc. In the third section, in order to determine the product to use in the experimental procedure, contestants were asked about relevant attributes they liked and disliked from three pre-selected products: t-shirt, jeans, and sneakers.

In the purchasing behavior section, participants were asked questions about the main characteristics that items or brands must have when buying new clothing items for their wardrobe. Participants were also asked about the frequency of purchase of the three pre-selected items mentioned in the previous section and their preferred brands for each of these items. To gather data and ideas for the design of the advertisement, we asked the participants about an advertisement for clothing or sneakers that they could remember and why was it memorable.

The final part of the interview was to assess the participants' awareness of their attitudes towards sustainability when purchasing new products and their knowledge specifically about the fashion industry, and to determine the extent to which this does or does not influence their decisions.

The intention to include brand as one of the features for this study was very high from the beginning, as brand remains one of the most important factors influencing sustainable purchase decisions (Sharma & Foropon, 2019). However, the experimental model consisted of including two possible options for each of the features, and it was challenging to define only two brands that most people were familiar with, as there are multiple brands in the fashion industry. After analyzing the data collected in the in-depth interviews, sneakers were selected as the product to be used in the experimental design, the main reason was that most of the interviewees recognized two common preferred brands, Nike and Adidas, while for T-shirts and jeans, the frequency of common mentioned brands was lower or only one brand had more than 50% of preference.

Considering that sneakers were the selected product to be use on the advertising of the experimental survey, the following part will show the findings on this product and exclude the results of the other items such as T-shirt and jeans, which are considered irrelevant for this study.

The feature most frequently mentioned by respondents when asked about their favorite sneakers was color. Many of them specifically mentioned their preference for neutral colors like white and black and the monochromatic look. The next most mentioned characteristic was the design of the sneakers, with respondents giving some descriptions such as classic look, chic and sporty, or casual. The quality and type of sole were also mentioned. Some participants associated the quality with the leather material, and for the type of sole, some women indicated their inclination for platform sole, while a few men referred the importance of an airbag on the sole for athletic sneakers and preference for flat sole for casual sneakers.

In terms of purchasing behavior, several participants considered fit, price, functionality, versatility, durability, and quality as important attributes related to the item or brand when buying a new piece for their wardrobe. One of them mentioned the importance of buying from a responsible store, and other the aim to support national brands. The average number of items purchased per month was 2.15 and 9 out of 10 respondents purchase at least one item per month. The maximum estimated monthly purchases between respondents was 4.

On the last part of the interview, participants were asked about their awareness in sustainability matters, 60% of participants admitted to not paying attention to companies' social and environmental commitments when buying new products, while one of them mentioned using apps like GoodOnYou to check brands' sustainability scores in advance. On the other hand, almost all the contestants were aware of at least one ethical or environmental issue especially in the fashion industry and how this knowledge influenced somehow their purchasing behavior.

### 3.3.2 Conditions of preferred features

After analyzing the main findings of the preliminary interviews, sneakers were selected as the product for the experiment and color, sole and brand were identified as the most important characteristics. The condition of personal preference was set up with two levels: preferred features and non-preferred features. For each feature, participants could choose between two alternatives. In the case of color, contestants had a choice between darker and lighter tones, for sole, the options given were plane or with platform and finally, in the brand category, respondents had to choose between Adidas and Nike.

### 3.3.3 Conditions of Sustainability Index

The BoF sustainability index condition is a key component of this study because it allows us to evaluate the impact of implementing the sustainability index during a purchasing process. Three

levels were established: high score, low score, and no score display. The index was introduced in the lower part of the ad with an icon, a percentage, a scale, a color and a short description (Figure 11). A percentage of 90% was set for the high score and 15% for the low score. The color of the icon was also linked to the score, using green color for the high score level and red color for the low score level. Finally, the no score display level, worked as control group in this experiment.

**BoF Sustainability Index**
*Business of Fashion Sustainability Index (Scale 0%-100%)*
Indicates how the company is performing towards more environmentally and socially responsible business model, across six impact categories: transparency, emissions, water and chemicals, materials, workers' rights and waste.
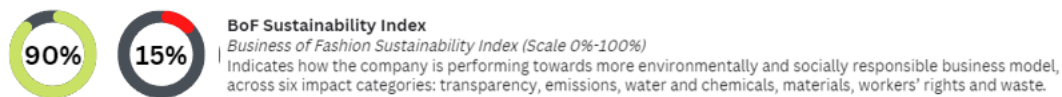
*Figure 11: Example of icons and description BoF Sustainability Index*

## 3.4 Dependent measures

Willingness to pay, perceived quality, purchase intention and attitude toward sustainability are the dependent variables of interest in this research. Through the implementation of different frameworks and methodologies, it was possible to measure their impact and evaluate the consumer behavior.

The direct approach formulated by Marbeau (1987) was the methodology used in this study to estimate willingness to pay. This approach consists of asking respondents directly for the maximum and minimum price for the product rather than asking for a set price (Breidert, Hahsler, & Reutterer, 2006). Below are the two questions asked to evaluate the WTP in the survey:

1. "Above which price would you definitely not buy the product, because you can't afford it or because you didn't think it was worth the money?
2. "Below which price would you say you would not buy the product because you would start to suspect the quality?"

Customer purchase intention and product quality were measured applying the methodology used by Dodds, Monroe and Grewal (1991) to study of buyers´ product evaluation. Five items from the above study were adapted for the present research. The following two questions were required to build the purchase intention indicator:

1. I would purchase this sneakers.
2. The probability that I would consider buying the sneakers is low.

Since the perceived quality of a product is the consumer's subjective judgment of its overall excellence or superiority (Yoo & Donthu, 2001), the following three questions were needed to build the willingness to buy or purchase intention indicator, including relevant key elements such as functionality or durability:

1. The likely quality of the sneakers shown would be extremely high.
2. The probability that the sneakers shown would be functional is very high.
3. The sneakers shown seem to be durable.

The previous two multi-item indicators were measured using the psychometric response Likert scale in which participants were asked to indicate their specific level of agreement to a statement of 5 points ranging from "strongly agree" to "strongly disagree."

In order to understand consumer attitudes toward sustainability, the bidimensional approach introduced by Batra and Ahtola (1991) was implemented in a 4-point scale. To answer the situation "For me, buying sneakers from a sustainable brand would be:", three items were used to form the indicator of attitude toward sustainability: useless/beneficial, unpleasant, pleasant, and expensive/cheap to answer the situation "For me, buying sneakers from a sustainable brand would be:".

The sustainability awareness indicator was measured using the Environmental Awareness Scale published by Yin, Gao & Xu (2013), which follows a four-point scale structure to indicate the level of knowledge about a particular statement ranging from "Not knowledgeable at all" to "Extremely knowledgeable" adapted from Likert scale. Finally, attitude towards the sustainability index indicator was measure using the Likert scale, in which respondents indicated their level of agreement with three statements on a 5-point scale ranging from "Strongly agree" to "Strongly disagree".

## 3.5 Validity and correlation

One of the mechanisms used to test participants' attention level was the attention test, which consisted of one or two questions that required participants to recall and select information shown in the advertisement. Depending on the group assignment, some of them were asked to select the exact BoF sustainability score. As a result, on average respondents selected about four correct attributes out of seven ($\mu = 3.9$, $\sigma = 1.6$) and only one incorrect attribute out of five ($\mu = 0.5$, $\sigma = 0.9$), which in general represents a reasonable level of attention. Brand was the most memorable attribute with a selection percentage of 82%, followed by outsole (70%), upper

materials (68%), model reference (58%), product code (41%), BoF Sustainability Index (38%) and years in the market (34%). On the other hand, 30% of respondents answered with the correct BoF sustainability index percentage for the high-scoring scenario (groups 1 and 5) and 43% of respondents recalled the correct value for the low-scoring scenario (groups 2 and 4).

Since validated scales were used for this study, remarkable reliability can be expected, and to measure the internal consistency of the variables, Cronbach's alpha was calculated. As can be seen below, almost all factors have satisfactory reliability with an alpha greater than 0.7. Perceived quality has the highest internal consistency at 0.83 and the overall scale has a reliability of 0.71. It is also important to note that one of the items in the purchase intention factor was reversed to provide an accurate reliability scale. For purchase intention (PI) and Attitude towards sustainability (ATS), variables with two items, the correlation test show a statistically significant correlation, with 2-tailed significance p-value < 0.05.

| Factor/Indicator | Number of Items | Cronbach's Alpha |
|---|---|---|
| Perceived Quality | 3 | 0.83 |
| Sustainability Awareness | 3 | 0.75 |
| Attitude towards BoF SI | 3 | 0.79 |
| All variables | 14 | 0.71 |

*Table 2: Cronbach Alpha*

In addition, after analyzing the data set, two observations were deleted because the responses to the willingness to pay section and the attention test showed nonattentive behavior.

# Chapter 4: Analysis of results

## 4.1 Main insights in consumer consumption and habits

According to the data collected, the most preferred features of sneakers by category among participants were plane sole (66%), light color (57%), and Adidas brand (60%). Similarly, most respondents chose the combination of the above three characteristics (26%), while the least common combination of features was sole with platform, dark color, and Adidas (6%). It is important to note that respondents were randomly assigned between the combination of preferred conditions and the combination of non-preferred conditions.

On average, participants indicated €36.14 as the lower limit for payment and €82.60 as the upper limit. The maximum amount participants were willing to pay for the sneakers was €350 and the lowest was €6. A new variable was introduced to calculate the average willingness to pay of the participants based on the mean between the lower (WTPDOWN) and the upper limit (WTPUP). As can be seen below (Table 3), the average willingness to pay was €59.37. On the other hand, perceived quality (PQ) and purchase intention (PI) were ranked on a scale of 1-high to 5-low, with relatively high PQ with a mean of 1.94, while PI was relatively low with a mean of 3.07.

```
========================================
Statistic    N   Mean  St. Dev.  Min     Max
----------------------------------------
WTPDOWN     125 36.144  32.069     6      250
WTPUP       125 82.600  55.961    16      350
AverageWTP  125 59.372  41.616  11.000  300.000
PQ          125  1.936   0.792   1.000    5.000
PI          125  3.068   1.151   1.000    5.000
----------------------------------------
```

*Table 3: Willingness to pay, Perceived Quality and Purchase Intention*

The average lifespan of sneakers for most of the contestants was two or more years (63%) and the most common purchase frequency was once every year (35%). Participants also found highly beneficial (ATS1) and pleasant (ATS2) to buy sneakers from a sustainable brand, both with a punctuation around 3.5 out of 4. In contrast, 2.28 was the mean for the relation of expensive – cheap (ATS3), from a scale of 1 to 4 respectively (Table 3: Willingness to pay, Perceived Quality and Purchase Intention

In terms of sustainability awareness (SA), participants are, on average, not very well informed about environmental and socially sustainable issues in the fashion industry, with a mean score of 1.98 out of 4 on a scale from 1- Not knowledgeable at all to 4- Extremely knowledgeable. Finally, the last section of the questionnaire included a brief explanation of the BoF

Sustainability Index and three questions to measure their attitude towards the Sustainability Index (ATSI). The result was positive, as the mean score was 1.86 out of 5 on a scale from 1-Strictly Agree to 5-Strictly Disagree, which means that in general respondents consider SI to be beneficial to consumers and a good purchase decision if the product has a high SI score.

```
========================================
Statistic  N  Mean  St. Dev.  Min    Max
----------------------------------------
ATS1      125 3.512  0.809     1      4
ATS2      125 3.560  0.734     1      4
ATS3      125 2.272  0.928     1      4
SA        125 1.984  0.712   1.000  4.000
ATSI      125 1.861  0.783   1.000  5.000
----------------------------------------
```

*Table 4 Attitudes towards sustainability, sustainability awareness and attitude towards sustainability index*

## 4.2 Test of the effect of BoF Sustainability Index

### 4.2.1 Willingness to pay

The variable WTP Average is analyzed on detail in this section. To start, the histogram (Figure 12) was useful to examine the distribution of the variable. The presence of an outlier was identified, however after taking a closer look at the observation, it was possible to check a high level of attention by the respondent (i.e., it was a not a multivariate outlier) and for this reason was keep it. On the other hand, previously some observations with a WTPUP and WTPDOWN value equal to 0 were deleted, because are considered not relevant. After making the respective changes, the total number of observations is 125. (N=125).



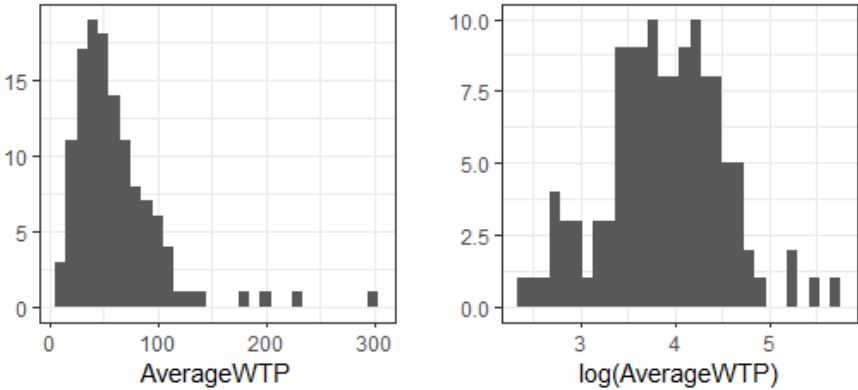*Figure 12 WTP Average Histograms*

Since the variable AverageWTP revealed a strong positive asymmetry, it was necessary to perform a transformation to a natural logarithm and through the Shapiro test it was possible to confirm that the values were approximately normally distributed (Figure 12). Since this study involves comparing groups, the same test was made into each level of relevant variables such

as preference, scoreSI, and generation, getting with a p-value > 0.05, statistically proving the assumption of normality. Additionally, the homogeneity of variance can be assumed as it was verified through the Levene's test for the combination of the previous mentioned variables.

To test whether AverageWTP is statistically influenced by the manipulation of Pref and ScoreSI, a factorial ANOVA with contrasts was computed to break down the effects and tell us where the differences between groups lie (Field, Miles, & Field, 2012). The generation (Gen) factor was included in the model to gain a better understanding of the model and the effect of the manipulated variables, as the preliminary literature suggests an influence of this factor on willingness to pay for sustainable products. The factor Gen has 3 levels: Boomer-GenX, Millennials, and Gen-Z, the generations Boomer and GenX were combined because the Boomer one had only 4 observations. Additionally, other demographic variables such us gender and nationality were tested.

```
Anova Table (Type III tests)

Response: log(AverageWTP)
                  Sum Sq Df F value    Pr(>F)
(Intercept)      20.1657  1 82.4121 1.422e-14 ***
Pref              0.2009  1  0.8211  0.367118
ScoreSI           0.6385  2  1.3046  0.276035
Gen               5.5353  2 11.3106 3.883e-05 ***
Nationality       7.2943 11  2.7100  0.004381 **
Pref:ScoreSI      2.1783  2  4.4512  0.014169 *
Pref:Gen          0.2885  2  0.5895  0.556620
ScoreSI:Gen       1.8205  4  1.8600  0.123764
Pref:ScoreSI:Gen  0.9802  4  1.0015  0.410748
Residuals        23.4906 96
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1
```

*Table 5 Anova WTP*

The results show (Figure 13) there is not a significant difference between levels of non-preferred ($\mu_{nonPref} = €61.99$) and preferred ($\mu_{Pref} = €56.13$). On the other side, when it comes to the variable ScoreSI, there is a difference between the non-display condition ($\mu_{NoDisplay} = €63.91$) and the display conditions ($\mu_{HighSI} = €57.24$; $\mu_{LowSI} = €56.77$), but the main effect is not significant. In the case of Gender, it was found that is not statistically significant for explaining the dependent variable AverageWTP, and for this reason it is excluded of the model. The results also show that there is an interaction were WTP differs across levels of Pref and ScoreSI. The highest mean is for the group[2] 6 ($\mu_{NonPref,NoDisplay} = €72.96$) and the lowest for the group 2 ($\mu_{Pref,LowSI} = €49.39$). Finally, the main effect of the variables Gen

---

[2] Composition of the groups from section 3.2. **Group 1:** Preferred features + High sustainability index; **Group 2:** Preferred features + Low sustainability index; **Group 3:** Preferred features + No display of sustainability index; **Group 4:** Non-Preferred features + Low sustainability index; **Group 5:** Non-Preferred features + High sustainability index; **Group 6:** Non-Preferred features + No display sustainability index.

and Nationality, and the interaction between Pref and ScoreSI were found to be statistically significant ($\alpha = 0.05$), indicating that the AverageWTP of the sneakers is significantly affected by the generation and nationality of the consumer and that the effect of preferred conditions on the estimation of WTP was different for the levels of ScoreSI.
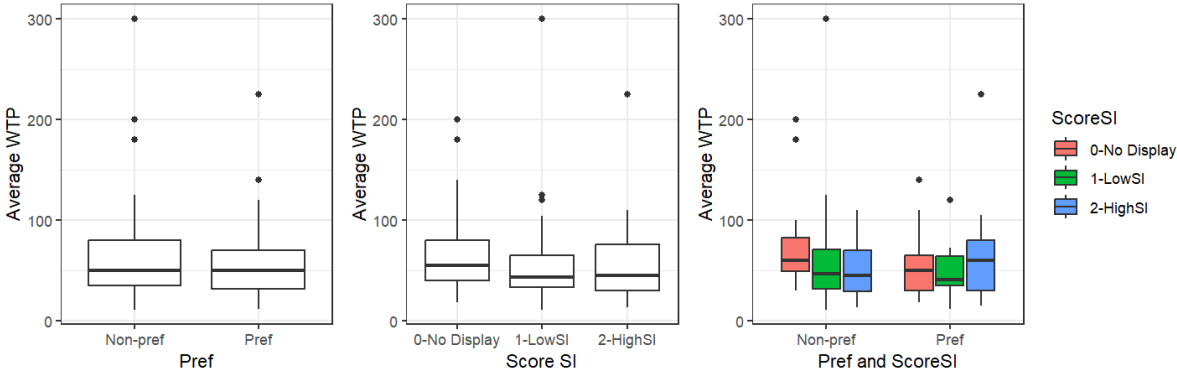


*Figure 13 Pref, ScoreSI and AverageWTP Boxplots*

```
Coefficients:
                 Estimate Std. Error t value Pr(>|t|)
(Intercept)      4.711e+00  5.190e-01   9.078 1.42e-14 ***
Gen1             1.356e-01  3.662e-02   3.702 0.000357 ***
Gen2            -2.036e-01  6.495e-02  -3.135 0.002278 **
Pref1:ScoreSI1   8.755e-02  3.321e-02   2.637 0.009770 **
ScoreSI1:Gen1    5.239e-02  2.355e-02   2.225 0.028449 *
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.4947 on 96 degrees of freedom
Multiple R-squared:  0.5004,   Adjusted R-squared:   0.3546
F-statistic: 3.434 on 28 and 96 DF,  p-value: 3.735e-06
```

*Table 6: Significant Parameter estimates WTPmodel*

To analyze deeply the behavior between the variables, the parameter estimates for the model were calculated (Table 6**Error! Reference source not found.**). To start, Gen1 contrast compares the Boomer-GenX group with the other two generations groups, and as the a Pr(>|t|) is less than 0.05 and the coefficient is positive we could conclude that both **younger generations statistically are willing to pay more for the sneakers than Boomer-GenX**. Additionally, Gen2 contrast weather the mean of GenZ is different than the mean of Millennials, and this was found significantly different with a p-value smaller than 0.05 and with a negative coefficient which means that **on average GenZ is willing to pay more than Millennials.**
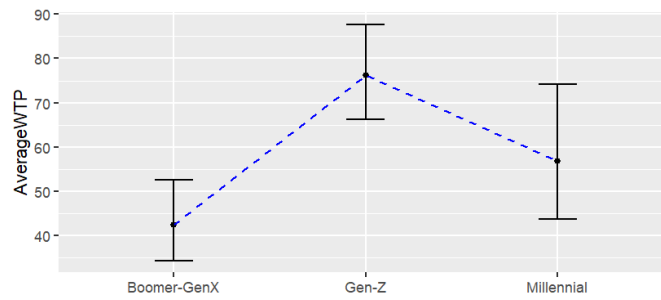
*Figure 14 AverageWTP for generations*

Another significant contrast with a Pr(>|t|) less than 0.05 is the relation between Pref1 and ScoreSI1, which test the effect in the two levels of preference with ScoreSI1, this score is the display group vs no display, where the display group is the combination of the two groups with SI. (Contrast1 Figure 15). As a result, the extent to which the inclusion of SI affects the WTP is statistically different for the preferred conditions and the non-preferred conditions. More specifically, **for non-preferred conditions, there is a negative effect on WTP when there is information about the SI** (could be good or bad score), but **for preferred conditions the WTP is higher when the consumers have information about the SI** than when they don't.
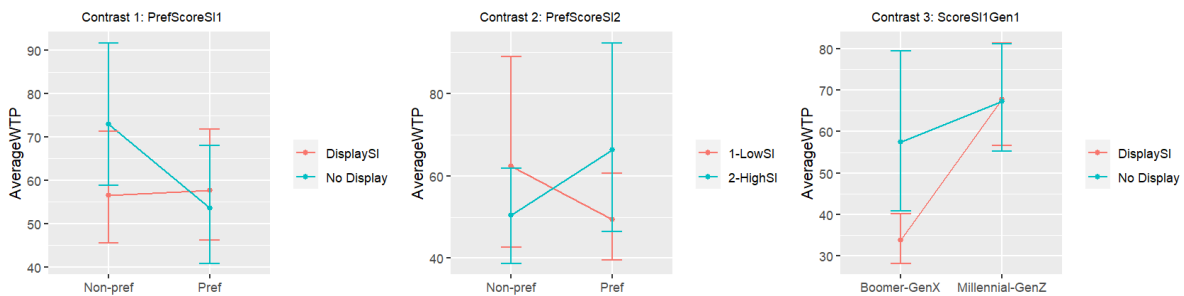


*Figure 15: Graphical display of contrasts for WTPmodel*

The last significant contrast in the WTPmodel2 with a Pr(>|t|) less than 0.05 is the relation between ScoreSI1and Gen1 (Contrast 3 Figure 15). This test whether the effect of Gen1 described above is different when information about SI is displayed or not. It could be concluded that the extent to which Boomer-GenX vs Millennial-GenZ has an effect on AverageWTP is different for display SI and no display SI. More specifically, **no including information about sustainability index has a positive effect in the AverageWTP for the generation Boomer-GenX but not for Millennial-GenZ**.

In order, to understand better the impact of the SI, the contrast PrefScoreSI2 was plotted (Figure 15). As it can be appreciated, a very interesting behavior is recognized even if the contrast is not significant. The fact that for the non-preferred conditions scenario the mean of WTP is

superior for low SI than for high SI, while **for the preferred conditions scenario, consumers are willing to pay more in the presence of high SI than low SI.**

In conclusion, the hypothesis 1 *(H1: the BoF Sustainability Index influences consumers' willingness to pay)* was statistically proved as the interaction of the preferred conditions with the different levels of SI is significant, which means that has in effect on WTP. In the same way, the hypothesis 4 **(H4a:** *the effect of the BoF Sustainability Index on willingness to pay will interact with the demographic backgrounds)* was statistically proved with the significance of the main effect of nationality and generation and the interaction of generation with ScoreSI.

### 4.2.2 Perceived quality

The variable perceived quality PQ is analyzed on detail in this section. To start, the histogram (Figure 16Figure 12) was useful to examinate the distribution of the variable. There is not presence of outliers. The total number of observations is 125. (N=125).
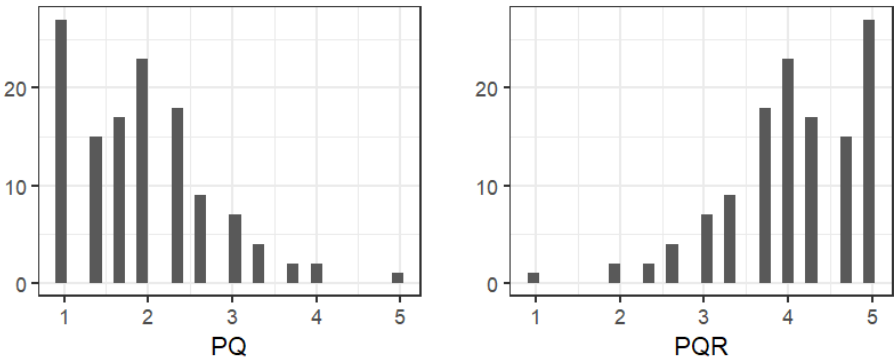


*Figure 16 Histograms Percieved Quality*

Since the variable PQ does not follow a normal distribution, some transformations were performed to satisfy the assumption, but it was not possible to obtain a satisfactory fit. However, it was decided to perform a reverse transformation to facilitate data analysis. Here, a higher value of PQR means a better perception of the variable and not as in the original form of PQ, where the behavior is the opposite. Additionally, the homogeneity of variance can be assumed as it was verified through the Levene's test for the relation of the dependent variable with Pref, ScoreSI and Gen, and its respective interactions.

To test whether PQR was statistically influenced by the manipulation of Pref and ScoreSI, a factorial ANOVA with contrasts was computed. The result was that none of the factors and interaction were significant; moreover, none of the contrasts were found to be significant. To better understand the effects of the manipulated variables, the same procedure as in the last

section is performed. First, the generation (Gen) variable is included in the model, then the gender variable, and finally the nationality variable. It is imperative to note that in this study it is also important to examine the extent to which demographic characteristics affect the variable of interest, and this is the main reason for their addition.

```
Anova Table (Type III tests)

Response: PQR
                   Sum Sq  Df   F value  Pr(>F)
(Intercept)       1869.49   1 3103.3004 < 2e-16 ***
Pref                 0.00   1    0.0018 0.96597
ScoreSI              0.64   2    0.5313 0.58939
Gen                  0.01   2    0.0103 0.98977
Pref:ScoreSI         1.55   2    1.2884 0.27995
Pref:Gen             0.67   2    0.5556 0.57538
ScoreSI:Gen          6.50   4    2.6967 0.03461 *
Pref:ScoreSI:Gen     4.24   4    1.7603 0.14225
Residuals           64.46 107
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1
```

*Table 7 Anova PQmodel*

The results show there is not a significant difference between levels of non-preferred ($\mu_{nonPref} = 4.06$) and preferred ($\mu_{Pref} = 4.08$). On the other side, when it comes to the variable ScoreSI, it seems like there is a slightly difference (Figure 17) between the non-display level ($\mu_0 = 4.17$) and the other two because they have a similar mean ($\mu_1 = 3.99$; $\mu_2 = 4.02$), but the main effect the interaction are not significant. In the case of Gender and Nationality, it was found that are not statistically significant for explaining the dependent variable AverageWTP, and for this reason they were excluded of the model. The results also show that there is an interaction were PQ differs across levels of Gen and ScoreSI. The highest mean is for the group[3] 3 (($\mu_{Pref,NoDisplay} = 4.22$) and the lowest for the group 1 ($\mu_{Pref,HighSI} = 3.90$). Finally, the interaction between ScoreSI and Gen were found to be statistically significant ($\alpha = 0.05$), indicating the effect of the different generations on the PQR was different for the levels of ScoreSI. To recognize better the effect of the interaction, the parameter estimates of the model are calculated (Table 8).

---

[3] Composition of the groups from section 3.2. **Group 1:** Preferred features + High sustainability index; **Group 2:** Preferred features + Low sustainability index; **Group 3:** Preferred features + No display of sustainability index; **Group 4:** Non-Preferred features + Low sustainability index; **Group 5:** Non-Preferred features + High sustainability index; **Group 6:** Non-Preferred features + No display sustainability index.
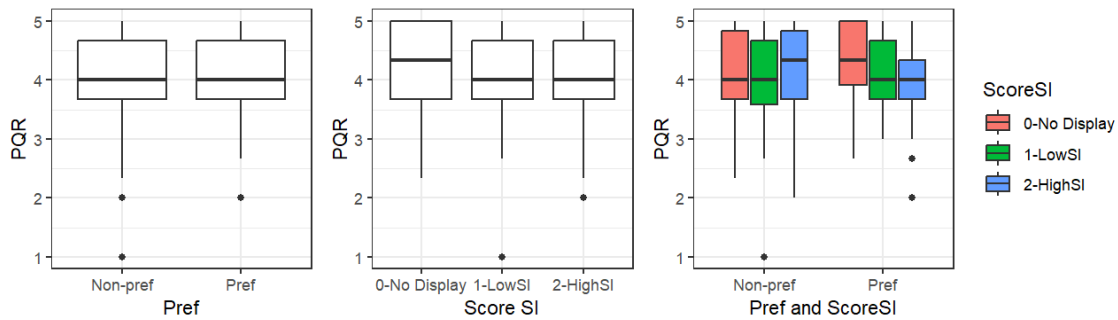
Figure 17: Boxplot PQR

```
Coefficients:
                    Estimate Std. Error t value Pr(>|t|)
(Intercept)        4.078e+00  7.320e-02  55.707  <2e-16 ***
Pref1              3.131e-03  7.320e-02   0.043  0.9660
ScoreSI1          -5.128e-02  5.018e-02  -1.022  0.3092
ScoreSI2          -1.204e-02  9.231e-02  -0.130  0.8965
Gen1              -2.205e-05  5.076e-02   0.000  0.9997
Gen2              -1.303e-02  9.136e-02  -0.143  0.8869
Pref1:ScoreSI1    -3.395e-03  5.018e-02  -0.068  0.9462
Pref1:ScoreSI2    -1.480e-01  9.231e-02  -1.603  0.1118
Pref1:Gen1        -4.936e-02  5.076e-02  -0.972  0.3330
Pref1:Gen2        -4.649e-02  9.136e-02  -0.509  0.6119
ScoreSI1:Gen1      1.140e-02  3.491e-02   0.326  0.7447
ScoreSI2:Gen1     -1.985e-01  6.382e-02  -3.110  0.0024 **
ScoreSI1:Gen2      4.854e-02  6.244e-02   0.778  0.4386
ScoreSI2:Gen2     -1.048e-01  1.155e-01  -0.907  0.3665
Pref1:ScoreSI1:Gen1 7.105e-02  3.491e-02   2.035  0.0443 *
Pref1:ScoreSI2:Gen1 4.306e-02  6.382e-02   0.675  0.5013
Pref1:ScoreSI1:Gen2 7.646e-02  6.244e-02   1.225  0.2234
Pref1:ScoreSI2:Gen2 -1.214e-01  1.155e-01  -1.051  0.2956
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.7762 on 107 degrees of freedom
Multiple R-squared:  0.1705,   Adjusted R-squared:  0.03873
F-statistic: 1.294 on 17 and 107 DF,  p-value: 0.2104
```

Table 8 Parameters estimates PQmodel

The significant contrast identified in PQModel2 with a $Pr(>|t|)$ less than 0.05 is the relationship between ScoreSI2 and Gen1 (Figure 18). This tests whether the effect of the older generations (Boomer-GenX ) versus the youngest generations (Millennian-GenZ) is different when the SI is high or low. One can conclude that the extent to which Boomer-GenX versus Millennial-GenZ has an effect on PQ and it is statistically different for high SI and low SI. More specifically, while **there is a positive effect on PQ for Boomer-GenX when there is high SI vs low SI, it is the opposite for Millennial-GenZ**: the PQ is higher when there is low SI vs high SI but the difference between this means is much smaller than the difference for Millennial-GenZ as it can bee seen in the graph below.
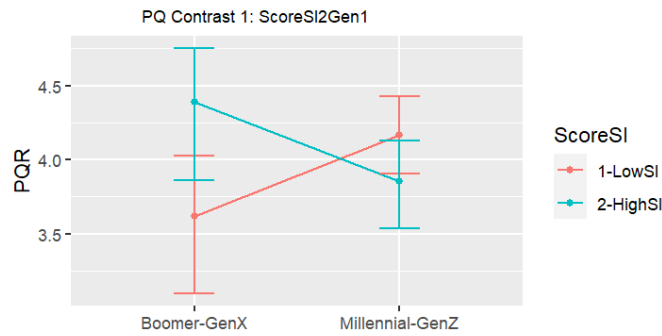
*Figure 18 Contrast PQ*

In conclusion, the hypothesis 2 *(H2: the BoF Sustainability Index influences consumers' perceived quality)* was statistically proved as the interaction of the consumers generation with the levels of SI is significant, which means that has in effect on PQ. In the same way, the hypothesis 4 **(H4b:** *the effect of the BoF Sustainability Index on perceived quality will interact with the demographic backgrounds)* was statistically proved with the significance of the interaction between generation and ScoreSI.

### 4.4.3 Purchase Intention

The variable purchase intention PI is analyzed on detail in this section. To start, the histogram (Figure 19Figure 12) was useful to examine the distribution of the variable. There is not presence of outliers, and the total number of observations is 125. (N=125).
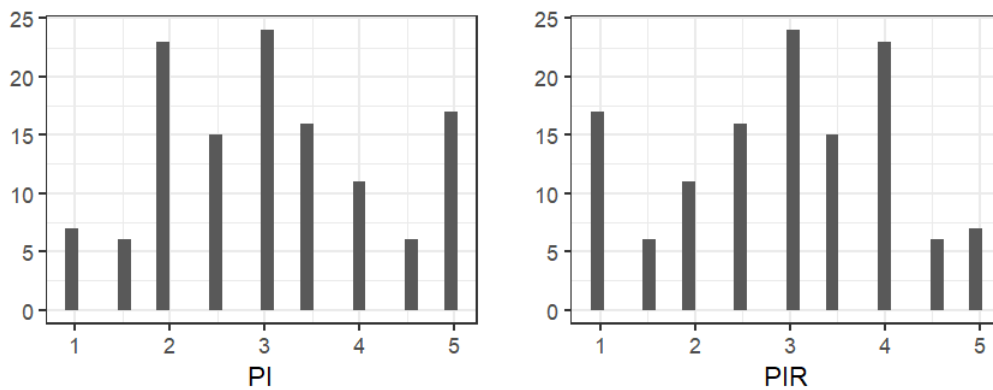


*Figure 19 Histograms PI*

Since the variable PI does not follow a normal distribution, some transformations were performed to satisfy the assumption, but it was not possible to obtain a satisfactory fit. However, it was decided to perform a reverse transformation to facilitate data analysis. Here, a higher value of PIR means a better perception of the variable and not as in the original form of PI, where the behavior is the opposite. Additionally, the homogeneity of variance can be assumed

as it was verified through the Levene's test for the relation of the dependent variable with Pref, ScoreSI, Gen, Gender and its respective interactions.

To test whether PIR was statistically influenced by the manipulation of Pref and ScoreSI, a factorial ANOVA with contrasts was computed. As a result of the analysis of variances, it was found that the variable Pref is highly significant $(\alpha = 0.05)$, which means that the PI of the sneakers is significantly affected by the preferences of the consumer. To better understand the effects of the manipulated variables, the same procedure as in the last sections is performed. First, the generation (Gen) variable is included in the model, then the gender variable, and finally the nationality variable.

```
Anova Table (Type III tests)

Response: PIR
                      Sum Sq  Df  F value    Pr(>F)
(Intercept)           841.90   1 754.2550 < 2.2e-16 ***
Pref                   15.59   1  13.9642 0.0002939 ***
ScoreSI                 2.95   2   1.3198 0.2712773
Gender1                 0.41   1   0.3631 0.5479733
Pref:ScoreSI            0.24   2   0.1092 0.8966477
Pref:Gender1            0.11   1   0.1007 0.7515694
ScoreSI:Gender1        15.96   2   7.1484 0.0011933 **
Pref:ScoreSI:Gender1    5.21   2   2.3322 0.1017376
Residuals             126.13 113
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1
```

*Table 9 Anova PImodel*

The results show there is a significant difference between levels of non-preferred $(\mu_{nonPref} = 2.61)$ and preferred $(\mu_{Pref} = 3.34)$. On the other side, when it comes to the variable ScoreSI, it seems like there is not a significant difference between levels (Figure 20) with a similar average value of PI around 3 $(\mu_0 = 3.02 ; \mu_1 = 2.95; \mu_2 = 2.81)$. In the case of Gen and Nationality, it was found that are not statistically significant for explaining the dependent variable PI, and for this reason they were excluded of the model. The results also show that there is an interaction were WTP differs across levels of Pref and ScoreSI. The highest mean is for the group[4] 2 $((\mu_{Pref,1} = 3.36)$ and the lowest for the group 5 $(\mu_{Non-Pref,2} = 2.41)$. Finally, the interaction between ScoreSI and Gender were found to be statistically significant $(\alpha = 0.05)$, indicating the effect of gender on the PI was different for the levels of ScoreSI. To recognize better the effect of the interaction, the parameter estimates of the model are calculated (Table 10).

---

[4] Composition of the groups from section 3.2. **Group 1:** Preferred features + High sustainability index; **Group 2:** Preferred features + Low sustainability index; **Group 3:** Preferred features + No display of sustainability index; **Group 4:** Non-Preferred features + Low sustainability index; **Group 5:** Non-Preferred features + High sustainability index; **Group 6:** Non-Preferred features + No display sustainability index.
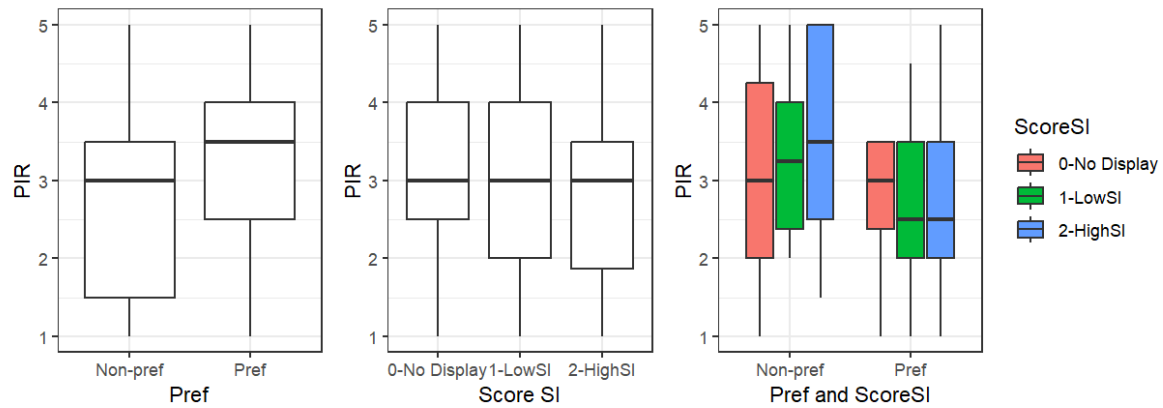
*Figure 20 Boxplots PIR*

```
aov(formula = PIR ~ Pref * ScoreSI * Gender1, data = dt)

Residuals:
     Min       1Q   Median       3Q      Max
-2.57692 -0.62500 -0.07692  0.77778  2.08824

Coefficients:
                         Estimate Std. Error t value Pr(>|t|)
(Intercept)               2.90565    0.10580  27.464  < 2e-16 ***
Pref1                     0.39536    0.10580   3.737 0.000294 ***
ScoreSI1                  0.04363    0.07413   0.589 0.557367
ScoreSI2                 -0.19169    0.13075  -1.466 0.145395
Gender11                 -0.06376    0.10580  -0.603 0.547973
Pref1:ScoreSI1           -0.03374    0.07413  -0.455 0.649844
Pref1:ScoreSI2           -0.01824    0.13075  -0.140 0.889275
Pref1:Gender11            0.03357    0.10580   0.317 0.751569
ScoreSI1:Gender11         0.18045    0.07413   2.434 0.016490 *
ScoreSI2:Gender11        -0.35345    0.13075  -2.703 0.007927 **
Pref1:ScoreSI1:Gender11  -0.14866    0.07413  -2.005 0.047304 *
Pref1:ScoreSI2:Gender11  -0.12412    0.13075  -0.949 0.344503
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 1.057 on 113 degrees of freedom
Multiple R-squared:  0.2317,    Adjusted R-squared:  0.1569
F-statistic: 3.098 on 11 and 113 DF,  p-value: 0.001128
```

*Table 10 Parameters estimates PImodel3*

The contrast ScoreSI1Gender11 was found significant, which test the effect of gender with display SI versus no display (Table 10). As a result, the extent to which the inclusion of SI affects PI is statistically different for female and male consumers. More specifically, **for men there is a positive effect on PI (Contrast 1 Figure 21) when there is information about the SI** (could be good or bad score), but for women is the opposite, the PI is lower when there is information about the SI.
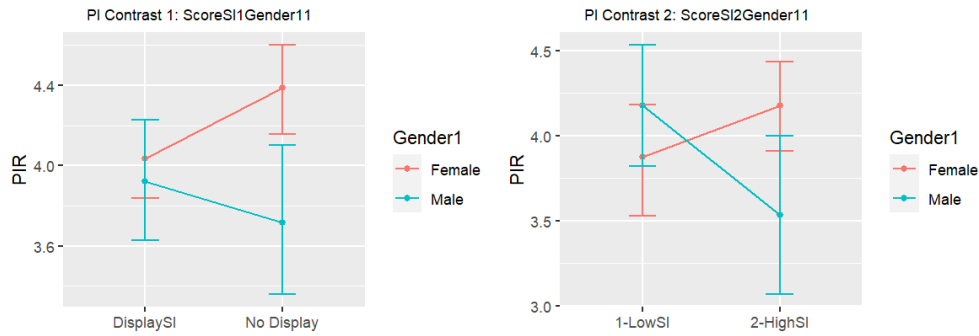
*Figure 21 Parameters estimates PImodel3*

Another significant contrast was ScoreSI2Gender1, which tests the effect of gender for the different levels of the sustainability index, highSI and lowSI. **Women were found to have a positive effect on PI when the sustainability index was high compared to low,** while this effect was negative for men as it can be seen in Figure 21 (Contrast 2).

In conclusion, the hypothesis 3 *(H3: the BoF Sustainability Index score influences consumers' purchase intention)* and hypothesis 4 **(H4c:** *the effect of the BoF Sustainability Index on purchase intention will interact with the demographic backgrounds)* were statistically proved as the interaction of the consumers gender with the levels of SI is significant, which means that has in effect on PI.

# Chapter 5: Discussion

## 5.1 Main findings and conclusions

### Sustainability index impact

According to the results obtained on this experiment, the BoF sustainability index influences consumers' willingness to pay, perceived quality, and purchase intention. Indeed, the SI caught respondents' attention and was remarkable even with a short memorization period. The sample was more likely to remember the low SI percentage than the higher one. In general, SI was very positively received and considered beneficial by respondents with an average rating of 4.3 out of 5.

It is also very interesting to note that the WTP for the preferred conditions scenario is higher when consumers have information about SI, and in the same scenario, the willingness to pay is bigger when SI is high than when SI is low. In the case of non-preferred conditions, respondents appear to be indifferent to the SI score.

In terms of perceived quality, Boomers and Gen X participants directly relate the SI score to the quality of the product; in this sense, a higher SI, means higher perceived quality. In addition, men's purchase intentions increased when information about the sustainability index was displayed; the opposite was true for women, who tended to penalize the low sustainability index score.

### Sociodemographic importance

The sociodemographic variables used in this experiment-gender, generation, and nationality-were key to understanding the effects of the manipulated variables on the dependent variables. In the case of willingness to pay and perceived quality, their inclusion was critical to explaining the variables because the sustainability index wouldn't have been significant and couldn't have measured the effects, leading to inaccurate conclusions.

### Listen to consumers

The variable preferred conditions had an important effect in two dependent variables, willingness to pay and purchase intention, which could mean the success of the preliminary interviews to find a consumers' valuable set of features when buying sneakers. The preferred conditions was the main effect explaining purchase intention, and its interaction with the sustainability index was also influential in the willingness to pay.

The preferred condition didn't have impact in consumers' perceived quality, and this could make sense since one of the main indicators of quality is the material and this was not included in this experiment in order to do not affect the consumers' perception of sustainability. Since there are some materials that are considerate more sustainable or responsible than others.

### Sustainability and new generations

The new generations are getting more interested in sustainability matters. An indicator of this is that, for the variable sustainability awareness (SA), in which contestants were asked about their knowledge in sustainability social and environmental issues, an uptrend was identified from the oldest to the youngest. In terms of generation the least knowledge were boomers, then gen-X, then millennials and finally gen Z, with the respective rating 1.67, 1.68, 2.02 and 2.22 out of 4. This same behavior was identified in the variable attitude towards sustainability index.

Even tough, through the results it was possible to identified that actually Boomers and GenX are getting influenced by the sustainability index in a positive way, as it was seen in the direct relation of the SI with of the perceived quality.

## 5.2 The game changer in the fashion industry

The fashion industry is one of the most polluting and resource-draining industries in the world (Pal, 2017) and the issues that are dealing with in terms of sustainability are extensive, from environmental, social to reputational matters. That's why in recent years the main companies in the world are paying more attention and investing resources in order to take action into sustainable matters, but one of the biggest challenges companies' faces is measuring the real impact of these efforts and making them comparable to others. Answering to this necessity some entities in the fashion industry such the The Business of Fashion Magazine, who are the creators of the BoF sustainability index, are developing reliable benchmark to track clearly defined, measurable progress towards achieving sustainability goals, the results are yearly published in the magazine.

The purpose of this experiment is the implementation of this index in the purchasing process of a fashion item, which would contribute to a better-informed purchase by the consumer, and it will allow companies to actually show their efforts in terms of sustainability in a standardized metric, because more and more this is a variable evaluated by consumers.

As a result, the presence of the sustainability index impact three important consumption variables, willingness to pay, purchase intention and perceived quality. These insights are relevant since there is not many studies about the implementation of sustainability index in a purchasing process, specifically in the fashion industry. Additionally, it would help companies to design strategies and rise the awareness of the impact that a low or high score of sustainability index.

## 5.3 Limitations and further research

The main limitation in this research is definitely the sample size and its distribution, since the number of observations is suitable for the study of certain behaviors, but not if it comes to be a significant sample of the population. Moreover, most of the respondents belong to the same group in terms of gender, age or nationality. Repeating the study with a larger and more balanced sample would be an interesting opportunity to see if the results are consistent.

This experiment was fully developed in online platforms and that's why for further research, it would be interesting to repeat this experiment in a real shop, incorporating the sustainability index into the product's price tag, as this experiment is closer to an online purchasing experience.

# Appendices

## 1. Qualitative interview structure

### 1. Introduction

• Welcoming

• Consent to the recording and use of data under anonymized and confidential conditions.

• Ensuring that there are no right or wrong answers, all opinions are relevant

• Please be honest and tell the truth

### 2. Warm-up

• Ask the participant to introduce themselves

• Name

• Age

• Occupation

• Nationality

• Marital status

### 3. Relevant features to buy clothes (T-shirt, Jeans and Sneakers)

• Thinking about your favorite **T-shirt**, please name three (or more) attributes you **like** about it - and explain why?

• Thinking about your favorite **T-shirt**, please name three (or more) attributes you **dislike** about it - and explain why?

• Thinking about your favorite **jeans**, please name three (or more) attributes you **like** about it - and explain why?

• Thinking about your favorite **jeans**, please name three (or more) attributes you **dislike** about it - and explain why?

• Thinking about your favorite **sneakers**, please name three (or more) attributes you **like** about it - and explain why?

• Thinking about your favorite **sneakers**, please name three (or more) attributes you **dislike** about it - and explain why?

**4. Purchasing Behavior**

• What would you find most important if you were to buy a new piece for your wardrobe now? What features or attributes would the item or the brand have to have?

• How often do you usually buy items for your wardrobe (t-shirts, jeans, sneakers)?

• What is the item of clothing you buy most often?

• Do you have a brand in mind if you were to buy a T-shirt? Why?

• Do you have a brand in mind if you were to buy Jeans? Why?

• Do you have a brand in mind if you were to buy Sneakers? Why?

• Influence from peers or social environment?

• Can you remember any clothes or sneakers advertisement? Print, Online, TV commercial, Banner? Please describe the ad. What do you remember about it?

**5. CSR**

• In your daily life, do you generally pay attention to the social and environmental commitment of companies when buying products? Please give concrete examples and give reasons.

• Where do you get your information that influences you here?

• What issues (ethnical, environmental) are you aware of that particularly affect the **fashion industry**? Where do you get your information from?

• Does the knowledge you have just mentioned change your behavior? What action results from it?

## 2. Experiment Survey Structure

**Intro**

Dear Participant,

Thank you for taking part in this survey. The survey is part of my master thesis at Católica Lisbon SBE. Please answer the questions as truthfully as possible. Your participation is anonymous and data will be used for research purposes only. If you have any questions regarding the study, feel free to contact me: s-amurillo@ucp.pt

Thank you for your support!

Ana Maria Aguirre

---

**Socio-Demographics**

Q1: What is your gender?

    A. Female
    B. Male
    C. Prefer not to say

Q2: What is your age?

    A. 18-23
    B. 24-29
    C. 30-39
    D. 40-55

Q3: What is your nationality? _____

Q4: What is your average net income per month?

    A. <500€
    B. 500€ - 1499€
    C. 1500€ - 2499€
    D. 2500€ - 3500€
    E. >3500€

Q5: Main area of study or work:

    A. Architecture or Design
    B. Business
    C. Arts and/or humanities
    D. Natural Science
    E. Social Science
    F. Law
    G. Economics
    H. Engineering
    I. Medicine
    J. Another: _____

## Experiment – Preferences

When you think about your sneakers, what are your preferences? Please choose one of the given options for each of the following questions.

Q6: What is your preferred sole?

    A. Plane
    B. With platform

Q7: What is your preferred color?

    A. Darker tones
    B. Lighter tones

Q8: From the following options choose your most preferred brand:

    A. Adidas
    B. Nike

## Experiment

On the following page you will be shown an advertisement for sneakers. Please look at it carefully and read all the given information. You can move to the next page only after 15 seconds.

☐ *Participants are randomly assigned to one of the 6 possible groups (condition sustainability + condition preference). For the preferred features, the previously individually queried ones are used for individual assignment. There are 24 different advertisement possibilities.*

**Example Group 1:** high BoFSI + preferred features (Plane, Darker tones, Adidas)



**STAN SMITH SHOES**

Product code: Q47225

For 50 years, the adidas Stan Smith Shoes have been a staple on the courts and on the streets. **Their minimalist style is the very definition of effortless cool.**

- The upper is made of **soft, flexible** material.
- High-abrasion-resistant outsole adds **durable responsiveness.**
- Absorbs impact for cushioning with every step.

**BoF Sustainability Index**
90%
*Business of Fashion Sustainability Index (Scale 0%-100%)*
Indicates how the company is performing towards more environmentally and socially responsible business model, across six impact categories: transparency, emissions, water and chemicals, materials, workers' rights and waste.

**Experiment – Dependent Variables**

**Willingness to pay**

Q7: Above which price would you definitely not buy the shown sneakers, because you can't afford it or because you didn't think it was worth the money? _____

Q8: Below which price would you say you would not buy the shown sneakers, because you would start to suspect the quality? _____

**Purchase Intentions**

Q9: Please indicate how much you agree with the following statements about the sneakers shown before.

|  | Strongly agree (1) | Somewhat agree (2) | Neither agree nor disagree (3) | Somewhat disagree (4) | Strongly disagree (5) |
|---|---|---|---|---|---|
| I would purchase this Sneakers. (Purchase Intention_1) | O | O | O | O | O |
| The probability that I would consider buying the Sneakers is low. (Purchase Intention_2) | O | O | O | O | O |

**Perceived Quality**

Q10: Please indicate how much you agree with the following statements about the sneakers shown before.

|  | Strongly agree (1) | Somewhat agree (2) | Neither agree nor disagree (3) | Somewhat disagree (4) | Strongly disagree (5) |
|---|---|---|---|---|---|
| The likely quality of the sneakers shown would be extremely high. (1) | O | O | O | O | O |
| The probability that the sneakers shown would | O | O | O | O | O |

be functional
is very high.
(2)

The sneakers
shown seem
to be            O            O            O            O            O
durable. (3)

## Experiment – Attention Test

Q11 Provided Information Please select all the information that was shown to you in the sneaker's advertisement before (multiple selection possible).

- ☐ Closure type
- ☐ Outsole
- ☐ Upper Materials
- ☐ BoF Sustainability index
- ☐ Available sizes
- ☐ Product code
- ☐ Size guide
- ☐ Payment facilities
- ☐ Years in the market
- ☐ Model reference
- ☐ Brand
- ☐ Reviews
- ☐ Price

## Recall Sustainability Index

This sustainability icon was shown to you in the sneakers advertisement before.



**Q12** What value was represented in the icon? Please select the correct percentage.

A. 10%
B. 15%
C. 20%
D. 25%
E. 30%
F. 35%
G. 40%
H. 45%
I. 50%
J. 55%
K. 60%
L. 65%
M. 70%
N. 75%
O. 80%
P. 85%
Q. 90%
R. 95%

**Attitude, Awareness and Consumer Behavior**

Q13 What is the average lifespan of your sneakers?
A. Less than a year
B. One year
C. Two years
D. Three years
E. Four years
F. More than four years

Q14 How often do you buy new shoes?

A. Never
B. Every month
C. three months
D. six months
E. one year
F. two years
G. More than two years

Q15 For me, buying sneakers from a highly responsible brand would be:

1                     2                     3                     4

Useless                                                        Beneficial


O              O              O              O

Unpleasant                                                                    Pleasant

O           O           O           O

Expensive                                                                     Cheap

O           O           O           O

Q16 Please indicate the extent to which you are knowledgeable about the following topics in the fashion industry.

| | Not known (1) | Little known (2) | Known (3) | Well known (4) |
|---|---|---|---|---|
| Do you know that the fashion industry is one of the most polluters on the planet.? (1) | O | O | O | O |
| Do you know of any initiatives that have addressed the lack of transparency and accountability across the supply chain? (2) | O | O | O | O |

Do you know of any index that measures the progress of brands towards achieving sustainability goals? (3)

    O         O         O

**Attitude towards the BoF Sustainability Index**

The Business of Fashion Sustainability Index was created with the aim of providing a standardized framework to measure the progress of fashion companies in achieving sustainability goals in six big categories: transparency, emissions, water and chemicals, materials, workers' rights and waste. The overall company score provides consumers with clearer information about how the company is doing in terms of sustainability and facilitates the process of making a better-informed purchase decision.

Q17 Please indicate the extent to which you agree with the following statements about the BoF Sustainability Index.

| | Strongly agree (1) | Somewhat agree (2) | Neither agree nor disagree (3) | Somewhat disagree (4) | Strongly disagree (5) |
|---|---|---|---|---|---|
| Considering price, I would prefer sneakers/clothes with a high BoF Sustainability Index. (1) | O | O | O | O | O |
| The BoF Sustainability Index is generally beneficial to the | O | O | O | O | O |

consumer. (2)

In general, buying sneakers(clothes with a high BoF Sustainability Index is a better choice. (3)

O          O          O          O          O

# References

Achabou, M. A. (2018). The effect of perceived CSR effort on consumer brand preference in the clothing and footwear sector. *European Business Review*. doi:10.1108/EBR-11-2018-0198

Ashraf, M., Naeem, M., & Shahzadi, M. (2017). Impact of Branding on Consumer Buying Behavior:. *International Journal of Academic Research in Business and Social Sciences*. doi:10.6007/IJARBSS/v7-i7/3124

Barone, M., Miyazaki, A., & Taylor, K. (2000). The influence of cause-related marketing on consumer choice: Does one good turn deserve another? *Journal of the Academy of Marketing Science*.

Breidert, C., Hahsler, M., & Reutterer, T. (2006). A REVIEW OF METHODS FOR MEASURING WILLINGNESS-TO-PAY . In *Innovative Marketing* (pp. 8-26).

Business of Fashion. (2021). *The Sustainability Gap.*

Chen, Z., & Song, W. (2022). Affecting Human Visual Behavior and Preference for Sneakers: An Eye-Tracking Study. *Front. Psychol*. doi:13:914321

Clean Clothes. (2020). *Poverty Wages*. Retrieved from Clean Clothes Campagin: https://cleanclothes.org/poverty-wages

Darnall, N. (2008). Creating a green brand for competitive distinction. *Asian Business and*.

Dekhili, S., & Achabou, M.A. (2014). Eco-labelling brand strategy independent certification versus. *European Business Review*, 305-329.

Diamantopoulos, A., Schlegelmich, B., Sinkovics, R., & Bohlen, G. (2003). Can socio-demographics still play a role in profiling green consumers? A review of the evidence and an empirical investigation. *Journal of Business Research*.

Dottle, R., & Gu, J. (2022, February). *The Global Glut of Clothing Is an Environmental Crisis*. Retrieved from Bloomberg: bloomberg.com/graphics/2022-fashion-industry-environmental-impact/?leadSource=uverify%20wall

Ellen MacArthur Foundation. (2017). *A new textiles economy: Redesigning fashion's future.* Retrieved from http://www.ellenmacarthurfoundation.org/publications

Environmental Protection Agency. (2019). *Nondurable Goods: Product-Specific Data*. Retrieved from United Stated Environmental Protection Agency: https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/nondurable-goods-product-specific-data#ClothingandFootwear

Euromonitor. (2016). *International Apparel & Footwear 2016 Edition (volume sales trends 2005–2015).*

Fashion Revolution. (2022). *Fashion Transparency Index 2022 Edition.* Retrieved from https://www.fashionrevolution.org/about/transparency/#:~:text=Transparency%20is%20crucial%20for%20connecting,impacts%20across%20their%20supply%20chains.

Field, A., Miles, J., & Field, Z. (2012). FACTORIAL ANOVA (GLM 3). In *DISCOVERING STATISTICS USING R.* SAGE Publications Ltd.

Kim, H., & Hall, M. (2015). Green Brand strategies in the fashion industry: leveraging connections. In T. Choi, & T. Cheng, *Sustainable Fashion Supply Chain Management, Springer* (pp. 31-45).

Lin, P.-C., & Yi-Hsuan, H. (2012). The influence factors on choice behavior regarding green products based. *Journal of Cleaner Production*. Retrieved from https://www.sciencedirect.com/science/article/pii/S0959652611003738

Pal, R. (2017). Sustainable Design and Business Models in Textile and Fashion Industry. In S. Muthu, *Sustainability in the Textile Industry* (p. 109). Singapore: Springer. Retrieved from https://doi.org/10.1007/978-981-10-2639-3_6

Pérez, L. A., Espinoza Pérez, A., & Vásquez, Ó. C. (2022). Exploring an alternative to the Chilean textile waste: A carbon footprint assessment of a textile recycling process. *Science of the Total Environment*, 2. Retrieved from https://www.sciencedirect.com/science/article/pii/S0048969722016357

Remy, N., Speelman, E., & Speelman, S. (2016, October). *Style that's sustainable: A new fast-fashion formula*. Retrieved from McKinsey & Company: https://www.mckinsey.com/capabilities/sustainability/our-insights/style-thats-sustainable-a-new-fast-fashion-formula

Sharma, A., & Foropon, C. (2019). Green product attributes and green purchase behavior: A theory of planned behavior perspective with implications for circular economy. *Management 2019*, 1018-1042. Retrieved from https://www.emerald.com/insight/content/doi/10.1108/MD-10-2018-1092/full/html

Stávková, J., Stejskal, L., & Toufarová, Z. (2008). Factors influencing consumer behaviou. *Agriculture Journal*. Retrieved from https://www.agriculturejournals.cz/publicFiles/01585.pdf

Tiang, Z., Wang, R., & Yang, W. (2011). Consumer Responses to Corporate Social Responsibility (CSR) in China. *Journal of Business Ethics*.

UNECE. (2018, March). *Fashion is an environmental and social emergency, but can also drive progress towards the Sustainable Development Goals*. Retrieved from Unece: https://unece.org/forestry/news/fashion-environmental-and-social-emergency-can-also-drive-progress-towards#:~:text=The%20fashion%20industry%20is%20responsible,flights%20and%20maritime%20shipping%20combined.

Yoo, B., & Donthu, N. (2001). Developing and validating a multidimensional consumer-based brand. *ournal of Business Research*.