What Are Portuguese Consumers' Preferences Towards Sustainable Fashion?

A Conjoint Analysis

Work project carried out under the supervision of:

Pedro Miguel da Cruz Correia Gardete

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Abstract

The concern for sustainable consumption had a considerable increase during the COVID-19 pandemic. But this is not a new trend. Over the past years, the world population is getting more worried about sustainability, and the fashion industry is a big contributor to environmental issues. Taking that into consideration, the goal of this work is to understand how Portuguese consumers perceive sustainable fashion brands in the national market and whether they are willing to pay a premium for sustainable fashion. A conjoint analysis was performed and used as a basis to discover that although Portuguese consumers give major importance to price, they would be still willing to pay a maximum price premium of 20 euros for a more sustainable fashion option.

Key Words

Marketing Research, Perceptual Map, Conjoint Analysis, Sustainability, Slow Fashion, Sustainable Brands, Portugal

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1. Introduction

1.1. Context of the research

"As pandemic restrictions lift in some areas of the world, consumer intention to buy sustainable fashion has increased" (R. Cernansky 2021). A BCG study with people from eight different countries had shown that "*in the wake of the pandemic people are more concerned — not less — about addressing environmental challenges and are more committed to changing their behavior to advance sustainability*." (Kachaner, Nielsen and Portafaix 2020) In this study, 72% of the respondents answered to be very/extremely concerned with air pollution and 71% to be very/extremely concerned with unsustainable water resource management. (Kachaner, Nielsen and Portafaix 2020). The fashion *"(...) industry is responsible for 10% of annual global carbon emissions, more than all international flights and maritime shipping combined."* (World Bank 2019) The fashion industry is one of the most polluting industries and therefore a big enemy of the environment. (World Bank 2019)

This study might be recent, but the sustainable era is not new, and around the world, environmental concern grows year after year. According to a study about environmental trends conducted between 2014 and 2021, the number of people worried about damage caused to the planet by humans increased from 71% to 79% (Glocalities 2021). In 2008, only 53% of the N100[1] companies worldwide reported on sustainability. This number climbed to 80% in 2020 (KPMG Impact 2020). As it is possible to see, consumers and companies are now more aware of sustainability and the impact it has on the future of the world. Furthermore, having a more sustainable behavior and thinking about sustainable development can provide solutions towards planning economic activities and growth in a way that the environment is preserved

[1] The N100 refers to a worldwide sample of 5,200 companies. It comprises the top 100 companies by revenue in each of the 52 countries and jurisdictions researched in the KPMG Survey of Sustainability Reporting 2020.

(or less damaged), paving the way for future generations to maintain and build societies and economies that do not neglect the environment (Sustainable Organizations, 2021).

Concerning Europe, *"Engagement in sustainability has deepened during the COVID-19 crisis, with European consumers wanting fashion players to act responsibly and consider the social and environmental impacts of their businesses."* (Granskog, et al. 2020). Consumers have also stated that their habits have changed during the pandemic. According to a study done by McKinsey (2020), 57% of the people reported that they made significant changes to their lifestyles to lessen environmental impact and more than 60% are going out of their way to recycle and/or buy more sustainable products. In the context of fashion, 65% of consumers are now willing to buy more durable items (Sawers, et al. 2020). Also, 37% of Europeans recycle their clothes and 69% would like to understand how their clothes are manufactured (Fashion For Change 2021).

In the Portuguese market, the fashion sector represented 5% of the country's GDP in 2020 (Executiva 2020). According to a study made by BNP Paribas, 52% of Portuguese consumers have bought sustainable products. In the same study, 9 out of 10 people said they value products, brands, and sustainable companies, but only 11% choose exclusively eco-friendly options when facing others that are not (Correia, Distribuição Hoje 2021). Besides, when looking for the sustainability inside of fashion, according to a survey conducted by *showroomprive.pt* a website and online store specializing in fashion – 64.73% of the Portuguese consumers affirmed they were willing to buy from ethical fashion brands irrespective of having to pay a higher price (Comunidades 2021).

Overall, it is possible to state that the world is pointing in a direction where brands – and companies – should strengthen their commitments regarding sustainability, as it is a matter that

is increasing its importance and concerns inside consumers' minds, that are also choosing, each day more, sustainable options – being it related to food, cosmetics, or fashion.

1.2. Problem Definition

The extent to which Portuguese consumers are interested in buying sustainable fashion brands when compared to the rest of Europe and the world and if they are willing to pay a premium for sustainable clothing over a conventional choice.

1.3. Research Question

To better understand how the sustainable fashion market works in Portugal, the question addressed was: 1) Would Portuguese consumers be willing to pay a premium for sustainable fashion?

1.4. Work Project Overview

Considering all the information presented above, in this Work Project, it will be possible to find a contextual background providing useful definitions of concepts used throughout the document such as slow fashion and sustainable fashion brands among others. This will be followed by an overview of the analysis that was conducted and the methodology used to answer the research questions mentioned previously. The result, concluding thoughts and future recommendations will round off this study.

2. Contextual Background/Literature Review

2.1. Conjoint Analysis

When developing market research, it is key to understand the attributes that consumers value the most in different kinds of products and services. For this, conjoint analysis is commonly used as a survey-based statistical study. “Conjoint analysis is used to understand the attributes that guide preferences by having consumers compare products across levels of evaluative criteria and the expected utility associated with the alternatives” (Babin and Harris 2012).

Conjoint analysis helps understand which “agreements” are more acceptable for consumers, therefore, “this technique is built on the assumption that consumers make complex decisions based not on one factor at a time but several factors “jointly” (Shao 1999). Considering the price of the clothes as one of the attributes in the purchase decision-making process will allow driving results about survey participants' willingness to pay a premium for sustainable fashion brands as part of the research question previously presented,

Three main phases need to be followed when conducting conjoint analysis (Popović, Kuzmanović1 and Savić 2018):

1. **Determining relevant attributes and the levels of each attribute.** Lists of attributes describing single alternatives are called profiles (real or hypothetical) being presented to respondents who are invited to express their preference by rating or ranking them.
2. **Design data collection of measuring individual preferences and estimating respondent’s utility functions**. For this, the linear additive model is the most used when determining the relationship between the attributes’ utility, this model assumes that the overall utility is the result of the sum of separate partworths of the attributes.

3. **Market simulation**. Used to predict how buyers will choose among competing products and how this choice can be impacted by the variances of the product's features.

- **Attributes and levels of choice**

According to Iwanow, McNeill, and Moore, clothing consumption decisions are less influenced by sustainability, particularly among fashionable consumers, than price, quality, style, and brand image. (Iwanow, McEachern e Jeffrey 2005) (McNeill e Moore 2015) (Xu, et al. 2021).

Nonetheless, considering the interviews conducted with experts from the sustainable fashion industry, attributes such as material origin, certification label, and production location were considered relevant when deciding to purchase a fashion item.

In this sense, the attributes chosen for the conjoint analysis were as follows:

- **Price:** The amount a customer is willing to pay for a product or service is the price. (Murphy 2021). The reason why the price is an important attribute relies on the fact that Portugal is a very price-sensitive country, combined with the fact that normally when compared to non-sustainable apparel brands, sustainable apparel brands' price is higher. This is mainly because manufacturers face a higher cost to produce the goods, as well as to purchase the raw materials (such as organic cotton, for example) (Ritch 2015) (Xu, et al. 2021). The different price levels attributed were defined based on the price of a shirt in a fast fashion brand versus the price of a shirt in a sustainable fashion brand (table 1). An intermediate price was added to have an average choice between these two extremes.

Table 1 - Price Attribute Conjoint - Comparison between brands' prices

Brand	Average Price
Primark	15€
Zara	25€
ISTO.	80€
Patagonia	90€

Source: Brands' websites

- **Quality:** In general, quality is "a characteristic or feature of someone or something" (Dictionary n.d.). According to Garvin, by identifying the different dimensions of a product, such as performance, features, durability, and aesthetics, among others, we can analyze the quality of a product. (Garvin 1988) (Niinimaki and Aako 2020).

  One widely discussed strategy that aims to reduce the environmental impacts of the fashion industry is the extension of the lifetimes of the pieces of garments, by producing better quality ones. (Niinimaki and Aako 2020) Moreover, in the interview with Mariana, when asked about the consumption behavior of Portuguese sustainable brands, she mentioned that she identifies an increasing trend from the Portuguese consumers to look not necessarily for sustainable products, but rather for products with better quality, thus, longer durability.

- **Style**: *"Fashion is most often used as a synonym for the current style in clothing"* (Fashion Dictionary n.d.). Many studies have proven that fashion, as well as style, are pertinent attributes for apparel consumption decisions (Shaw, et al. 2006) (Read 2017). Moreover, it is perceived that *"the style and fashion of ethical clothing are undesirable and often described as dull and unstylish"* (Read 2017) (Kirsi 2010) (Joergens 2006). Thus, this is a very important attribute to perceiving the consumption behavior of sustainable fashion brands.

The different style levels attributed were defined based on previous studies by Reading and North et al, that divided style into “trendy”, that aligns with the latest trends in the industry, is inspired by leading brands, models and is showcased at the top fashion shows around the world; “comfortable”, that is focused on the fitting and feeling good, in which soft fabric are chosen to create basic clothing that can be worn on most occasions and paired with almost any other garment; and lastly “classic” which can be defined by timeless pieces that are always in style regardless of the occasion or age.

- **Material Origin/Content:** As explained above, the materials used to produce a piece of clothing can be considered the most critical step to reducing the fashion industry’s negative environmental impact. (Clark, et al. 2009).

  In this sense, it is common to use attributes such as fiber and fabric content to evaluate sustainable fashion items. (Rothenberg e Matthews 2017) Sustainable materials such as organic cotton and recycled materials are becoming more popular among sustainable fashion brands, to reduce the environmental impact of textile production, as well as to minimize its waste in the early stages of production. (Bick, Halsey e Ekenga 2018) (Xu, et al. 2021)

  Without a doubt, the selection of the materials used to produce a piece of closing can be considered the most critical step to reducing the (negative) environmental impact that the fashion industry is known for. Indeed, the materials selected will have a considerable impact on the life cycle of the garment produced, it will influence its usage, maintenance, and eventual disposal (or not). (Clark, et al. 2009).

  The different material origin levels attributed were defined based on only two levels, whether the fabrics are sustainable or not.

- **Production Location:** Some studies have shown that the location of the manufacturing is one of the aspects that worries the most sustainable consumers, the main reason behind this is that consumers are most concerned about the environmental impact of the textile production at the same time that they value the "home" made aspect in textiles and garments, meaning that they are mostly worried about their environmental impact (Niinimaki and Aako 2020).

  Even though proximity location is meant to improve the supply chain transparency, sustainability, and efficiency during the whole product lifecycle, as well as benefiting from governmental support and cluster and business collaboration to propose long-lasting solutions in the industry, it is not yet demonstrated how proximity manufacturing may be related to improving product design development capabilities (Ekwall and Hjelmgren 2018).

  The different production location levels attributed were defined based on only two levels. As this research has at the base Portuguese consumers, the local production must be in Portugal. The production location chosen was Bangladesh as this country is one of the world's largest garment exporters, with the RMG (ready-made garment) sector accounting for more than 80 percent of Bangladesh's exports.

- **Certification Label:** This attribute was chosen based on the importance transparency has for sustainable brands, regardless of the industry. Indeed, social responsibility, which deals with subjects such as fair wages, labor rights, safety measures, etc. is relevant for consumers when deciding to make a purchase. (Henninger, Alevizou e Oates 2016) (Xu, et al. 2021).

The first level chosen was The FairTrade Label, which focuses on addressing social and ethical concerns such as safe working conditions and environmental protection, among others. (Fair Trade Certified n.d.) (Xu, et al. 2021).

The second label – PETA (People for the Ethical Treatment of Animals) - has to do with another increasing trend that was mentioned above, that was for the fashion industry to not only care for the people but also the animals. By having a PETA-certified label, brands assure the consumer that they did not conduct "(…) *any animal tests on ingredients, formulations, or finished products and that they pledge not to do so in the future*." (PETA n.d.)

3. Methodology

In this research, both qualitative and quantitative research methods were used. In the qualitative approach, preliminary in-depth interviews were conducted (see In-Depth Interviews Scripts and Transcriptions in Appendix 2 (table 13 and table 14) with professionals from the sustainable fashion market in Portugal, which allowed us to understand their views regarding the market and consumer preferences and behaviors are. The quantitative research was performed by carrying out three different surveys, where we were able to collect important data from the perspective of the participants (Portuguese or people who live in Portugal for at least five years) that are going to help with the development of personas, perceptual map, and conjoint analysis.

In this way, the methodology is going to be divided into four parts: (1) preliminary in-depth interviews conducted with the market professionals, as already mentioned; (2) analysis of the preliminary quantitative survey done to understand Portuguese consumers' preferences and behaviors, also helping to create personas and choose the attributes that are going to be used on the survey regarding brands perceptions; (3) analysis of the second survey which is going to be the background to develop the perceptual map; and (4) analysis of the third and last survey performed, that is needed to run the conjoint analysis and perform the willingness to pay a premium for sustainable fashion.

3.1. Qualitative Analysis – Preliminary Interviews

For this research, only two preliminary interviews with industry experts were conducted. The duration of the interviews was 30 and 90 minutes, respectively. For these, only one script was designed (Appendix 2) since both interviewees were considered industry experts and the information to be collected was the same.

There were eight interview questions (Appendix 2, Table 13, and table 14) complemented with follow-up questions, according to each interviewee. The purpose of these interviews was to get a feeling and deeper understanding of the sustainable fashion market in Portugal in terms of size, demographics, and consumers preferences, to, in the end, help determine Portuguese fashion consumers' behaviors and, consequently, discover the possible personas present on the market. Lastly, the interviews also helped in the development of the following surveys, mainly for the attributes' selection of the perceptual maps and conjoint analysis.

It is important to note that five more brands were contacted to conduct more interviews with industry experts however, without any reply. Thus, only these two interviews were sufficient for the purposes mentioned above.

3.2. Preliminary Survey

This first survey had as its main objective understanding the Portuguese consumer of sustainable fashion to then conduct a cluster analysis to build the different personas that sustainable fashion brands in Portugal should target. Before its publication, the survey was revised by the thesis advisor and tested by all the members of the group to make sure that it was easy to understand for all the participants (Appendix 3). After being sure that the survey was designed to collect all the needed data and that it was self-explanatory within the four sections, it was sent on different social networks such as WhatsApp, Instagram and LinkedIn accounts to gather as many answers as possible from the selected target group (Portuguese Citizens or people living in Portugal for at least five years) for one week.

Collecting as many answers as possible was linked to the confidence level that was expected in the results. A sample size between 100 and 384 observations represents enough data to conduct a significant analysis of the variables when considering a confidence level of 90% if not possible to assume that the attributes are normally distributed, and the population size starts at 20,000 (Singh and Micah 2014), which corresponds to the case of the population of this study: Portuguese people. If the sample size is above 384 observations, it will then have a significance level of 95% (Singh and Micah 2014).

In the first part of the survey Portuguese participants were able to identify some sustainable brands, both Portuguese-made and based brands and international brands. Also, this part was designed to understand if the participants had bought in sustainable fashion stores in the last 3 years and if they knew any other sustainable fashion brand besides the one shown. The objective of this part was to understand if Portuguese people were aware of the sustainable fashion industry in the country and if they are regular consumers of this type of brand.

The second part of the survey was made to understand which criteria were more important to participants when considering buying clothes or accessories. For this, six attributes were shown (quality, style, price, origin of the materials, labor condition, and transparency of the brand), and participants could select a number on a 1-10 scale for each one. For this, the attributes were selected based on the results of the preliminary interviews done with market experts previously explained.

Following, the third part of the survey included some questions that aimed to understand how sustainable the participants considered themselves and why, and if they are willing to pay a higher price for sustainable clothes, as well as why and which other factors (besides the ones mentioned in the previous section) would drive them to make this decision. These results are an important part step for answering the research question since it not only allows us to understand if Portuguese people can be considered sustainable in the fashion industry in general but also give an idea about how price-driven the decision-making process might be when considering buying clothes from sustainable fashion brands.

Finally, the last part of the survey was dedicated to demographic information, and it was collected the age group, gender, residence location in Portugal, highest academic level, professional status, and income level of the participants' household, with the main purpose of understanding the possible existents personas, which means: who are these consumers? And who sustainable fashion brands may tackle within the Portuguese market?

3.3. Conjoint Analysis Survey

This conjoint analysis survey was designed to understand the consumers' behavior towards sustainable clothing and to answer the RQ2: Would Portuguese consumers be willing to pay a premium price for sustainable fashion? Six attributes were considered and the levels to be

chosen from are mentioned in brackets: price (Up to €20, €21 – 40, €41 – 60, Above €60), quality (good, average, and poor), style (fashionable, comfortable and classic), material origin (sustainable fabrics and non-sustainable fabrics), certification labels (PETA, Fair Trade, none) and production location (Portugal and Bangladesh). The full survey is attached in Appendix 6.

Conjoint analysis can measure two aspects of consumer purchase decisions - the importance of each product attribute and the degree of preference for each of these attributes (Kapur, et al. 2008). Conjoint analysis is a realistic overall decision model as it forces consumers to assess products in a simulated actual purchase situation (Bajaj 1999). It has been frequently used in previous studies to evaluate how consumers value different attributes of a specific product or service and to identify the preferred combination of attributes (Jung E. and Pamela S. 2011).

In this survey, questions were designed to understand the preferences of Portuguese consumers while purchasing garments. To help the consumers visualize a product better and thereby provide better information, a shirt was chosen. Shirts are very common and found in most wardrobes, making it easier for consumers to recall the purchasing process. Secondly, this product allows the inclusion of the 'style' attribute and helps consumers relate to the multiple variations that come along with it.

Among the attributes related to the consumption of sustainable fashion, previous research has identified price and attributes related to sustainability (e.g., the material of the clothing, certification labels, production location, etc.) as the dealbreakers in consumers' decision-making (Dekhili and Mohamed Akli 2012); (Rothenberg e Matthews 2017). There is a common tendency to assume that sustainable clothing comes at a premium price. The levels mentioned include the typical cost of a shirt in a fast fashion brand, all the way up to the price range in a premium clothing store or website. Quality was differentiated into three levels based on color,

fabric, stitching, fit, and durability. These qualities are generally looked at when determining if a garment is built to last (Mitrokostas 2019). With shirts coming in different patterns and designs, the style was chosen as an attribute to evaluate its influence among the other parameters. Multiple research points toward consumers' willingness to buy apparel made from recycled fibers and fabrics (Dekhili and Mohamed Akli 2012); (Park and Lin 2020); (Wang, Sun and Song 2017). Therefore, the material origin is chosen as an attribute with sustainable fabrics comprising at one level and non-sustainable fabrics at the other. Similarly, (Rausch and Kopplin 2021) suggested that there has been a rise in material traceability issues in the apparel industry because of increased consumer concerns about environmental and social sustainability. Given the characteristics of apparel, it is essential to incorporate certification labels as an attribute considering consumers' perception of the label as a tool to communicate the environmental performance of a product (Thogersen 2002). Lastly, the production location variable was considered an attribute due to its positive effect on consumer buying decisions. The levels chosen include Portugal as respondents are locals, and Bangladesh due to lower costs of labor and consistently high levels of quality.

The conjoint data was collected via *Conjoint.ly*, an online choice-based conjoint platform that randomizes the product attributes levels and provides respondents with multiple scenarios to choose their preferred product from. These scenarios closely resemble a real-life situation wherein products might not be available due to a stockout or because, customers do not identify themselves with any of the presented options, so a "None of the above" option was available. The conjoint questions were followed by some demographic questions about respondents' gender, age, the region they hail from, educational background, professional situation, and household income.

The survey was disseminated through the researchers' social media accounts (*Facebook, WhatsApp, and Instagram*), social media groups that aimed to share academic surveys, and

groups related to the topic at hand, e.g., Sustainable Fashion and Ecological groups, targeting consumers who were Portuguese or lived in Portugal for over five years to fulfill the requirements of the research question. However, this sampling method might affect the quality of the representativity of the Portuguese population, since it is limited to the researchers' social media communities.

4. Results

4.1. Conjoint Analysis

As already mentioned in the methodology section, a conjoint study was conducted via the survey platform *Conjoint.ly* to answer research question 1: "Are Portuguese Consumers Willing to Pay a Premium for Sustainable Fashion?"

The study collected 272 responses between the 6th May 2022 and the 15th May 2022. Of the 272 respondents, the majority opened the survey link and left the page immediately (73.5% of the respondents), 3.7% of the respondents started the survey but did not complete it and 22.8% of the respondents completed the survey, which accounted for 61 responses (see figure 13 in Appendix 8). However, considering only the 61 completed surveys, only 57 will be taken into account for the sample, since 4 were low-quality responses because these respondents did not scroll through all the shown options.

- **Sample characteristics: Gender**

Regarding gender, 59.6% of the sample of 57 respondents is female and the remaining 40.4% are male, which represents 34 respondents and 23 respondents, respectively (see figure

14 in Appendix 8). According to the last Census done in Portugal, in 2021, the Portuguese population is characterized by 52.4% of females and 47.6% of males (PORDATA 2021a).

- **Sample characteristics: Age**

Concerning the variable age, most of the respondents are between 25 and 34 years old (47.4%) and the second-largest group of respondents is between 18 and 24 years old (42.1%) (see figure 15 in Appendix 8). The least represented age group comprises people from 35 to 44 years old, representing 1.8% of the total respondents, followed by the group with ages until 18 years old (3.5%), and then by the group of respondents from 45 to 54 years old (5.3%). The sample does not include representatives of the older age groups, over 55 years old, which can constitute a limitation to the accuracy of the conjoint analysis. The Portuguese population is considered an aged population, as the age group over 55 years represented 36.11% of the total population, in 2020 (PORDATA, População residente, média anual: total e por grupo etário 2021b). Furthermore, only 5.41% of the Portuguese population was between 18 and 24 years old, in 2020 (PORDATA, População residente, média anual: total e por grupo etário 2021b). Additionally, the average age of the Portuguese population was 46.2 years old in 2020 (Statista 2022).

- **Sample characteristics: Residence District**

Analyzing the sample results regarding the residence district, it is possible to identify Lisbon as being the district where most of the respondents live, accounting for 49.1% of the sample, followed by Viseu with 19.3% of the respondents (see figure 16 in Appendix 8). In the third place are Porto and Coimbra, with 5.3% of the total respondents living in each district. On the other hand, the least represented districts are Aveiro, Beja, Leiria, and Setúbal, which account for 1.8% of the total residents each. Finally, there are eight districts that are not

represented by the sample, namely: Azores, Braga, Bragança, Castelo Branco, Évora, Madeira, Portalegre and Viana do Castelo.

Now observing the actual Portuguese population data, in 2021, Lisbon was the most populous district with 22% of the total population, followed by Porto with 17.3% of the residents, and by Setúbal with 8.5 of the population. The districts Vila Real, Castelo Branco, Évora, Beja, Guarda, Bragança and Portalegre are the ones with less population, accounting for less than 2% each (INE 2022).

- **Sample Characteristics: Academic Level**

Considering the academic level of the sample, 45.6% of the respondents have a bachelor's degree and 35.1% have a master's award (see figure 17 in Appendix 8). Then, 14.0% of the respondents completed the high school level (12^{th} grade) and only 5.3% of the respondents did not complete it. There are no representatives of the population with a doctorate.

When analyzing the Portuguese population's academic level in 2021, only 24.1% of the Portuguese completed a higher education level, which contrasts with the sample results of 80.7% of the respondents (bachelor's degree and master's degree combined). Furthermore, 25.4% of the population completed the high school level, which is the minimum academic level required by law in Portugal, and the remaining 50.5% of the population did not finish the high school level or do not have any academic level (PORDATA 2022a). Furthermore, 25.4% of the population completed the high school level, which is the minimum academic level required by law in Portugal, and the remaining 50.5% of the population did not finish the high school level or do not have any academic level (PORDATA 2022a).

- **Sample Characteristics: Professional Situation**

Regarding the professional situation, most of the 57 respondents are employed (50.9%), 8.8% are self-employed and 3.5% are unemployed (see figure 18 in Appendix 8). The proportion of respondents that are currently studying represents 33.3% of the sample, whereas 3.5% find themselves in another professional situation. The sample does not represent retired people, which is due to the sample not including people over 55 years old, as already mentioned.

When it comes to the actual Portuguese population, in 2020, 39.5% of the population was employed, 6.84% was self-employed and 35.1% was retired (PORDATA, População empregada: total e por situação na profissão principal 2022b) (PORDATA 2022c).. The proportion of students in the same year, corresponding to 15.6% of the total population and the remaining 3% of the Portuguese were in another professional situation (PORDATA 2021c) (PORDATA 2021d).

- **Sample Characteristics: Monthly Household Net Income**

Referring to the monthly household net income, 64.9% of the respondents have between €751 and €2250 available per month, 17.5% have only €750 per month and 12.3% of the sample earn a net income between €2251 and €3750 (see figure 19 in Appendix 8). The minority of the respondents (5.3%) have available the highest monthly household net income levels (above €3751). In 2020, the average monthly net salary was €968, in Portugal, which can justify the higher predominance of the lower household net incomes in the sample (INE 2021).

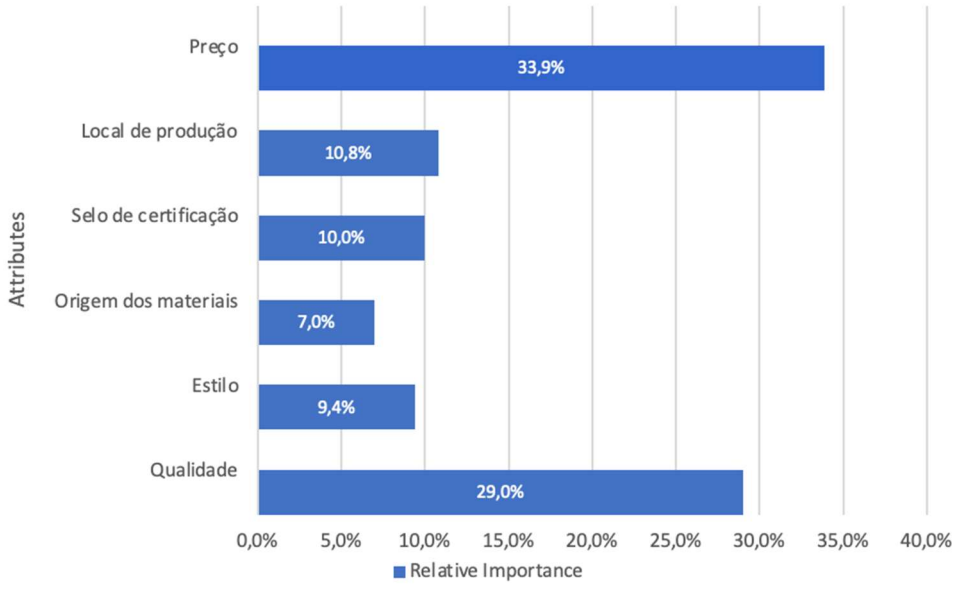
Preliminary Analysis

Attribute Importance

On analyzing the population sample, 33.9% and 29% of the respondents prioritized the price and quality of the shirt, respectively (see Figure 10). This was followed by the production location, certification labels, style, and origin of materials. The average percentage of importance for the four previously mentioned attributes is 9.3% with a range of 3.8%, indicating that these attributes were not considered to be as important as the price and quality, and were almost equally less important.

Regarding the levels in which clothing attribute is divided, the respondents have a preference for prices up to €40 compared with the highest prices, for higher quality, trendy pieces, for clothes made of sustainable materials, made in Portugal and that have some certification label (see figure 20 in Appendix 8).

Figure 1 - Importance of attributes (in%)



Ranked List of Concepts

The ranked list has shirts made up of 103 combinations out of 210 that have left a positive impact on the customers. Among those, the first 75 of them are shirts of medium or high quality, indicating that quality plays a major part in the purchasing process. Customers are also extremely sensitive to price, willing to sacrifice and purchase a shirt of medium quality if that would mean that their shirt is going to be cheaper. The willingness to pay more than €40 is seen only when the shirt is of high quality and sustainable. A similar trend is seen further down the ranking list as well, roughly indicating that consumers are willing to pay about €20 more for a sustainable shirt if it is of high quality. The same cannot be said about a shirt that is €60 or higher as the first mention of it is on the 98th rank. Style, Production Location, and Certification Labels seem to vary throughout, so there does not seem to be a particular level that customers are keen on. The first 20 results on the ranking list are shirts made locally in Portugal, suggesting that customers would prefer a locally produced garment. This tendency begins to shift as the price rises above €40, with more importance being given to price and quality.

- **Willingness to pay**

Preliminary calculations

In this section, the conjoint results will be analyzed and used as a basis to calculate the willingness to pay for sustainable fashion, which will ultimately answer research question 1: Would Portuguese consumers be willing to pay a premium price for sustainable fashion? For this willingness to pay calculation, the results on the average preferences for levels (level partworths), shown below in table 10, will have the main role.

Table 2 - Average preferences for levels (level partworths)

Attributes	Levels	Average preferences for levels (level part-worth)
Quality	High quality	13.2%
	Average quality	6.0%
	Low quality	-19.2%
Style	Trendy	3.2%
	Comfortable	-0.9%
	Classic	-2.3%
Materials origin	Sustainable	3.3%
	Not sustainable	-3.3%
Certification label	PETA	1.6%
	Fair Trade	2.6%
	None	-4.2%
Production local	Made in Portugal	5.2%
	Made in Bangladesh	-5.2%
Price	Up to €20	14.6%
	Between €21 and €40	10.7%
	Between €41 and €60	-1.6%
	Above €60	-23.7%

Firstly, as the attribute "price" had ranges of prices as levels (< €20; €21-40; €41-60; > €60) and not specific prices, it was necessary to calculate the midpoint of these ranges to use as specific prices. For the last range (> €60), the upper price considered was €80. With this, the price midpoints obtained were €10, €30, €50, and €70 (see figure 21 in Appendix 8). Then, as a next step, the gap between one price midpoint's part-worth (average preference) and the next one was calculated successively until the last price midpoint (€70), to achieve the correspondent utility. For example, from €10 to €30, the gap between their partworths was 3.9%, which is equal to the absolute value of 10.7% - 14.6%. The results for all the gaps between price levels' partworths are 3.9% from €10 to €30; 12.3% from €30 to €50 and 22.1% from €50 to €70, as can be seen in the following table.

Table 3 - Calculation of the gap between the price levels' partworths

Attribute	Levels	Price Midpoint	Price levels' partworth	Distance (gap) between price levels' partworth
Price	Up to €20	€10.0	14.6%	
	Between €21 and €40	€30.0	10.7%	3.9%
	Between €41 and €60	€50.0	-1.6%	12.3%
	Above €60	€70.0	-23.7%	22.1%

Since these gaps between price levels' partworths are different (3.9% ≠ 12.3% ≠ 22.1%) and the increase from one price midpoint to the next one is always €20, for analysis simplicity, a simple average gap was calculated as follows:

$$Average\ gap\ for\ €20\ increase\ in\ price = \frac{(3.9\% + 12.3\% + 22.1\%)}{3} = 12.77\%$$

The result can be interpreted as: for each €20 increase in the price of the product, there is an average negative effect of 12.77% on utility. In the same line of thinking, by doing a direct proportion, for each €1 increase in the price of the product there is a +n average negative effect of 0,64% on utility:

$$Average\ gap\ for\ €1\ increase\ in\ price = \frac{€1\ \times 12.77\%}{€20} = 0.64\%$$

Then, as a next step to calculate the willingness to pay for each level of each attribute (quality, style, materials origin, certification label, and production location), the gaps between the lowest level's partworth and each one of the upper level's partworth were computed, as seen in the 4th column of table 12 below. The lowest level's partworths of each attribute (in orange), are normally related to fast fashion products (except for the style that can have common levels to sustainable and fast fashion), which will be the standing point to estimate the willingness to pay for sustainable fashion products, in other words, to see if customers are

willing to pay a premium for sustainability over fast fashion products' prices. Afterward, to calculate the willingness to pay for each level of each attribute, a direct proportion was again done, using the already known average gap for a €1 increase in price (0.64%). To better understand the calculation behind it, as an example, let's consider the production location and its levels ("Made in Portugal" and "Made in Bangladesh"). It is easy to verify that, a shirt "Made in Portugal" has a higher partworth level (5,2%), when compared to a shirt "Made in Bangladesh" (-5,2%), which corresponds to a gap of 10,4%. Then, the direct proportion to reach the willingness to pay for the shirt made in Portugal was computed this way:

$$Willingness\ to\ pay\ for\ a\ shirt\ made\ in\ Portugal = \frac{€1\ \times 10.4\%}{0.64\%} = €16.29$$

This result can be interpreted in the following way: Portuguese consumers are willing to pay €16.29 more for a shirt that was made in Portugal than the price of a shirt that was made in Bangladesh. According to a study done by Diário de Notícias (2020), since Covid-19 appeared, Portuguese consumers have been giving priority to national products over international ones, even when consumers purchase online, which can justify the €16.29 premium for shirts made in Portugal, compared to the ones made in Bangladesh. Alternatively, Portuguese consumers can just perceive the €16.29 premium as the shipping costs, customs taxes, and the cost of not having immediate gratification by acquiring a shirt from Bangladesh.

Finally, this step was repeated for all the other attributes, leading to the results in the 5th column of table 12.

Table 4 - Summary of the calculations of the willingness to pay for each attribute

Attributes	Levels	Average preferences for levels (level partworths)	Distance (gap) between the lowest level's partworth for each attribute and the other levels' partworth within the same attribute	Willingness to pay
Quality	High quality	13.2%	32.4%	€50.76
	Average quality	6.0%	25.2%	€39.48
	Low quality	**-19.2%**	**0.0%**	**€0.00**
Style	Trendy	3.2%	5.5%	€8.62
	Comfortable	-0.9%	1.4%	€2.19
	Classic	**-2.3%**	**0.0%**	**€0.00**
Materials origin	Sustainable	3.3%	6.6%	€10.34
	Not sustainable	**-3.3%**	**0.0%**	**€0.00**
Certification label	PETA	1.6%	5.8%	€9.09
	Fair Trade	2.6%	6.8%	€10.65
	None	**-4.2%**	**0.0%**	**€0.00**
Production location	Made in Portugal	5.2%	10.4%	€16.29
	Made in Bangladesh	**-5.2%**	**0.0%**	**€0.00**

Besides the already analyzed attribute (production location), an analysis of the remaining attributes should be conducted. To start with quality, Portuguese consumers are willing to pay more than €50.67 for a high-quality shirt and more than €39,48 for an average level shirt for a low-quality one. As already seen in the conjoint survey results (see Figure 10 above) quality is the most important attribute after price, and consumers have a major preference for high-quality clothes (Appendix 8, Figure 20), which justifies why they are willing to pay a much higher premium for quality when compared with the remaining attributes.

As for the style, Portuguese consumers are willing to pay a premium of €8.62 for a trendy shirt, and a premium of €2.19 for a comfortable shirt, above the price of a classic shirt. These consumers do not see style as a priority when deciding to buy clothes (table 12).

Regarding materials origin, Portuguese consumers are disposed to pay an extra €10.34 for a shirt made with sustainable materials (organic cotton, linen, Tencel, or organic hemp), on top of a non-sustainable shirt (made with polyester, acrylic, nylon, rayon). Finally, concerning the certification label, Portuguese are willing to pay a premium of €10.65 for a shirt with Fair Trade certification and a premium of €9.09 for a shirt with PETA (People for the Ethical Treatment of Animals) certification, when compared with the price of a shirt without certifications. In reality, a study conducted by *Showroomprive. pt* found that 64.73% of the Portuguese are willing to purchase ethical and sustainable fashion, even if the prices are higher than fast fashion ones. This goes in hand with the fact that 95.18% of Portuguese consumers consider it important "to take care of the planet's health" (Comunidades Lusófonas 2021).

Results

After deconstructing each attribute's willingness to pay, and since each shirt is presented to the market as a combination of attributes, it is relevant to estimate what would be the premium that Portuguese consumers would be willing to pay for a shirt with all these characteristics combined (quality, style, materials origin, certification label, and production location). In this line of thinking, since the main goal of this section is to answer the RQ1: Would Portuguese consumers be willing to pay a premium price for sustainable fashion?, all the attributes' levels should be sustainability-oriented.

For this purpose, a hypothetical shirt, called shirt X, was created with the following characteristics: high quality, comfortable, made with sustainable materials, Fair Trade certified, and made in Portugal. This combination of attributes corresponds to the top 4 ranked shirts from the ranked list of product concepts as preferred by customers extracted from conjoint survey results. The 4th most preferred combination of attributes was chosen since the 3 first

ranked products had a feature that was not so associated with sustainable fashion, which was the trendy style. Normally sustainable fashion products tend to be more basic or comfortable to be always in style and avoid over purchases, as ISTO.'s, for example. Thus, the estimated willingness to pay for shirt X would be the sum of all the individual attributes' willingness to pay (high quality = €50.76; comfortable = €2.19; sustainable materials = €10.34; Fair Trade = €10.65; made in Portugal = €16.26):

$$\boldsymbol{Willingness\ To\ Pay\ for\ shirt\ X = \ €50.76 + €2.19 + €10.34 + \ €10.65 + \ €16.26}$$

$$\boldsymbol{Willingness\ to\ pay\ for\ shirt\ X = €90.23}$$

Ideally, Portuguese consumers would be willing to pay a premium of €90.23 for a sustainable fashion shirt (like the shirt X), above the price of a non-sustainable shirt. As seen before, the lowest partworth levels, in orange, in table 12 correspond to the characteristics of a non-sustainable choice (low quality, classic, made with not-sustainable materials, without certification label, and made in Bangladesh).

However, based on research made by Jung and Jin (2016), even the *highly involved in slow fashion persona* would only be disposed to pay 30% to 40% more to buy slow fashion items compared to fast fashion items. Therefore, considering that the price of a non-sustainable option would be around €26 like the one presented below in figure 1 from Zara, consumers would be willing to pay between €33.8 to €36.4 for the sustainable option, by adding a premium of 30%-40% to Zara's shirt price. Thus, in reality, Portuguese consumers might not be willing to pay €26 plus a premium of €90.23, totalizing €116.23 for a sustainable shirt.

Figure 2 - Price of a not-sustainable shirt from Zara

Source: Zara

The previous conclusion might indicate that the willingness to pay a premium for a shirt with multiple characteristics, should not be calculated solely based on the sum of each character's individual willingness to pay and that the interactions between these characteristics should be considered in the equation.

Simulations

To analyze how the characteristics of the shirts interact between them, some simulations using a Conjoint.ly tool were done. First, two hypothetical products A and B with price points of €20 or lower and €21 – 40 were considered respectively. The other attributes were the same (high quality, trendy style, sustainable materials, Fair Trade certification label, and made in Portugal). This resulted in preference shares of 58.6% for A and 41.2% for B (see figure 22 in Appendix 8).

On altering the quality of A to medium while retaining the quality of B at high (the other attributes remain the same), shares of B rise to 61.4% and reduce A's shares to 38.5%. The drastic change in shares indicates the importance of quality concerning the other attributes.

On a second simulation, the price of B was moved up to €41 – 60. Quality and all other attributes had not been changed. Shares of A increased to 54.9% and B's shares reduced to 44.9%. On pushing the price of the product A up to €21 – 40, the preference shares were almost equal. Quality was the attribute that affected purchasing power the most, closely followed by Price.

The attributes were reset again. Product A was sustainable while B was not. Product A cost the consumers between €21 – 40 while B was €20 or less. The preference shares for A stood at 57.1% and 42.9% for B, indicating that based on the surveyed sample, consumers were willing to pay at least €20 more for sustainable clothing if there was no difference or reduction in quality. This trend however changed when the price for A was moved up to €41 – 60. 60% of the people were happier buying non-sustainable clothing. This shows that people were unwilling to pay more than a premium of €20 for sustainable clothing over conventional clothing.

For some of the attributes, the levels did not seem to have much of an impact on the respondents as they did with price or quality. With the certification labels for example, on simulating two products with different certification labels (with all other attributes remaining the same), the preference shares stood at 49.3% for PETA and 50.6% for Fair Trade. The trend was very similar for style as well when the price and quality remained the same.

To conclude, although the conjoint survey had a small sample (57 respondents) which was not the most representative of the Portuguese population, it was possible to infer that the national consumers give more importance to price and quality than other attributes, which

might indicate that they normally look for average price-quality clothing and do not give much importance to sustainable attributes. On the contrary, by looking the at the willingness to pay a premium for each sustainable characteristic when compared with the least preferred characteristics, connected with fast fashion, it is possible to conclude that Portuguese consumers are disposed to pay more for sustainable options, meaning that they give importance to sustainable aspects of fashion.

Considering the combination of all the sustainable characteristics in a shirt, showed that Portuguese customers would be willing to pay more €90.23 for a sustainable shirt than for a fast-fashion shirt, which would not totalize a reasonable final price that customers would be willing to pay since they give higher importance to the price attribute. After running some simulations, it is possible to conclude that consumers were willing to pay a maximum premium of €20 for sustainable clothing if it was made with high quality, being sensitive to price changes above that level.

5. Conclusions

This research allowed us to find meaningful results about the Portuguese consumer behavior in the sustainable fashion industry by analyzing a significant sample taken from different surveys focused on personas, perceptual maps, and conjoint analysis individually.

First, Portuguese consumers can be considered as average sustainable consumers in the fashion industry, meaning that they have recently started to make changes (including the attributes they now value the most when buying different types of products) in their daily habits to become more sustainable consumers since they are concerned about the short- and long-term impact on the environment.

Portuguese consumers that consider themselves to be sustainable (in general, not only referring to fashion brands), are not always willing to pay a premium for sustainable fashion brands. The willingness to pay a premium for a sustainable fashion brand demonstrated to be negatively correlated to how sustainable the consumers consider themselves, the probability of choosing a sustainable fashion brand when buying new clothes, and the age of the consumer (older people are less willing to pay a premium for this kind of products). The willingness to pay a premium for a sustainable fashion brand demonstrated to be negatively correlated to how sustainable the consumers consider themselves, the probability of choosing a sustainable fashion brand when buying new clothes, and the age of the consumer (older people are less willing to pay a premium for this kind of products).

On the other hand, when targeting consumers, sustainable fashion brands with premium prices should focus on targeting those consumers that have bought in sustainable fashion brands in the last 3 years, since they demonstrated to be more willing to pay a premium for their products.

Regarding the sustainable fashion brands, the ones included in this research were less associated with the attributes of trendy and excitement, as seen in the analysis of the perceptual maps. Also, these brands were more associated with attributes related to the sustainable approach of business, such as sincerity, material origin, transparency, and work conditions. It was also possible to conclude that consumers do not associate price with quality (in fact, the correlation of these attributes is -0.31), however, they associate quality with sustainability since there is a high and positive correlation of quality with the attributes: sincerity, material origin, transparency, and work conditions.

As result, consumers might be willing to pay a premium for sustainable fashion brands if the brand is committed to having a more efficient supply chain and product lifecycle, and if they offer clothes with good quality that matches their taste (which does not necessarily match with the fashion trends). The efficiency of the supply chain and product lifecycle might be hard for consumers to understand if they cannot access the information needed to make fully informed decisions; therefore, sustainable fashion brands are recommended to be transparent with each step of their supply chain by sharing as much information as possible with their current and potential consumers. As mentioned, this information should be mostly linked with the origin of the materials and the work conditions.

Based on the conjoint analysis, it was possible to infer that the national consumers give more importance to price and quality than other attributes, which might indicate that they normally look for average price-quality clothing and do not give much importance to sustainable attributes. On the contrary, the willingness to pay a premium for each sustainable characteristic when compared with the least preferred characteristics, connected with fast fashion, indicates that Portuguese consumers are willing to pay more for sustainable options, so they are concerned with the sustainable side of fashion.

Considering the combination of all the sustainable characteristics in a shirt, showed that Portuguese customers would be willing to pay more €90.23 for a sustainable shirt than for a fast-fashion shirt, which would generate a final price tag that customers would not be disposed to pay since they give major importance to the price attribute, so they are more price sensitive. Finally, after running some simulations by changing one attribute level of the products at each time, it was possible to conclude that consumers were willing to pay a maximum premium of €20 for sustainable clothing if it was made with high quality, being sensitive to price changes above that level.

6. Study Limitations

The main limitation of this investigation corresponds to the sampling method. Since the different surveys were spread by the group members mostly on their social media accounts, the sample population is not fully representative of the Portuguese population, meaning that there are some groups excluded from the results previously presented, and some demographic data could not be analyzed or used to drive results. For instance, one of the main limitations was that for all the surveys the population was mostly composed of people between 18 and 34 years old, whilst the Portuguese population is mostly composed of older people as previously presented. For future investigation on this topic, it would be recommended to use a random sampling method to reach the most diverse population possible.

On the other hand, for the conjoint survey, there was a limitation in regards to the sample size. Even though it was recommended to have at least 150 responses in *Conjoint.ly*, the data presented correspond to a sample size of 57 people. The reason behind this is that even though the survey was opened by 272 people, most of them just opened the survey and did not provide any answers. For future investigations, it would be recommended to evaluate the possibility of

considering fewer attributes or levels per attribute so the survey takes less time to be completed or explore other tools that might be more interactive when presenting the different options to the respondents.

Even though it does not represent a limitation regarding the results presented, for the preliminary survey used to analyze the different personas in the sustainable fashion industry, the results presented correspond to a 90% confidence level, leaving a 10% of chance. As previously mentioned, this confidence level is given by the number of responses reached in the survey, meaning that future investigators could consider having bigger samples to increase the confidence level.

Finally, to calculate the willingness to pay for sustainable fashion, it would be important, besides considering bigger samples in the Conjoint Analysis, as already mentioned, to analyze the available literature review and theory on how the interactions between the clothing attributes will operate when combined, to provide a more reliable price premium estimate

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8. Appendices

Appendix 1 -

Figure 3 - Preliminary Survey Results: Average rate of attributes

Appendix 2 - Preliminary Interviews

Table 5 - Interview with ISTO. questions and answers

Question	Answer
What is your perception of the sustainable fashion market in Portugal? (Growth, size, trends, etc.)	The sustainable fashion market in Portugal has demonstrated to have a lot of emerging brands and some other turning their business models into sustainable business models to adapt to demand. Based on my experience, the sustainable market is growing and is expected to keep growing. Specifically for ISTO, from 2020 to 2021 we doubled our revenues.
Where are ISTO's customers from in geographic terms? Are they Portuguese people? Or is ISTO. more recognized by foreigners (in Lisbon/online)?	60% of the sales are to Portugal and the rest is international (Germany is a big market since German consumers are more aware and concerned about sustainability). There are currently 3 stores in Lisbon and 1 in Porto, and 45% of the sales are online. The brand is planning to keep growing and internationalize to markets like the USA
Regarding the Portuguese consumers, can you identify different personas among them, based on purchasing attitudes, expenses, lifestyle, etc.?	Conscious consumers that like quality clothing. They prefer quality to quantity and they are willing to pay extra for it. People that like to travel and like to have basic clothes and not necessarily trendy ISTO sells more to male customers because we are focused on that. It is also common that women to buy presents for their men friends/boyfriends/family…Our perception has been that men are more conscious of sustainability
What is the average age of ISTO.'s customers?	Portuguese: men and women - 22-40 years old. This is the same for other countries (max is 45)
Why did ISTO? decide to start with men's clothing instead of women's or both?	ISTO started with men mostly cause the owners are men and they wanted to create something that they could also wear. It was a good starting point to understand customers' needs. The brand then decided to also target women because of the requests/demands of the market. It is still hard to understand women's needs, that's why they are still more focused on men. Nowadays, a consumer is split as 70% men – 30% women
How does ISTO. Establish its prices?	The brand understands the production costs, and they share this with customers (transparency). After this, a fixed margin is set to cover fixed costs and invest in new developments Prices are also benchmarked to similar brands in the market to try to offer a lower price. Part of the strategy is to sell quality clothes to lower prices than the ones in the market. There is no other brand similar in regards to the basic pieces. The main competitor might be LAPAS
How do customers perceive ISTO.'s price level?	Consumers have positive feedback about the prices, they consider them to be fair, and they also appreciate the brand's transparency with the prices For example, the brand increased the price of the classic T-shirt cause the production cost doubled, and we post on IG explaining the situation, and the customers were understanding. Some products, especially the new ones, have higher prices than the rest which may be considered a high price by Portuguese standards, but customers keep buying them. Consumers are reluctant about the prices.
Does ISTO. do promotional events or any other price-related activities engage its customers?	The brand has not offered discounts since it started as a company to not encourage consumption and to create awareness about customers' purchases. The only discount is 10% off if subscribing to the newsletter to attract new customers. Customers are demanding to know more about the products they are buying, so ISTO has implemented transparency in green delivery (delivery with an electric brand) and traceability of their materials and costs.
How do you think to move forward? Do you think customers will be still willing to pay higher prices in the future	It is not possible to predict now. New pieces are more expensive cause the production cost is getting more expensive (the brand has no control over this). The production costs have increased mostly because of the fabric (organic cotton) since the emerging brands have recently increased their demand and the offer of sustainable materials is not enough.
Why do they think that women's demands are harder to predict/understand?	The perception is that women are more willing to spend money on pieces that are unique/different to stand out.
What would be your insight about consumers' behavior towards the brand?	Few loyal customers: They buy almost monthly, and they normally buy the new products of the brand, but the majority of the customers buy based on their needs

Table 6 - Interview with Azur, questions, and answers

Question	Answer
What is your perception of the sustainable fashion market in Portugal? (Growth, size, trends, etc.)	"There is an increasing number of sustainable fashion brands, but I do not know how to precise the exact market size. I believe there is an increasing trend for the choice of sustainable options, as consumers are more and more conscious about the quality of a sustainable product"
Regarding the Portuguese consumers, can you identify different personas among them, based on purchasing attitudes, expenses, lifestyle, etc.?	"I can identify an increasing number of consumers concerned more about the quality of the piece they want to purchase. Maybe the purpose of this behavior is to slow down the over-consumption and replacement of certain pieces."
Do you think customers will be still willing to pay higher prices in the future?	"It is something they cannot predict now. New pieces are more expensive cause the production cost is getting more expensive (they cannot control it). The production costs increase mostly because of the fabric. They only work with organic cotton and because of the emerging brand the demand has been increasing and the offer in the market is not enough."
Do you think women are less prone to buy sustainable fashion brands due to a lack of trendy sustainable options?	I"t is hard to say. I think maybe women are always following the latest fashion trends and that sometimes it means buying the cheapest brand, and not necessarily the most sustainable. But of course, it depends on the person in a cause."
Where are ISTO's customers from in geographic terms? Are they Portuguese people? Or is ISTO. more recognized by foreigners (in Lisbon/online)?	"I feel that in terms of demand, it is more or less equivalent between Portuguese and foreigners. Now, when it comes to making the purchase, there are more Portuguese. I think that eventually the fact that it is further away and the brand is small means that foreigners often see the products, ask me for information but end up not finalizing the purchase."
What is the average age of ISTO.'s customers?	"Portuguese: men and women - 22-40 years old. This is the same for other countries (maximum is 45)"
What are the key attributes when considering a sustainable fashion brand?	"The ages vary a lot and I think that's also because the brand is new and doesn't have its niche 100% consolidated yet. I have both younger people, like the late 20s/early 30s, and older people, between 40 and 50 years old."
What would be your insight about consumers' behavior towards the brand?	"They exist. I would say they are around 25% of the consumers"
How does Azur establish its prices?	"To set the prices we take into account several costs, such as the cost of raw materials (e.g. fabrics), the cost of trims (e.g. buttons, threads, applications, zippers, etc.), the cost of labor, cost of packaging, website, photo productions, marketing, etc. We also take into account market prices for similar products."

Appendix 3 - Preliminary Survey Questionnaire

We are a group of Master's in Management students of the NOVA School of Business and Economics (Nova SBE) and, to obtain information for our course completion thesis, we are conducting research relative to consumer behavior towards sustainable fashion brands. Your answers are important to us, whether you are a consumer or not.

Our goal is to have an understanding of the needs, wills, and expectations of current or potential Portuguese consumers concerning sustainable fashion brands.

This questionnaire will not take more than 7 minutes and we would like to thank you for your participation.

Note: The data collected will be used only by our team for this study.

*Mandatory

1. Are you Portuguese or do you live in Portugal for at least 5 years? * Yes/No
   - If no, the survey ends here

First Section

2. Please check which of the sustainable brands shown in the image you know *

3. Have you purchased or as a gift some item from a sustainable fashion brand in the past 3 years?* Yes/No

A sustainable fashion brand assumes that supply and production are done locally, that there is transparency throughout the logistics chain, traceability of work processes,

and (ideally) of raw materials. The garments are made from ecological raw materials and safe working conditions and fair wages are guaranteed.

4. Do you know any other sustainable brand? If so, please tell us below.

5. Have you ever purchased an item from at least one of the following brands? If so, please mark from which brand it was. *

Second Section

6. How important are the below attributes for you while you are buying clothes? From 0 to 10, being 0 is not important at all, and 10 is super important.
    - Quality*
    - Style*
    - Price*
    - Source of the material/fabrics*
    - Labor condition*
    - Transparency*

Third Section

7. *On a 0 (no sustainable) to 10 (very sustainable) scale, please let us know how sustainable do you consider yourself? **
8. *Please indicate the reason behind your previous answer **
9. *From 0 (not likely) to 10 (very likely), how likely are you to choose a sustainable fashion brand instead of a fast fashion brand? **
10. *Please indicate the reason behind your previous answer **
11. *Are you willing to pay a premium for a sustainable fashion brand? * Yes/No/Maybe*
12. *Please indicate the reason behind your precious answer **
13. *What would influence you to buy a sustainable fashion brand clothing piece?*

Fourth Section

14. *How old are you?* *
    a) Under 18 years old
    b) 18-24 years old
    c) 25-34 years old
    d) 35-44 years old
    e) 45-54 years old
    f) 55-64 years old
    g) 65+ years old
15. *With which gender do you identify yourself?* *
    a) Female
    b) Male
    c) Non-binary
    d) Other
16. *What is the highest educational degree you received?* *
    a) Less than a high school degree
    b) High school degree
    c) Bachelor's degree
    d) Master's degree
    e) Doctorate Degree
17. *What is your employment status?* *
    a) Student
    b) Employed
    c) Self-employed
    d) Unemployed
    e) Retired
    f) Other
18. *What is your household liquid income?* *
    a) Up to 750
    b) Between 751 and 2250
    c) Between 2251 and 3750
    d) More than 3751
19. *Which district are you from?*
    e) Açores
    f) Aveiro
    g) Beja
    h) Braga
    i) Bragança
    j) Castelo Branco
    k) Coimbra
    l) Évora
    m) Faro
    n) Guarda

o) Leiria
p) Lisboa
q) Madeira
r) Portalegre
s) Porto
t) Santarém
u) Setúbal
v) Viana do Castelo
w) Vila Real
x) Viseu

Appendix 4 – Conjoint Survey

Introduction

This study is designed to understand Portuguese consumers' preferences while buying apparel items and it will take no longer than 10 minutes of your time. If you are Portuguese or live in Portugal for at least 5 years, please proceed to complete the survey and provide us with your valuable input.

Observation: The data collected will only be used by our team for this study.

Thank you for your participation!

Q1: Imagine that you are buying a shirt and that you have the options that will be shown throughout this survey. From the assorted options, you should select the shirt that pleases you the most based on the group of characteristics of each one of them. The shirts differ in terms of price, quality, style, material origin, certification labels, and production location.

Please note that the combinations shown are all hypothetical, not reflect reality.

Block of conjoint questions

Which white shirt would you choose from the options below?

Price	**Up to €20**
	€21 – 40
	€41 – 60
	Above €60
Quality	**Good quality** The colors and fabrics of the item match the description and the item is sewn well. It fits the customer comfortably and allows him/her to feel more confident about themselves.
	Average quality The colors and fabrics of the item match the description, and the fitting is average. There could be an odd loose thread at the ends or a small stain that can be washed away. These aspects do not damage the clothing or deem it unwearable, so they do not affect the customer psychologically.
	Poor quality The colors and fabrics of the item vary greatly from the description. The item does not fit properly to the customer's body, and it is less durable compared to a good quality one, but still wearable.

Style	**Fashionable** The item aligns with the latest trends in the industry. It is inspired by leading brands, and models and showcased at the top fashion shows around the world.
	Comfortable The item is focused on fitting and comfort. It is made of soft fabric woven to create basic clothing that can be worn on most occasions and paired with almost any other garment.
	Classic The item is a timeless piece, which is always in style irrespective of day and age. It is most often stitched to fit perfectly and meet costumer's needs.
Materials origin	**Sustainable fabrics** (e.g.: organic cotton, linen, Tencel, organic hemp)
	Non-sustainable fabrics (e.g.: polyester, acrylic nylon, rayon)
Certification Labels	**PETA -** People for the Ethical Treatment of Animals
	Fair Trade – Focus on values of social sustainability, namely the assurance of fair salaries and safe and respectable working conditions, and environment protection.
	None
Production location	**Made in Portugal**
	Made in Bangladesh

Demographic section

1. How old are you?

a. Under 18 years old
b. 18-24 years old
c. 25-34 years old
d. 35-44 years old
e. 45-54 years old
f. 55-64 years old
g. 65+ years old

2. With which gender do you identify yourself?

a. Female
b. Male
c. Other

3. What is the highest educational degree you received?

a. Less than a high school degree
b. High school degree
c. Bachelor's degree
d. Master's degree
e. PhD

4. What is your employment status?

a. Student
b. Employed
c. Self-employed
d. Unemployed
e. Retired
f. Other

5. What is your household income? Consider it liquid

a. Up to 750€
b. Between 751€ and 2250€
c. Between 2251€ and 3750€
d. More than 3751€

6. Which district are you from?

a. Açores
b. Aveiro
c. Beja
d. Braga
e. Bragança
f. Castelo Branco
g. Coimbra
h. Évora
i. Faro
j. Guarda
k. Leiria
l. Lisboa
m. Madeira
n. Portalegre
o. Porto
p. Santarém
q. Setúbal
r. Viana do Castelo
s. Vila Real
t. Viseu

Appendix 8 - Conjoint Survey Results

Figure 4 - Respondent counts by status

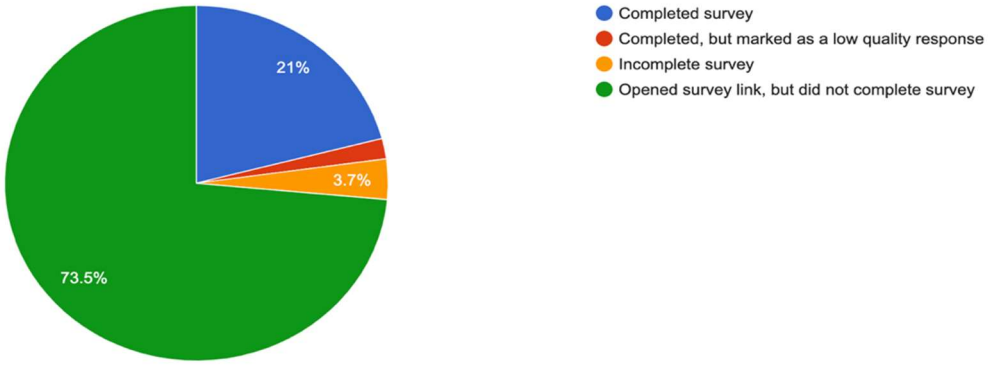

Figure 5 - Distribution of the respondents per gender

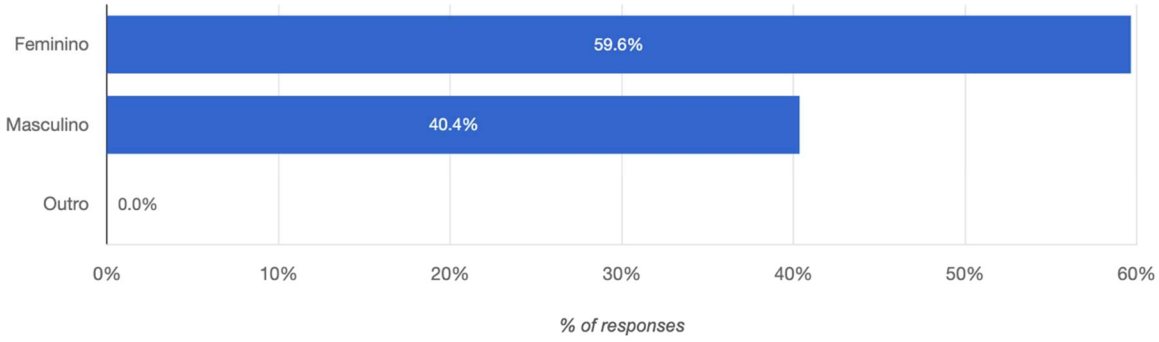

Figure 6 - Distribution of the respondents per age groups

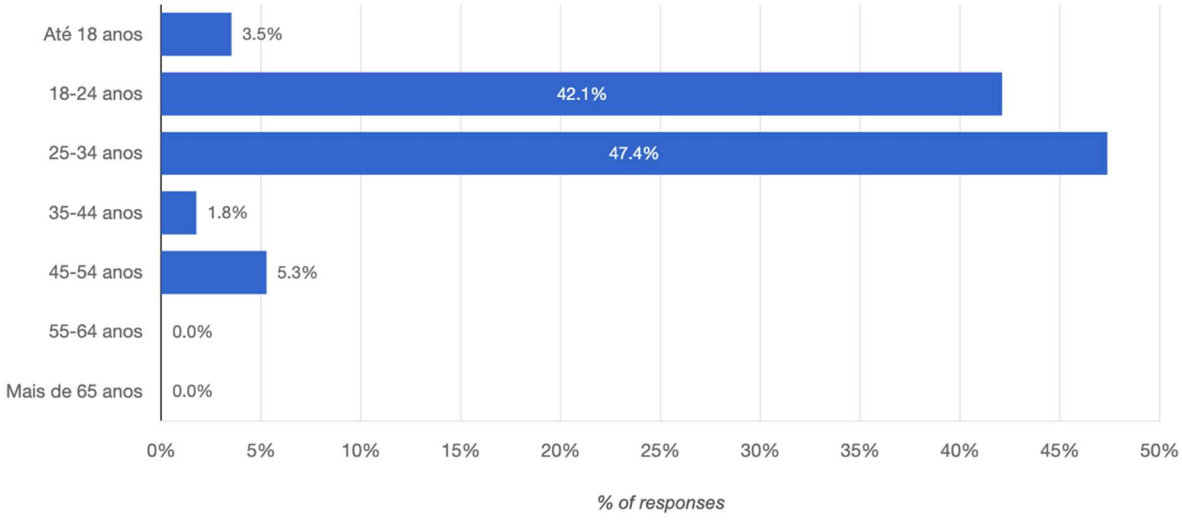

Figure 7 - Distribution of the respondents by residence district

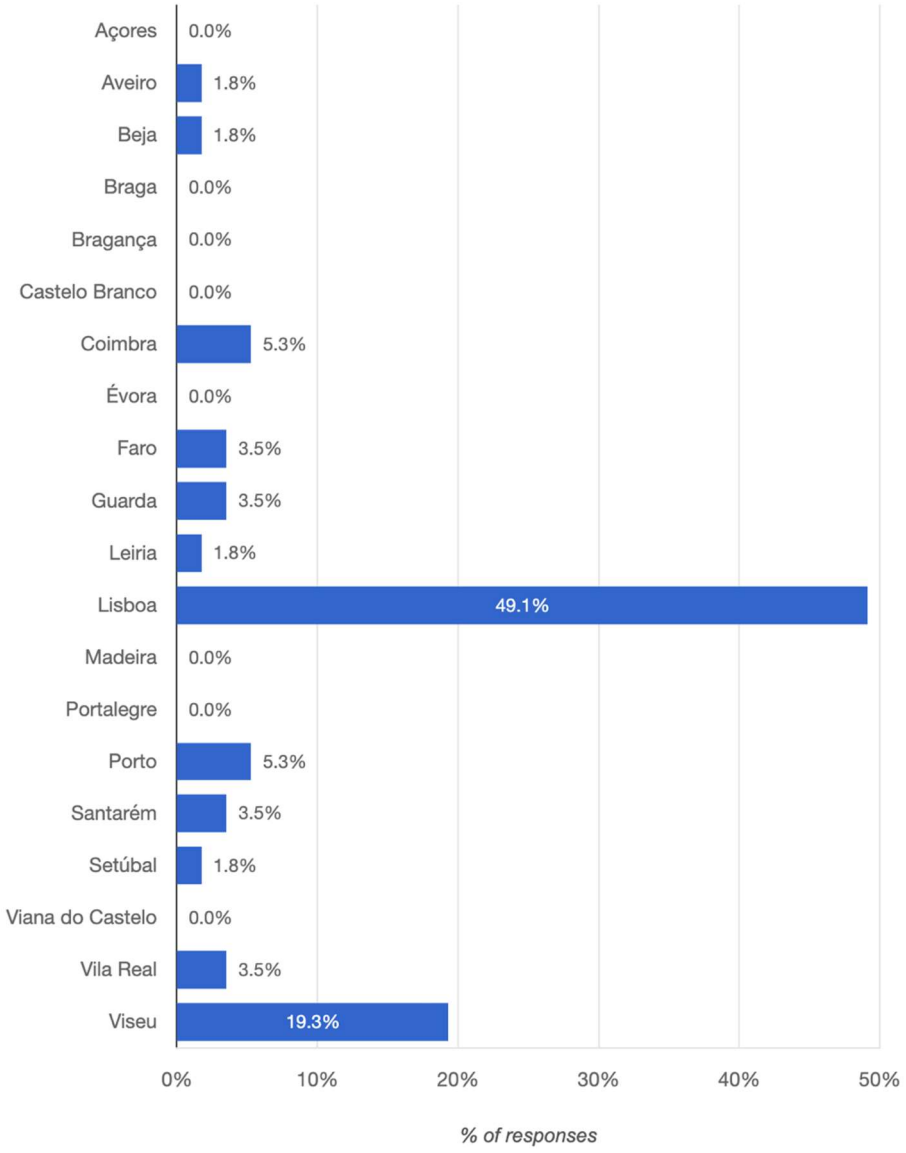

Figure 8 - Distribution of the respondents per academic level

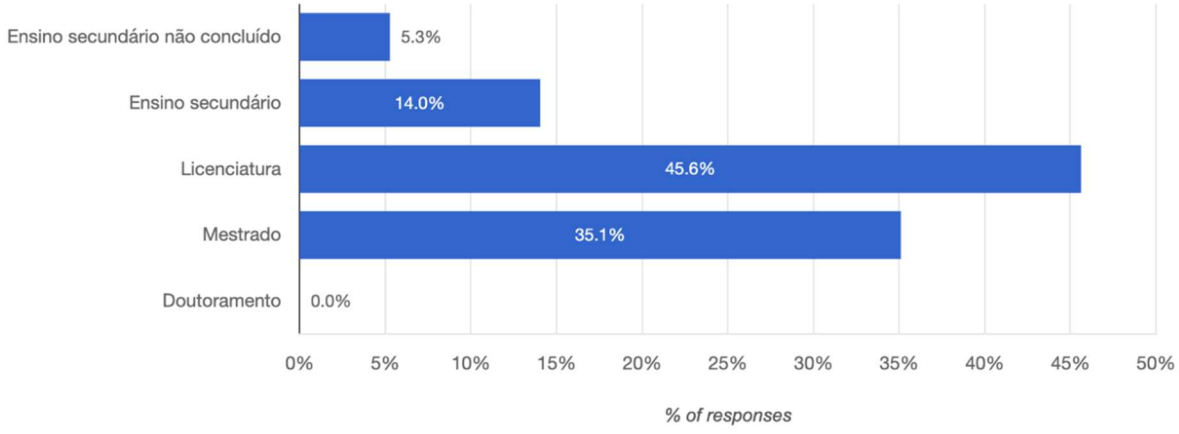

Figure 9 - Distribution of the respondents per professional situation level

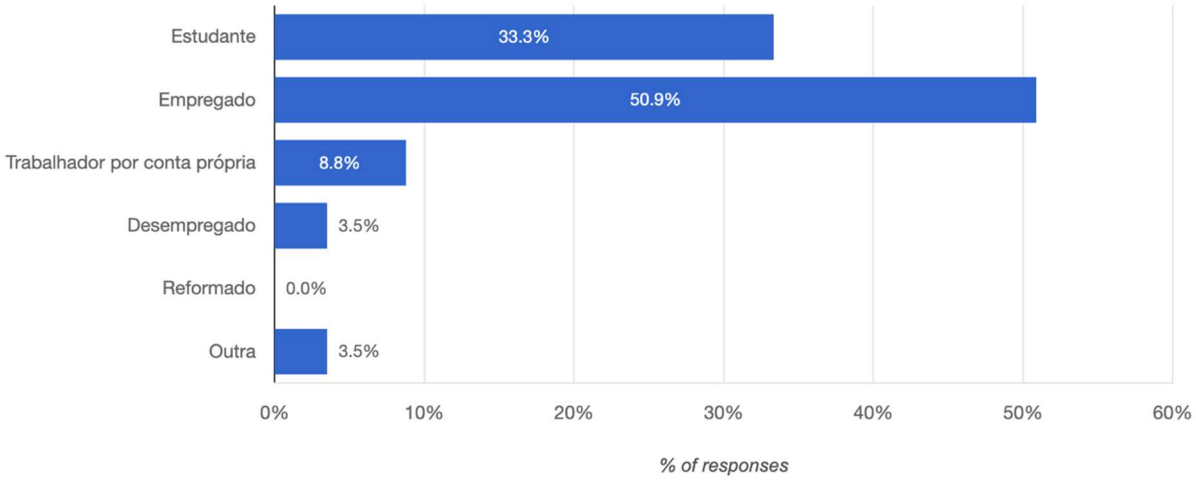

Figure 10 - Distribution of the respondents per monthly household net income (€)

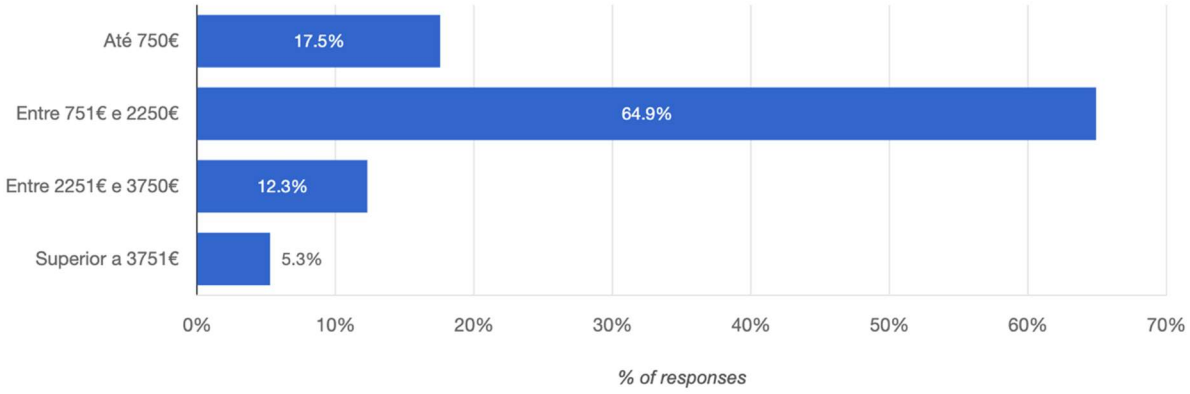

Figure 11 - Relative preference for levels (in %)

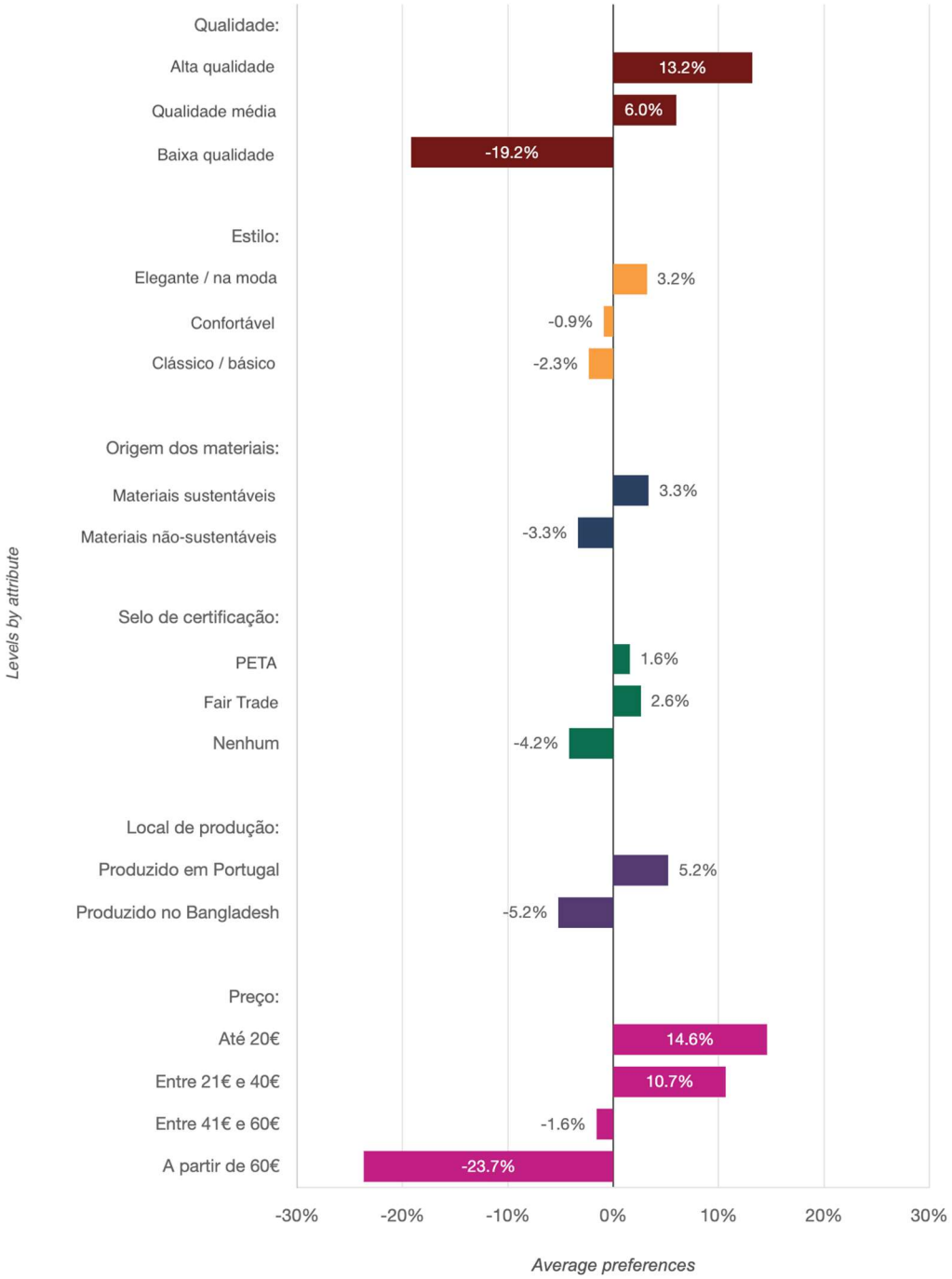

Figure 12 - Updated preference for price levels with price midpoints

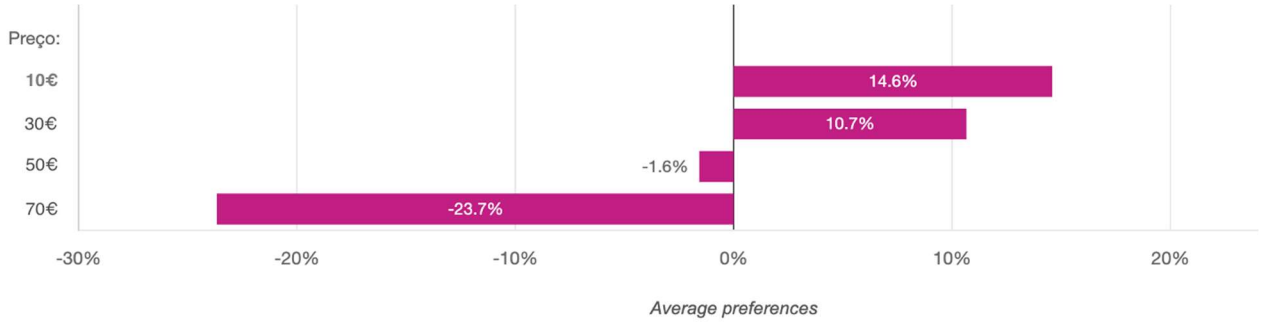

Figure 13 - Preference Shares for price difference