



Which are the perceptions and main drivers/motivations that lead consumers to buy sustainable products: The case of Portuguese sustainable swimwear brands

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Dissertation submitted in partial fulfilment of requirements for the MSc in Management with Specialization in Strategic Marketing, at the Universidade Católica Portuguesa, January 2023.

Abstract

With the growing concern for the state of the environment, countless organizations are adopting new processes and materials for the production of sustainable products. Portuguese organizations are no exception, and there are already many brands created by young entrepreneurs who intend not only to enhance the Portuguese swimwear market but also to offer something exclusive created from recycled materials that has a positive impact on the environment.

To this extent, the main objective of this dissertation is to evaluate and understand the major perceptions and drivers/motivations that lead consumers to opt for Portuguese sustainable swimwear brands, besides the analysis of the consumer profile of such type of product.

In order to reach valuable insights, a qualitative method (in-depth interviews) and a quantitative method (online survey) were adopted. After collecting information from existing literature and the analysis of the overall data, it was possible to conclude that psychographic factors, which implicate knowledge of environmental status, behaviours towards a sustainable lifestyle, and attitudes of each individual about sustainability, are the ones that have a higher impact on purchase intentions towards Portuguese sustainable swimwear products. Along with this, individuals with higher educational levels are more aware of ecological problems, especially rising from the fashion industry. In addition, individuals who feel observed and evaluated have higher tendencies toward sustainable purchases.

Hence, it is possible to state that this study contains theoretical and practical advice for (sustainable) brands that seek to incorporate sustainability into their operations in order to convert non-sustainable users into sustainable ones.

Keywords: Sustainability; Fashion Industry; Portuguese Sustainable Swimwear; Perceptions; Drivers

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Resumo

Com a crescente preocupação pelo estado do ambiente, inúmeras organizações encontram-se a adotar novos processos e materiais para a produção de produtos sustentáveis. Organizações portuguesas não são exceção, e são já muitas as marcas criadas por jovens empreendedores que pretendem não só potenciar o mercado português de swimwear como oferecer algo exclusivo criado a partir de materiais reciclados com um impacto positivo no ambiente.

Assim, o principal objetivo desta dissertação é avaliar e compreender as principais perceções e drivers/motivações que levam os consumidores a optar por marcas portuguesas de roupa de banho sustentável, para além da análise do perfil do consumidor deste tipo de produto.

Para obter dados relevantes, um método qualitativo (entrevistas) e um método quantitativo (questionário online) foram adotados. Após a recolha de informação de literatura existente e da análise dos dados, foi possível concluir que os fatores psicográficos, que implicam o conhecimento do estado ambiental, os comportamentos para um estilo de vida sustentável e as atitudes de cada indivíduo em relação à sustentabilidade, são os fatores que maior impacto têm nas intenções de compra de produtos de banho sustentáveis portugueses. Adicionalmente, indivíduos com níveis de escolaridade mais elevados estão mais atentos aos problemas ecológicos, principalmente oriundos da indústria da moda. Para além disto, indivíduos que se sentem observados e avaliados têm maior tendência para compras sustentáveis.

Assim é possível afirmar que este estudo contém orientações teóricas e práticas para marcas (sustentáveis) que procuram incorporar sustentabilidade nas suas operações, a fim de converter indivíduos não sustentáveis em sustentáveis.

Palavras-chave: Sustentabilidade; Indústria da Moda; Roupa de Banho Sustentável Portuguesa; Perceções; Drivers

Título: Quais são as perceções e os principais drivers/motivações que levam os consumidores a comprar produtos sustentáveis: O caso das marcas portuguesas de roupa de banho sustentável

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Acknowledgements

First of all, I would like to thank my advisor, Miguel Rita, for all the availability and support given throughout the dissertation writing process. Furthermore, the writing of this dissertation would not have been possible without the help of all the individuals who were available to participate in the in-depth interviews and online survey. A special thanks to all of them.

Finally, my biggest thanks goes to my family and friends, who have made sure to be present at all times throughout these five years of bachelor's and master's degrees and who have always supported me in all my decisions.

Thank you all.

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List of Abbreviations

EIAV - Environmental Ideas, Attitudes, and Values

EK - Environmental Knowledge

FTE - Full-Time Employee

OLS - Ordinary Least Squares Method

PER - Customers' Perceptions Towards Portuguese Sustainable Swimwear

PI - Purchase Intentions

PP - Perceptions Towards Portuguese Sustainable Swimwear

PSY - Psychographic Indicators

PTE - Part-Time Employed

SE - Self-Employed

SPSS - Statistical Package for the Social Science

TL - Type of Lifestyle

VP - Value for Buying Portuguese Swimwear

VS - Value for Buying Sustainable Products

1. Introduction

1.1 - Contextual Trends

With the growing concern for the state of the environment, sustainability has become part of the day-to-day of certain consumers who try to adopt greener measures, namely regarding the world of fashion.

According to various studies, the fashion industry is considered one of the most polluting industries, not only due to the production and consumption processes but also due to the disposability of clothes that have been causing substantial damage to the environment. In addition to this issue, the fashion industry as a system has both social and economic underpinnings, each of which has its own unique effects on society.

Thus, and since sustainability and its achievement require reorganization and the development of new practices, there are already some efforts being made by certain organizations to make it possible to create a more humanitarian society concerned with the well-being of others and the planet. Such efforts lead to the emergence of new ways of thinking and developing products where ecological fabrics (natural, organic, or recycled fibers) are the key point (César et al., 2015). Moreover, the emergence of the slow fashion movement also appeared as an alternative in favor of the sustainable industry. In fact, and opposing to the fast fashion movement, which is characterized by mass production of disposable products, the slow fashion movement prioritizes quality, creativity, and durability (Brewer, 2019).

That said, and despite the efforts and changes implemented by organizations that are already notorious, consumers also need to change certain habits so that sustainability can be achieved at its maximum. In fact, there are already many consumers who are willing to make greener choices and opt for more eco-friendly products. However, there are still some factors that lead other consumers to adopt a more skeptical position in relation to these products not leading to the real intention of purchasing sustainable articles (Park & Lin, 2020).

1.2 - Research and Problem Statement

All things considered, this research aims to try to understand and explore consumers' major perceptions and drivers/motivations in the purchase process for sustainable products. Therefore, and since the creation of small Portuguese sustainable swimwear brands has been a growing

theme, there is an opportunity to investigate and better understand this particular area of the industry, trying to comprehend the profile and the main factors that lead to the actual purchase of Portuguese sustainable swimwear brands that frequently use recycled materials to create unique swimwear articles.

Presented the research statement, the main research questions to be studied are:

RQ1 - Which are the main characteristics that define a consumer who buys Portuguese sustainable swimwear products?

RQ2 - Is sustainability a central point in a consumer's daily life to be considered in their purchasing decisions of Portuguese sustainable swimwear products?

RQ3 - Which are and how can the different drivers and motivations affect the intentions consumers have for Portuguese sustainable swimwear products?

RQ4 - Which are the main barriers that consumers face when thinking about sustainability in the fashion industry and that avert them from buying Portuguese sustainable swimwear products?

To answer the research questions, a qualitative approach as well as a quantitative method, which will be later explained, were adopted in order to get the necessary information to study the perceptions and main drivers that lead consumers to buy sustainable products, specifically studying the case of Portuguese sustainable swimwear brands.

1.3 - Relevance

Based on the research questions defined above and knowing that the population has become more aware of and concerned with the state of the environment, as well as all the new methods and materials that are currently available for the creation and production of more sustainable and environmentally friendly products, the present dissertation will be mostly relevant for sustainable brands.

In other words, this dissertation can help sustainable brands better understand the main intentions and core drivers that lead consumers to opt for sustainable types of products. Along with this, brands may also get a better idea of the habits and routines of their customers, which will allow them to have more tools to develop new processes and methods that will be helpful

in the definition of new communication and persuasion strategies that may lead consumers to choose sustainable products when both sustainable and non-sustainable options are available.

1.4 - Dissertation Organization

The present dissertation is divided into five chapters. Starting with the introduction, a brief discussion of the overall topic is approached, the major problem to be studied is explained, and the main research questions are presented. Chapter number two depicts a review of the already existing literature regarding the variety of topics related to the major themes of the present study. It starts with the concept of sustainability, the fashion industry and the environment, fast fashion consumption vs. sustainable consumption, the main motivations to buy sustainable, and an overview of the existing sustainable and non-sustainable markets in Portugal. Afterwards, the methodology chapter as well as the analytics and results chapter are introduced, both divided into sub-topics. Finally, the last chapter gives an outline of the main findings of the entire data collected from primary and secondary data in order to answer the initial proposed research questions, in addition to some action steps that organizations and brands may adopt. To finalize, a sub-chapter dedicated to limitations and some recommendations for future research is offered.

2. Literature Review

2.1 - Sustainability Awareness

Starting with a basic description of sustainability, it is possible to say that it can be thought of as the characteristic or state of what is sustainable. That said, it seems to be a very straightforward definition, however it is necessary to keep in mind that it encompasses far more than just slowing down fast consumption, using organic fibers, or cutting back on energy and water use. It is essential to consider the breadth of this term as well as all its implications, which provide a broader perspective on the reality of sustainability worldwide.

Among the various definitions of sustainability, the most accepted and referenced comes from the Brundtland Report “Our Common Future” which defines sustainability as “*the development that meets the needs of the present without compromising the ability of future generations to meet their own needs*” (Report of the World Commission on Environment and Development, 1987). Over the years, the definition has become more specific starting to include profit, planet, and people to represent the fair and equitable combination of economic, environmental, and social performance (Geissdoerfer et al., 2017).

Overall, when discussing the topic of the fashion industry, it is crucial to consider not just the concept of sustainability but also other equally important concepts, such as the concept of social responsibility and individual awareness.

2.2 - Fashion Industry and the Environment

From an early age, the fashion industry stood out as a symbol of high revenues and employment, as seen with the creation of countless work positions. However, the speed, number, and location of players led to many changes, including in the environment, which has been changing at a fast pace due to human actions and big industries (Brewer, 2019).

Over the last 30 years, the fashion industry has changed into what is today seen as a very competitive market that needs constant upgrades in the fields of products and services (Djelic & Ainamo, 1999). In fact, with the emergence of new competitors, the change in the customer base, the creation of fashion seasons, and globalization, the traditional structure of the luxury industry of fashion has been challenged, leading to what is currently known as “fast fashion”. This is one of the primary causes of the fashion industry's significant environmental impact, as

it results in an increased number of goods with shorter life cycles, followed by a fall in retail pricing (Claxton & Kent, 2020), to tempt consumers into stores as frequently as possible in order to improve their shopping frequency (Turker & Altuntas, 2014).

All the processes involved in the manufacturing and production procedures of such products lead to the huge challenge that manufacturing industries face. In fact, the reduction of environmental impact has always been a challenge for all sectors, however, for the manufacturing industries, this has proven to be particularly challenging.

Known for being the second most polluting industry in the world (Legere & Kang, 2020), accounting for 10% of carbon emissions (Conca, 2015), the fashion industry is recognized for the excessive use of energy, water, chemicals, and pesticides, as well as the incineration or landfill disposal of vast amounts of unsold stock (Pal & Gander, 2018).

2.3 - Fast Fashion Consumption

Many people's sense of self has been inextricably linked to their sense of style, which they utilize to communicate with others and enhance their own sense of happiness (Belk, 1998). However, fast fashion's speed, variety, and low prices have changed the way people think about how much clothes are worth.

Nowadays, fast fashion is characterized by different styles and is often described as something disposable since the articles are made with cheap labor and materials with the aim of not being durable (Mcneill & Moore, 2015). In fact, the main objective of certain fast-fashion brands is to create several collections so that consumers are always buying something new, even if their quality is not the best. According to several studies, younger female consumers are the ones who most support certain brands to continue with this reasoning of short product life cycles, as they are part of the population that has less awareness regarding the impact, both social and environmental, that their fashion consumption for new products has (Morgan & Birtwistle, 2009).

Overall, fast fashion gives people the freedom to make choices with little financial or emotional cost, as well as the chance to show off their sense of style through what they buy and own (Gabrielli et al., 2013).

2.4 - Sustainable Consumption

For the sustainability definition to be put into practice, many organizations are already trying to redouble their efforts to create and implement greener and more environmentally friendly measures. Industries “*seek to preserve natural resources, minimize the harmful effects of their actions on the environment, and contribute to enhancing the overall quality of human life.*” (Jang & Zheng, 2020)

The fashion industry is not left out of this group of organizations, as a variety of laws and regulations were established to protect the environment, prompting organizations to develop environmental management systems to ensure compliance with the rules (Garbie, 2015).

Smaller brands are also beginning to adopt more environmentally friendly practices, such as the use of surplus materials and eco-friendly fabrics made with low water consumption and non-toxic dyes. In addition to these measures, partnerships with ethical factories that present transparency in their production processes are starting to be part of the day-to-day of the new brands that are beginning to appear.

All in all, it is necessary to understand that sustainability has two sides: the side of companies that increasingly try to find new methods and materials of production, and the side of consumers who seek more exclusive and environmentally friendly solutions. Without the cooperation of both parties, the definitions of sustainability and sustainable consumption could not be fully met.

2.4.1 - Intentions/Motivations Towards the Consumption of Sustainable Products

A consumer's choice is always influenced by certain factors. In the following section, some of the most important factors regarding the study and comprehension of consumer choices for sustainable products will be presented, starting with a brief description of the theory of planned behavior and following with the influence of social influences, the involvement with the environment, and the willingness to pay more for sustainable products. All these factors are presented and treated in numerous ways, leading to a variety of different choices made by consumers.

2.4.1.1 - Theory of Planned Behavior

Representing a widely known method that was first adapted from the Theory of Reasoned Action, the Theory of Planned Behavior provides a complete framework that allows the analysis

and understanding of the main factors that are able to influence the decision of consumers to engage in certain behaviors related to environmental issues, as well as the implications that such factors have on the purchasing decision of sustainable products (Bosnjak et al., 2020).

The theory is based on two behaviors, the first of which is related to the way consumers process all the information they have at their disposal to act rationally. Secondly, and after the establishment of the true intention of conduct, which is usually based on attitudes and subjective norms that help in the establishment and strengthening of the self, the behavior is given.

All in all, the theory is composed of different stages, the first being related to attitudes (the degree of a person's positive or negative appraisal of a good product, service, or behavior), subjective norms (perceptions and peer pressure from close friends and family to act in a particular way), and perceived behavioral control (the ease or difficulty an individual encounters in having a certain behavior). The second stage is made up of the intentions and motivations that a person might or might not have to act in a certain way, and finally, the third stage has to do with how a person responds to an explicit intention or motivation (Ajzen, 1991).

Overall, and having in mind that buying sustainable reflects a deliberately conducted activity wherein all relevant factors are considered in advance of taking any kind of action, the Theory of Planned Behavior is crucial to comprehend consumers' motivations for purchasing environmentally friendly products. Some of the most important factors consumers keep in mind while deciding their ultimate action will be explained in the following sections.

2.4.1.2 - Social Influences

Social influences are seen as the first way to affect sustainable consumer behavior, as consumers are frequently wedged by the presence, behaviors, and expectations of others (White et al., 2019). From the perspective of Abrahamse and Steg (2013), "*Social factors are one of the most influential factors in terms of effecting sustainable consumer behavior change.*"

Within the category of social influences, it is possible to define three points that are seen as favorable to change the behavior of consumers in order for them to behave in a more sustainable way: social norms, social identities, and social desirability.

Social norms are seen as the standards or rules that define whether a behavior is acceptable within a community or group and can therefore have a strong influence on sustainable behaviors. In the definition of social norms, it is still possible to make the distinction between

descriptive norms and injunctive norms. The first term concerns the thoughts, feelings, and actions that most people who are part of a particular group have, feel, and do and should be combined with similar contexts as a reference (Fornara et al., 2011). Whereas injunctive norms relate to the approval or not of the behaviors that group members have. For the latter to have a more effective result, they must be combined with group thoughts that do not threaten feelings of autonomy and independence (White et al., 2013).

Regarding social identity, it can be seen as the perception and knowledge a person has about their belonging to a certain social group.

Social desirability is also an important part of social influence, and that refers to the selection consumers tend to make to get a positive impression on others (White et al., 2019). According to some studies, certain consumers are more conducive to adopt socially desirable behaviors in environments where they feel observed and evaluated by others (Green & Peloza, 2014).

2.4.1.3 - Environmental Involvement

Previous studies show that the level a person has to involve with the environment comes either from their values and personal norms, type of life, or knowledge.

A consumer's decision to buy environmentally friendly products may be affected by their values and their way of life. According to Fraj and Martinez (2006), it is also possible to affirm that consumers who feel a stronger affinity for the natural world and who actively work to protect it are more likely to be receptive to and interested in purchasing sustainable and ecological goods. In addition, this type of consumer views environmentally conscious companies and initiatives favorably.

In contrast, knowledge is the variable for which there are no agreed-upon answers. Some researchers have found that consumer knowledge plays a significant role in their decision to seek out and purchase environmentally friendly items (Eze & Ndubisi, 2013); other researchers have found no correlation between consumer awareness and their intention to purchase environmentally friendly products (Ramayah et al., 2010). Moreover, while most consumers are aware that environmental impact should be considered during product selection, research by Butler and Francis (1997), shows that few actually do so. In contrast, Kim and Damhorst, (1998), argued that consumers' concern for and focus on environmental features while making purchasing decisions would increase in proportion to the extent to which they understood those attributes

2.4.1.4 - Willingness to Pay More for Sustainable Products

Over the last few years, with the increasing awareness of the state of the environment, consumers' interest in environmentally friendly products has increased, making them try to apply them in their daily lives by consuming those type of products. In fact, the number of consumers who define themselves as “green consumers” has been increasing day by day.

According to some authors, green consumers as those individuals who are devoted to the environment (Siddique & Hossain, 2018) and who are knowledgeable in environmental issues (Mohd Suki & Mohd Suki, 2015).

In reality, there are studies that show that although some eco-conscious consumers are price sensitive (D'Souza et al., 2006), there are still others who are totally willing to spend a little more and pay premium prices to access greener products and services (Shi & Jiang, 2022).

This willingness to pay more for green products comes not only from the influence that product value has on each consumer when buying this type of product, but above all from internal factors such as consumer attitudes and principles that represent the primary drivers of a consumer's willingness to pay more for sustainably made goods (Cheung & To, 2019).

That said, and in accordance with Arli (2018), consumers who are knowledgeable and have expertise regarding environmental issues and who agree that measures need to be taken to prevent the continuous degradation of the environment, which can be done by opting to purchase sustainable products, are more likely to be willing to pay a premium price for these items.

2.4.2 - Consumer Profile

Most studies have created a consumer profile for sustainable products based on demographic (age, gender, income, and level of education) and psychographic (attitudes, perceived consumer effectiveness, and environmental matters) factors.

Starting with the demographic factor age, which has been explored by several marketing researchers, it is not yet possible to confirm the existence of an age group that has a positive correlation between age and the adoption of sustainable behaviors. In what pertains to gender, studies show that women are more aware of and concerned with the environment than men, making them more likely to select and opt for greener and more sustainable actions and behaviors (Mainieri et al., 1997). This fact is related to the prevalent gender stereotype that

associates women with environmentally conscious actions, making it difficult for men to embrace these values without feeling their masculinity challenged (Brough et al., 2016).

When it comes to the income level, it is possible to assume a positive relation between this factor and some ecologically friendly attitudes since, as a rule, sustainable products have a higher price than the so-called “normal” products (Straughan & Roberts, 1999). In fact, consumers with a higher level of income will find it easier to accept and support the cost increases associated with green initiatives and more sustainable products.

Furthermore, and with regard to the level of education a consumer has, the findings of several studies are still contradictory. If some believe that individuals with higher levels of education and who therefore have access to more information would be the first to be more concerned about the environment and all the changes happening, thus adopting more sustainable behaviors, there are other studies (Mainieri et al., 1997) that state that the level of education has no correlation or is negatively correlated with environmental attitudes.

Regarding psychographic factors and taking into account some of the information presented in the Theory of Planned Behavior, analyzing more specifically the definition of attitudes, it is possible to state that it also includes some consequences that certain behaviors may bring to consumers. Several studies show that consumers with a positive attitude towards the environment and sustainability will be more conducive to make changes in their routine regarding their consumption decisions. Thus, attitudes are directly related to behaviors linked to sustainability. When it comes to the perceived behavioral control, it is possible to highlight two main influences: convenience and price. Speaking specifically of environmentally friendly products, for consumers to feel that these are the most viable and feasible options, they should be of good value and easily accessible. The knowledge consumers have on the part of brands that represent products may also be a factor to be considered, and that may help in the selection of sustainable articles.

In general, and according to Straughan and Roberts (1999), when analyzing eco-friendly and sustainable actions, it is more useful to focus on a person’s personality and values than on their demographics. As a result, it is possible to infer that customers' care for the planet and the effect of their purchasing decisions are more accurate predictors of their preferences when analyzing purchasing options.

2.4.3 - Decision Making Process

There are already several studies that show that the final decision-making process of a consumer for sustainable products and initiatives is complex and difficult (Niinimäki, 2010). In fact, there are several reasons that lead certain consumers to choose more sustainable products and services, while others are still skeptical about the adoption of similar measures.

The most common factor that leads to the choice and purchase of sustainable products is the perceived value of the articles. Consumers prefer to purchase products of higher value that present fabrics and materials of superior quality known to be made by brands that care about the environment and that support and behave according to a work ethics protocol. In addition to the price and value of the brand, factors such as trends, seasonal collections, and brand image are also determinants in the consumer's decision-making process. Furthermore, and since sustainable brands have as a "rule" the conscious production of articles, the uniqueness factor is also pointed out as a key motivator to buy sustainably (Ozdamar Ertekin & Atik, 2015).

On the other hand, the main reasons that lead to the existing gap between the attitude and the purchase behavior of consumers regarding sustainable products are the perceived lack of variety and style, the misunderstanding of the concept of slow fashion, the lack of knowledge and consumer education regarding the impact that the fashion industry and consumer options have on the environment, and the low availability of physical stores (Joshi & Rahman, 2015).

Additionally, it is also important to mention that, depending on the type of product or service consumers are looking for, the decision-making process will also have some variations. That is, for certain consumers, the option of sustainable products will be easier on food products than on textile products since the former are considered more important and have a major influence on the day-to-day lives of consumers than the latter (Fu & Kim, 2019).

2.5 - Swimwear Market in Portugal

2.5.1 - Non-Sustainable Market

Like any other market, the non-sustainable market has many brands with a variety of products that are different in many ways, including how they are made, the materials used, the quality, and the price.

Regarding the Portuguese non-sustainable swimwear market, the growth that it has endured over the years is notorious. The market has been gaining new participants, namely small Portuguese brands created by young and aspiring entrepreneurs who felt the need to create something unique and different with a higher and better quality that could value the swimwear market in Portugal.

With the discovery of the lack of products that valued the Portuguese swimwear market, smaller Portuguese brands such as Summer Factory, Cantê, Latitid, Papua Swimwear, and Missus began to emerge, offering consumers exclusive swimwear products designed and developed by specialized teams in the production of beachwear that stand out for the difference and excellence of the fabrics used. Based on a more specialized team and the use of superior quality materials, the values of the items sold by these brands are slightly higher than the pieces sold by fast-fashion brands, reaching values of between 70€ and 150€ per product.

2.5.2 - Sustainable Market

With the increasing concern for the environment and knowing that staying away from fast fashion and being more aware of their own choices is the way forward, companies had the opportunity to discover and create alternative production processes that would be less harmful to the environment. Thus, Portuguese premium swimwear brands began to emerge, committed to providing unique and high-quality swimwear pieces that could stand out from other brands for having a commitment with the environment. This is how brands like Conscious *The Label*, 38 Graus, Kekaaii, DCK, VanillaSand, and Panareha began to emerge, making extraordinary swimwear from recycled pieces.

› Conscious *The Label*

Conscious *The Label* represents a premium swimwear brand that produces collections from ocean plastic and waste. Created in 2019, Conscious *The Label*, located in Lisbon, is currently a dreamland that offers bikini pieces, swimsuits, and apparel where “*the passion and dedication to change the world around labels and the concept of stopping the fast pace and materialistic society*” are part of the day-to-day of Joana Silva – Founder and Head Designer of Conscious The Label.

All pieces of the brand are produced locally by a team of local seamstresses already experienced in swimwear. This proximity between the whole team allows a high degree of involvement in the entire production process as well as the guarantee of the least

possible waste of materials. In addition, the brand also ensures that all workers are ethically treated, that the articles produced are of the highest quality, and that they do not compromise the company's work ethics. The brand-specific material used in the manufacture of swimwear articles is Italian Econyl, a fabric made of regenerated nylon.

› 38 Graus

Created in 2017 by Marta Oliveira, the brand defines itself as being warm and conscious, sustainable, and adaptable. With pieces designed and produced in Portugal, the brand is also adept of Econyl, a material that is used in bikini and swimwear pieces.

The brand's mission is to contribute to a more sustainable world and encourage a circular economy, so it has just launched a new project that aims to give a second life to swimwear articles already worn. The process is simple: consumers send to the store or hand deliver the swimwear or bikini of the brand that is no longer used, which, after checking its status, is put up for resale at reduced prices. For each bikini in good condition, the brand delivers a 30-euro voucher to be discounted on the next purchase.

It was through the growth of applications for the sale of used products that the entrepreneur saw an opportunity to "*give a new use to the pieces that end up being forgotten.*" According to Marta, "*The truth is that today, customers seek to consume consciously, and the company has noticed these changes by observing a generation increasingly concerned with how it consumes and the brands it chooses.*"

› DCK

Born in 2009, and after a recognition by the creators of the need to add more quality to the articles, DCK began to produce in Portugal those that would be the most epic sustainable swim shorts of the summer. Based on the moto "Enjoy Life", the brand wants consumers "to get out there and enjoy each day, make the most of every moment instead of staying home or wasting time". Committed to joining initiatives that address the impact of the fashion industry on the environment as well as to reinforce the commitment to preserve the planet, the brand has launched a collection of swim shorts made with hemp and other materials with biodegradable characteristics and a new technology designed by Ciclo. "*The collection has the same quality, but the environmental impact is less. The articles will decompose naturally in the right environment.*", affirms Cheryl Smyre, responsible for the new technology.

› VanillaSand

VanillaSand was founded in 2018 by Corinna Dickenbrok and represents another brand of swim shorts made of Econyl. In addition to this material, the brand also stands out for the use of organic cotton, which allows the protection of soils and the reduction of water consumption in production processes, and the use of 100% bamboo, which represents a natural fiber that is versatile and light. VanillaSand proves that “design and sustainability go together and are mindfully creating our own standards according to our core values.” Being sustainable at all points of the production process is a priority for Corinna Dickenbrok and all her suppliers are handpicked small artisans who support fair trade.

Generally speaking, all brands try to produce their bikinis and swimsuits from salvaged materials that involve the recycling of waste in order to create something new. Here it is possible to include the use of plastic bottles, fishing nets, and nylon to create Econyl (an 100% recycled lycra derived from industrial waste). For all the specialized labor and all the processes necessary for the reuse of materials, the value of the items sold by sustainable brands can vary from 50€ to 120€.

3. Methodology

The current chapter will be divided into three sections presenting and explaining the overall methodology used in this study to answer the research hypothesis that will be further indicated. That said, hypothesis formulation will be introduced, followed by the research methods and data collection processes used to gather the necessary knowledge from primary data. Lastly, data analysis will present how data was structured and organized to obtain useful and valuable insights.

3.1 - Hypothesis Formulation

H1 - Motivations to buy Portuguese sustainable swimwear products are influenced by demographic and psychographic characteristics, where:

H1.1 - Female gender is positively related with major intentions to purchase Portuguese sustainable swimwear products.

H1.2 - Income level is positively related with ecological attitudes and major intentions to purchase Portuguese sustainable swimwear products.

H1.3 - Value and convenience are positively related with major intentions to purchase Portuguese sustainable swimwear products.

H1.4 - Psychographic factors outperform demographic factors regarding consumers' intentions and motivations towards the purchase of Portuguese sustainable swimwear products.

H2 - Mass products, where the price difference between non-sustainable formal products and sustainably produced products is lower, will create higher purchasing intentions/motivations than superfluous products, usually with higher prices, where Portuguese sustainable swimwear products can be included.

H3.1 - Consumers who feel observed and evaluated have higher intentions/motivations to purchase Portuguese sustainable swimwear products.

H3.2 - Consumers that have a sustainable lifestyle have higher intentions/motivations to purchase Portuguese sustainable swimwear products.

H3.3 - Consumers who are knowledgeable about the environment have higher intentions/motivations to purchase Portuguese sustainable swimwear products.

H4 - Perceptions about sustainable swimwear products influence the purchase of Portuguese sustainable swimwear products, where:

H4.1 - Uniqueness of the articles will have a positive influence in the purchasing process of Portuguese sustainable swimwear products.

H4.2 - Consumers' lack of information about the impact of the fashion industry will have a negative influence in the purchasing process of Portuguese sustainable swimwear products.

3.2 - Research Method

As already mentioned, the present dissertation has as main objective the characterization and study of the perceptions and main drivers/motivations that lead consumers to opt for sustainable products, more specifically Portuguese sustainable swimwear brands.

For this, and after the collection of existing secondary data through a search of relevant literature on the topics in question, a qualitative method (in-depth interview) was employed. In fact, this method allows individuals to express their ideas and thoughts more freely, also helping the researcher to understand certain aspects in a more contextualized and detailed way when compared to quantitative methods (Graebner et al., 2012). Thus, it is possible to mention that the main objective of using in-depth interviews was to learn more in detail about a specific topic - perceptions and drivers/motivations individuals have regarding Portuguese sustainable swimwear articles and brands - and not to try to obtain information that would lead to major generalizations, which is the case of quantitative methods (Polit & Beck, 2010). In addition, by using the qualitative method, it was also possible to pre-test the already formulated hypothesis. That said, and not disregarding the importance of quantitative methods, an online survey was subsequently carried out with the objective of collecting more primary data on the profile of consumers of Portuguese sustainable swimwear articles identifying the relationship between the variables being studied, test the proposed hypothesis, and answer the research questions stated before.

3.3 - Data Collection

3.3.1 - In-Depth Interviews

In relation to the in-depth interviews (Appendix 1) conducted on eight individuals, it was possible to distinguish between users and non-users of Portuguese sustainable swimwear articles. In this case, users represented consumers who have already purchased some kind of Portuguese sustainable swimwear product, and non-users represented those who have never bought any kind of Portuguese sustainable swimwear product. In the process of making this distinction between users and non-users, two interviews were developed that followed a semi-structured format. In fact, the interviews had some common questions and asked respondents about a specific topic where they were encouraged to develop their ideas and thoughts.

The first interview was addressed to users, and in addition to trying to understand what was the meaning of sustainable consumption for them, it also addressed questions that tried to ascertain which were the main characteristics that consumers look for in Portuguese sustainable swimwear articles, which were the main drivers that lead consumers to opt for Portuguese sustainable swimwear articles, and how do consumers think that Portuguese brands of sustainable swimwear provide environmental or consumer benefits. In addition to these questions, and as will be seen in the interviews conducted with non-users, users also had to answer questions related to the relevance that sustainability in the fashion industry had for their purchasing options, as well as the relevance and ease with which they could make more sustainable choices in products considered essential and of first necessity.

Regarding the second interview, which was directed at non-users, the main objective was to discover the main barriers that prevent consumers from opting for Portuguese sustainable swimwear products and the main changes that certain Portuguese sustainable swimwear brands could adopt so that it would be possible to convert more non-sustainable consumers into sustainable consumers.

As a result, in addition to the introductory questions in which consumers were questioned about their understanding of sustainable consumption and how they perceived sustainability in the fashion industry and in the purchase of simpler and non-superfluous items, questions such as "What could make you act differently, that is, what is the biggest change you believe brands could adopt to convert more people to buy sustainable articles, and more specifically,

Portuguese sustainable swimwear?" and "How do you believe consumers may impact the fashion industry's attempts to become more ecologically conscious?" were also asked.

3.3.2 - Online Survey

As for the online survey (Appendix 2), where data was collected between the 11th and the 24th of November 2022, it was developed using the Qualtrics platform. The questions were aligned with the hypothesis and to ensure that the questionnaire was error free, a pretest was conducted. Subsequently, the questionnaire was revised and sent to the participants using some social media platforms such as Facebook, WhatsApp, and Instagram.

Based on the information collected in the literature review and on the hypothesis formulated, the survey was divided into six sections. The first section consists of three questions whose main objective was to analyze the closeness that respondents have with sustainable swimwear and Portuguese sustainable swimwear brands. The following three sections all feature an introductory message that explains respondents which specific topic the questions will focus on. Among these themes, it is possible to mention ideas, attitudes, and values regarding the environment, environmental knowledge, and type of lifestyle. The fifth section is more specific and relates to perceptions and purchasing intentions towards Portuguese sustainable swimwear articles. Finally, in the last section respondents were confronted with demographic questions where it is possible to highlight questions related to age, sex, nationality, educational level, employment status, and level of income.

3.3.2.1 - Measures/Constructs

With the intention of evaluating respondents' perceptions regarding beliefs, perspectives, and ideals concerning the environment, environmental knowledge, their type of lifestyle, and the value placed on Portuguese swimwear and sustainable products, a five-point Likert Scale from 1= Strongly Disagree, until 5 = Strongly Agree, was used.

Table 1: Measures/Constructs

Measure	Items	Scale
Environmental Ideas, Attitudes, and Values	8	5-point Likert Scale
Environmental Knowledge	7	5-point Likert Scale
Type of Lifestyle	6	5-point Likert Scale
Perceptions Intentions Towards Portuguese Sustainable Swimwear	6	5-point Likert Scale
Value for Buying Portuguese Swimwear	9	5-point Likert Scale
Value for Buying Sustainable Products	8	5-point Likert Scale

3.3.2.2 - Data Analysis

In order to get all the data analysed, first a sample characterization of demographic variables such as age, gender, nationality, educational level, current employment status, and monthly income was performed, using simple frequency tables. Concerning the variable income, it presented 32 missing values which were replaced with the median of nearby points, following one of the procedures for treating missing values offered by the software SPSS.

Afterwards, and to validate the measures indicated above, Cronbach's alpha was calculated to evaluate the scale reliability of each construct.

To investigate the impact of the measures/constructs and the demographic variables in the perceptions towards Portuguese sustainable swimwear, a regression model was estimated through the Ordinary Least Squares Method (OLS). However, since several constructs were highly related, which could create a multicollinearity problem in the regression model, a Factor Analysis of the six measures/constructs was performed. By using this method, it was also possible to reduce dimensionality.

Thereafter, to compare the perceptions towards Portuguese sustainable swimwear between those individuals who usually buy mass products with those who usually buy superfluous products (where sustainable swimwear products were considered), a previous check of normality conditions was made using Kolmogorov Smirnov or Shapiro Wilt test, depending on the sample size. Since normality conditions were not fulfilled, the Mann Whitney U test was the one used.

Moreover, to establish the appropriate correlations between some particular items of interest, which were measured using a Likert Scale and therefore were considered ordinal variables, with perceptions towards Portuguese sustainable swimwear, the Spearman correlation coefficient was used.

Finally, and in order to assess the relationship between some demographic variables and the perceptions towards Portuguese sustainable swimwear, the last variable was recoded into categories and the Chi-Square tests were performed. The Phi coefficient was also considered to analyse the intensity of such relationships (higher values of the coefficient indicate stronger relations) with residual analysis to identify categories where the relationship was present.

For all statistical tests, significance levels of 10%, 5% or 1% were used and IBM SPSS Statistics version 27 to accomplish the analysis.

4. Analytics and Results

This chapter has the purpose of understanding the data that was collected and the respective analysis of the in-depth interviews and online survey that were accomplished according to the methodology presented before. The primary goal is to reach out to conclusions regarding the research questions that were introduced in the first chapter.

A brief sample characterization is made, besides the validation of the in-depth and survey responses.

4.1 - In-Depth Interview Findings

In the interviews carried out, it was possible to obtain the response of eight individuals (7 Portuguese and 1 German) aged between 22 and 57 years. All interviewees are residents of Portugal and have educational levels that vary between bachelor's, master's, and MBA's.

As already mentioned, it was possible to divide the interviewees into users and non-users. The major findings will be presented in the section that follows.

› *Users:*

First, when faced with the question of what sustainable consumption was, all respondents mentioned a type of consumption not solely based on necessity but a consumption that is also aware of its impact on the environment.

Regarding the practice of living a sustainable life, all respondents claim to have a sustainable lifestyle, with the most common measures mentioned being a meat-free diet, recycling, and buying second-hand clothes.

When asked whether sustainability in the fashion industry represents a pertinent topic in their everyday shopping choices, respondents state that they keep sustainability in mind when making their choices and consider that the same is true for simpler products. In the latter type of products, individuals consider it easier to adopt sustainable measures, namely due to the reduced-price difference and variety of products offered. One interviewee even stated that *"When it comes to simpler products, I feel like there is a more diverse range that is able to cover the integrity of the market, which allows me to usually buy in a more sustainable way."*

The four interviewees had already purchased Portuguese sustainable swimwear articles, being the best-known brands 38 Graus, Conscious *The Label*, DCK, and VanillaSand.

In response to the main features that respondents look for when purchasing Portuguese sustainable swimwear articles, the answers were consensual, with quality, national production, exclusivity, and the sustainability concepts underlying each piece being the most mentioned features.

As for the main drivers, knowledge of the state of the environment and knowledge of the concept of fast fashion vs. slow fashion were the most cited.

Finally, and concerning the question “In which way do you consider that Portuguese sustainable swimwear articles provide environmental or consumer benefits? Which are the primary ones?”, the most common responses were the opportunity to help preserve the environment, the opportunity to fight against the fast fashion movement, and the opportunity to reuse certain materials to create something unique and more ecological.

› ***Non-Users:***

As for the analysis of the interviews carried out with 4 non-users of Portuguese sustainable swimwear articles, it was possible to perceive the main barriers that prevent them from acquiring this type of product.

Starting by understanding what sustainable consumption meant for each one, it was possible to reach the common idea that it is based on a conscious consumption that must meet the individual needs of each one as well as the needs of the population in general, causing the least common damage to the environment. The definition is therefore based on a state of alert regarding the processes necessary for the production and delivery of a certain good or service - *"It is based on the care we have about the raw materials that were used, the conditions of the employees that produced it, the environmental impact that the production, packaging, and delivery has on our planet, plus the options you have when the product reaches the end of its life."* Furthermore, one interviewee even defines sustainable consumption as *"The use of products or services that are, respectively, manufactured or made available through processes that do not jeopardize their future production or availability, and that also do not affect the continued availability of other products or services."*

Regarding the practice of a sustainable lifestyle, all respondents stated that they practice a sustainable life, whether through the practice of recycling, not using plastic, using natural shampoos and soaps, using solar panels and LED lights, or buying and selling second-hand clothes.

Moving on to the third question of the interview - "Is sustainability in the fashion industry a pertinent aspect in your everyday purchasing choices? Why? Why not? What about the purchase of simpler products, do you have the same kind of concerns?", most of the respondents admit that sustainability in the fashion industry is not as relevant as sustainability in the production of simpler products. Respondents recognize that it is easier to adopt sustainable behaviors when talking about simpler and not so superfluous products, since the price difference in simpler products between products produced in a sustainable way and products produced in a non-sustainable way is smaller than in superfluous products.

Furthermore, concerning the main barriers to the purchase of Portuguese sustainable swimwear articles, the high prices, the lack of offer in certain locations, and aesthetics were consensual topics. The main ways mentioned to avoid the defined barriers and make more non-sustainable users into sustainable users were the bet on the availability of attractive products (colors, shapes, patterns), making the market aware of its offer, highlighting its sustainable aspects (more advertising), and making these types of products available at competitive prices.

Finally, in response to the question "How do you believe consumers may impact the fashion industry's attempts to become more ecologically conscious?" respondents believe that the greatest impact will always come from an increase in demand for these products, which will lead to a greater focus on these products by manufacturers. In fact, what we see today is that brands try to become more sustainable not because of their own beliefs but because that's what their consumers are asking for, so as long as consumers keep responding to these new ways of producing and creating products, brands will keep trying to be more sustainable to a point where it becomes the norm.

With this, it was possible to conclude that certain hypothesis were validated. This is the case of H2 - *"Mass products, where the price difference between non-sustainable formal products and sustainably produced products is lower, will create higher purchasing intentions/motivations than superfluous products, usually with higher prices, where Portuguese sustainable swimwear articles can be included"*; H3.3 - *"Consumers who are knowledgeable about the environment have higher intentions/motivations to purchase Portuguese sustainable swimwear products."*; H4.1 - *"Uniqueness of the articles will have a positive influence in the purchasing process of Portuguese sustainable swimwear products."* and H4.2 - *"Consumer's lack of information about the impact of the fashion industry will have a negative influence in the purchasing process of Portuguese sustainable swimwear products."*

4.2 - Online Survey Sample Characterization

Through the online survey, it was possible to register 133 responses, however, only 115 were considered complete responses to the entire survey, thus obtaining a response rate of 86.5%. After eliminating these 18 incomplete answers, a manipulation check was performed using the question "*What colour is the sky? Please answer green.*" where it was possible to eliminate four more participations since the obtained answers were "Blue" (Appendix 3).

This way, only 111 valid responses remained, which will be the total number of responses that will be analysed in this dissertation.

Starting by analysing the ages of the participants, it is possible to mention that the majority are comprehended in the age group of 25 to 34 years old (42.3%), followed by the age group of 18 to 24 years old (22.6%). With regard to gender, it was possible to register 71 responses from female individuals (64%), and 40 responses from male individuals (36%). The nationalities of the participants were not varied, with 108 Portuguese registrations, two Brazilian registrations, and one German registration. Most participants claim to have a graduate degree (82%) and are full-time workers (85.6%). For 48.1% of the participants, the monthly income is between 2001€ and 2500€, the majority have already heard about sustainable swimwear (90.1%) and have even bought Portuguese sustainable swimwear articles (65.8%), even managing to mention some brands of these types of products.

Using frequency tables, the results of the sample characterization are shown in Appendix 4.

4.3 - Scale Reliability

To validate the measures/constructs proposed in the survey, "Environmental Ideas, Attitudes, and Values" (EIAV) with 8 items, "Environmental Knowledge" (EK) with 7 items, "Type of Lifestyle" (TL) with 6 items, "Perceptions Towards Portuguese Sustainable Swimwear" (PP), with 6 items, "Value for buying Portuguese Swimwear" (VP), with 9 items, and "Value for Buying Sustainable Products" (VS), with 8 items, Cronbach's alpha was used to check the reliability of the responses collected from the ordinal Likert Scales.

According to some studies a reliable and valid scale shall yield a value of 0.70 and above (George & Paul Mallery, 2003). The results are shown in Table 2.

The second item of Environmental Ideas, Attitudes, and Values (EIAV): "*Humans have the right to alter the natural environment in accordance with their requirements and to suit their needs*" presents an inverse relation with the remaining seven items (Appendix 5) and is reversed

subtracting by six the actual given answer; the fourth and sixth items of Perceptions Towards Portuguese Sustainable Swimwear (PP): “*More Portuguese eco-friendly beachwear brands are sorely missed*” and “*I believe the price of Portuguese sustainable swimwear articles is reasonable*”; the sixth item of Value for Buying Portuguese Swimwear (VP): “*A Portuguese brand that introduces into its catalogue a product line with sustainable materials and production processes follows other brands*”; and the third item of Value for Buying Sustainable Products (VS): “*How important the following attributes are for you when buying sustainable products – Price*”, were also inversely related with the remaining, so a reversal process was made.

Since the reliability result of each measure/construct was classified as Good (between 0,7 to 0,9) or Excellent (more than 0,9), a composite measure of each was computed by creating the mean value of the answer of each participant in the items of the measure/construct. The results of a descriptive statistic of the new variables are presented in Table 3.

Table 2: Reliability Analysis

Construct	Cronbach's alpha	Quality	Number of items
Environmental Ideas, Attitudes, and Values (EIAV)	0,830	Good	8
Environmental Knowledge (EK)	0,786	Good	7
Type of Lifestyle (TL)	0,923	Excellent	6
Perceptions Towards Portuguese Sustainable Swimwear (PP)	0,750	Good	6
Value for Buying Portuguese Swimwear (VP)	0,851	Good	9
Value for Buying Sustainable Products (VS)	0,730	Good	8

Table 3: Descriptive Statistics of EIAV, EK, TL, PP, VP and VS

	N	Min	Max	Mean	Std. Deviation	Skewness	Kurtosis
Environmental Ideas, Attitudes, and Values (EIAV)	111	2,88	5,00	4,68	0,44	-2,022	4,41
Environmental Knowledge (EK)	111	3,00	5,00	4,62	0,57	-1,34	,51
Type of Lifestyle (TL)	111	2,17	5,00	4,70	0,58	-2,34	5,78
Perceptions Towards Portuguese Sustainable Swimwear (PP)	111	1,00	4,33	2,47	0,77	0,07	-0,36
Value for Buying Portuguese Swimwear (VP)	111	2,44	5,00	4,49	0,57	-1,67	2,16
Value for Buying Sustainable Products (VS)	111	2,43	4,63	4,02	0,45	-1,56	2,09

4.4 - Motivations to Buy Portuguese Sustainable Swimwear

To analyse the relationship between the motivations to buy Portuguese sustainable swimwear products, in a preliminary analysis, two Chi-Square tests were conducted to assess the association between “How likely are you to purchase a Portuguese sustainable swimwear article?” and (1) Gender, (2) Income. The variables gender and income are qualitative – Gender is nominal, and Income is ordinal -, and to relate them with a quantitative variable, this last one should be recoded into categories as well. So, the variable “How likely are you to purchase a Portuguese sustainable swimwear article?” on a scale from 0 to 100, was recoded into three categories, “Very unlikely” (values under 30), “Moderately likely” (values from 31 to 70) and “Extremely likely” (values above 71).

The Phi coefficient (ϕ) was computed to indicate the intensity of the association between the variables and in case of dependence, a residual analysis was performed to identify with which categories the relation lied. Results are shown in Appendix 6.

So, hypothesis *H1.1 - Female gender is positively related with major intentions to purchase Portuguese sustainable swimwear products* **is verified**.

The relation between gender and the probability of buying Portuguese sustainable swimwear articles is not statistically significant ($\chi^2=0,034$, $p=0,983$, Appendix 6). However, looking at the relative frequencies from the total, females are moderately or extremely likely to purchase Portuguese sustainable swimwear articles rather than men.

Regarding *H1.2 - Income level is positively related with ecological attitudes and major intentions to purchase Portuguese sustainable swimwear products*, it is possible to state that it **is verified** as:

- The relation between income and the probability of buying Portuguese sustainable swimwear products is significant ($\chi^2=40,065$, $p<0,001$, Appendix 6). Using the residual analysis, it is noticeable that individuals with higher incomes lying between 2001€ to 2500€ are extremely likely to purchase this type of products; on the contrary, lower incomes are very unlikely to purchase Portuguese sustainable swimwear products.
- The relation between income and ecological attitudes can be derived using Spearman's correlation coefficient, since income is an ordinal variable. The results are presented in Table 4. The correlation value of 0,420 is positive and significant, which allows us to state that the higher the income, the higher the person's ecological attitudes.

H1.3 - Value and convenience are positively related with major intentions to purchase Portuguese sustainable swimwear products **is verified**.

The relation between the construct “Value for Buying Portuguese Swimwear” (VP) and “Value for Buying Sustainable Products” (VS) are positively and significantly related to purchase intentions, with correlation values of respectively 0,487 and 0,411. This can also be verified through the further estimated regression model (Appendix 8), where the psychographic factor is significant to explain the variation in purchase intention (PI).

Table 4: Spearman's Correlation Coefficient

	Spearman's Correlations							
	Gender	Income	EIAV	EK	TL	PP	VP	VS
Purchase Intention (PI)	0,020	0,484***	0,507***	0,397***	0,533***	-0,534***	0,487***	0,411***
Gender		0,032	0,099	0,082	0,025	-0,017	0,086	0,038
Income			0,420***	0,444***	0,602***	-0,700***	0,401***	0,407***
EIAV				0,528***	0,556***	-0,501***	0,586***	0,457***
EK					0,684***	-0,441***	0,629***	0,446***
TL						-0,604***	0,652***	0,497***
PP							-0,469***	-0,383***
VP								0,456***

(*p<0,10; **p<0,05; ***p<0,01)

For a deeper analysis of the impact on purchase intentions of Portuguese sustainable swimwear, a regression model should be estimated, using as the dependent variable purchase intentions (PI) and as predictors all the constructs EIAV, EK, TL, PP, VP, VS, and the demographic variables. However, all predictors are significantly related (Table 4) and that may cause a multicollinearity problem in model estimation through Ordinary Least Squares Method (OLS). Then, a factor analysis (Field, 2013), using a varimax rotation, of the construct predictors was conducted, not only to reduce dimensionality but mainly to assure that those predictors were not related.

The extraction of two factors leads to an explanation of 85,07% of the total variation (Appendix 7). Concerning the first factor, which explains 61,84% of the total, it is mainly created by the

psychographic indicators (lifestyle, knowledge, motivations, attitudes) and is called PSY. The second factor, which explains 23,23% of the total, is represented by customers' perceptions towards Portuguese sustainable swimwear and is called PER.

In relation to the demographic variables, except for gender, they are transformed into binary variables in the following way:

- Age is recoded into zero for ages under 35 years, and one for ages of at least 35 years. The new variable is named AgeD.
- Education is recoded into zero for levels of education less than Graduate, and one for level of Graduate or above. The new variable is named EducD.
- Employment is recoded into zero for unemployed individuals, and one for employed individuals. The new variable is named EmpD.
- Income is recoded into zero for incomes under 2000€, and one for incomes of at least 2001€. The new variable is named IncD.

Since the great majority of the respondents are Portuguese, this variable is not present in the regression model.

So, the regression model is:

$$\widehat{PI} = \beta_1 + \beta_2 PSY + \beta_3 PER + \beta_4 Gender + \beta_5 AgeD + \beta_6 EducD + \beta_7 EmpD + \beta_8 IncD + u$$

is now estimated by OLS, being u the residual.

And the estimated model is (see Appendix 8):

$$\widehat{PI} = 85,193 + 10,477^{***} PSY + 6,560^{***} PER + 1,976 Gender + 2,595 AgeD + 1,417 EducD - 15,005^{***} EmpD + 5,795 IncD$$

(*p<0,10; **p<0,05; ***p<0,01)

H1.4 - Psychographic factors outperform demographic factors regarding consumers' intentions and motivations towards the purchase of Portuguese sustainable swimwear products is verified.

To answer H1.4, the estimated model is presented, with standardized coefficients (Beta), instead of the unstandardized coefficients above, which display the relative importance of each predictor to the dependent variable.

$$\widehat{PI} = 0,606^{***}PSY + 0,380^{***}PER + 0,055Gender + 0,072AgeD + 0,025EducD - 0,290^{***}EmpD + 0,139IncD$$

The most important predictor to explain variation on PI are the psychographic factors, followed by perceptions towards Portuguese sustainable swimwear, and it presents a direct effect on PI, which means that ideas, values, lifestyle, and interests closer to an ecological behaviour improve the purchase intention to buy Portuguese sustainable swimwear.

Also verified are hypothesis:

H3.2 - Consumers that have a sustainable lifestyle have higher intentions/motivations to purchase Portuguese sustainable swimwear products is verified.

H3.3 - Consumers who are knowledgeable about the environment have higher intentions/motivations to purchase Portuguese sustainable swimwear products is verified.

As lifestyle and ecological knowledge are part of psychographic factors, and those are directly related with purchase intentions towards Portuguese sustainable swimwear, it could be said that attitudes, knowledge, and the behaviour each individual has about sustainability improve the intentions to purchase sustainable products, in particular Portuguese sustainable swimwear.

To verify if assumptions of OLS estimation are fulfilled, Kolmogorov-Smirnov normality test for the residuals, Breusch-Pagan test to analyse homoscedasticity of residuals and Durbin Watson test to verify independence of residuals were performed. The results are presented in Table 5. Normality and independence of residuals are verified with 5% level and homoscedasticity is verified with 1% level (see Appendix 9).

Table 5: Assumption Results

	Statistic	Sig
Kolmogorov-Smirnov	0,062	0,351
Breush-Pagan	4,436	0,014
Durbin-Watson	1,959	d _L = 1,528 ; d _U =1,826 (k'=7, n=100)

In relation to *H4.1 - Uniqueness of the articles will have a positive influence in the purchasing process of Portuguese sustainable swimwear products is verified.*

By computing the Spearman's correlation between the items of the question "A Portuguese brand that introduces into its catalogue a product line with sustainable materials and production

processes...” and purchase intention, following Appendix 10, it can be concluded that, in order of importance, products being original, young, and sustainable are directly related to purchase intention in a significant way, improving it. So, the uniqueness of a product (originality, juvenility, and sustainability) leads to higher intentions to purchase the article.

H4.2 - Consumer’s lack of information about the impact of the fashion industry will have a negative influence in the purchasing process of Portuguese sustainable swimwear products is verified.

Through the regression model estimated above, the relation between the construct reflecting environmental knowledge about the impact of the fashion industry on the environment is directly related to purchasing intentions, which means that higher knowledge produces higher purchase intentions or on the contrary, lack of knowledge impacts lower purchasing intentions.

Now, looking at *H2 – Mass products, where the price difference between non-sustainable formal products and sustainably produced products is lower, will create higher purchasing intentions/motivations than superfluous products, usually with higher prices, where Portuguese sustainable swimwear articles can be included is verified.* In fact, purchase intentions are higher for those who buy mass products, but the price that they are willing to pay is not very different from those who buy superfluous.

Since the question “What is the price increase, in %, which you would be willing to pay for sustainable products compared with non-sustainable products?” has three categories (1 – 0% to 15%; 2 – 15% to 30%; 3 – more than 30%) and is measured in an ordinal scale, and the goal is to compare the answers to that question in the categories of mass products, such as food, with superfluous products as clothes, the non-parametric test of Mann Whitney U was applied. Results are presented in Appendix 11.

The null hypothesis of equality of distributions is not rejected, the value of the test statistic is 0,020 and $p=0,984$.

Also, to compare purchase intentions in the people who buy the two types of products, and to decide between parametric and non-parametric tests, Kolmogorov-Smirnov and Shapiro Wilk normality tests were performed (Appendix 12).

For clothes, the sample size is 8, and the Shapiro Wilk statistic was used which value is 0,927, $p=0,490$ and the normality hypothesis is not rejected. For food products the sample size is 103, Kolmogorov Smirnov test was applied, and the test statistic is 0,215, $p=0,000$, and the normality

hypothesis is rejected, then to perform the desired comparison it should be used Mann Whitney U test. The test statistic is 3,600 and $p=0,000$ which leads to the rejection of the null hypothesis of equality distribution of PI in the two categories, which means that purchase intentions differ between Superfluous products and Mass products.

By the descriptive of the variables, it can be concluded that people who usually buy Mass products have higher purchasing intentions (Mean=81,04, Sd=15,20) than people who usually buy Superfluous (Mean=53,50, Sd=22,85).

Considering *H3.1 - Consumers who feel observed and evaluated have higher intentions/motivations to purchase Portuguese sustainable swimwear products* **is verified**.

For this hypothesis Spearman's correlation coefficient is computed between purchase intentions and the items "*I admire people who use environmentally friendly products.*" (Observe), "*I'm pleased if others notice that I use sustainable products*" (Evaluate).

Results are shown in Appendix 13.

Both correlations are significant and positive, which means that purchase intentions are higher when people feel observed and evaluated, but it is stronger (correlation value is 0,424, $p<0,001$) when people are evaluated than when people are observed (correlation value is 0,291, $p<0,001$).

Table six presents an overview of the verification and significance of all tested hypothesis.

Table 6: Hypothesis Testing Results Overview

H1 - Motivations to buy Portuguese sustainable swimwear products are influenced by demographic and psychographic characteristics, where:	H1.1 - Female gender is positively related with major intentions to purchase Portuguese sustainable swimwear products.	Validated, but not significant
	H1.2 - Income level is positively related with ecological attitudes and major intentions to purchase Portuguese sustainable swimwear products.	Validated and significant
	H1.3 - Value and convenience are positively related with major intentions to purchase Portuguese sustainable swimwear products.	Validated and significant
	H1.4 - Psychographic factors outperform demographic factors regarding consumers' intentions and motivations towards the	Validated and significant

	purchase of Portuguese sustainable swimwear products.	
H2 - Mass products, where the price difference between non-sustainable formal products and sustainably produced products is lower, will create higher purchasing intentions/motivations than superfluous products, usually with higher prices, where Portuguese sustainable swimwear products can be included.		Validated and significant
H3 - Attitudes about the environment influence the purchase of Portuguese sustainable swimwear products	H3.1 - Consumers who feel observed and evaluated have higher intentions/motivations to purchase Portuguese sustainable swimwear products.	Validated and significant
	H3.2 - Consumers that have a sustainable lifestyle have higher intentions/motivations to purchase Portuguese sustainable swimwear products.	Validated and significant
	H3.3 - Consumers who are knowledgeable about the environment have higher intentions/motivations to purchase Portuguese sustainable swimwear products.	Validated and significant
H4 - Perceptions about sustainable swimwear products influence the purchase of Portuguese sustainable swimwear products, where:	H4.1 - Uniqueness of the articles will have a positive influence in the purchasing process of Portuguese sustainable swimwear products.	Validated and significant
	H4.2 - Consumer's lack of information about the impact of the fashion industry will have a negative influence in the purchasing process of Portuguese sustainable swimwear products.	Validated and significant

4.5 - Further Results

To elaborate a profile of sustainable lifestyle, a set of Chi-Square tests was conducted between “How sustainable would you rate your lifestyle?”, measured in a five-point Likert Scale, from “Not sustainable at all” to “Extremely sustainable” (an ordinal scale variable), with the demographic variables considered. It is known already, through the analysis made before that, the behaviour towards sustainability improves the purchase intention of sustainable products,

in the sense that a more sustainable lifestyle leads to a higher willingness to buy sustainable products. The results are presented in Table 7.

From the demographic variables, nationality is not considered since most of the participants are Portuguese, only excluding three non-Portuguese participants.

Table 7: Results of Chi-Square Tests

How sustainable would you rate your lifestyle?		
	Test Statistic (p-value)	ϕ
Gender	2,054 (0,724)	0,136
Age	39,869 (<0,001)	0,599
Level of education	36,323 (0,003)	0,572
Employment	85,747 (<0,001)	0,879
Income	59,391 (<0,001)	0,731

By the residual analysis presented in Appendix 14, it can be concluded that:

- › Younger individuals (18 to 24 years old) have a slightly or moderately sustainable lifestyle, being the oldest (45 to 54 years old) the ones who present a very sustainable lifestyle, and the ages from 35 to 44 years old who have an extremely sustainable type of life. This is an interesting conclusion as the youngest are the ones who should be very interested in preserving the environment by having a more sustainable lifestyle.
- › Those with less educational levels (High school or Undergraduate Degree) perform a slightly or moderately sustainable lifestyle, the Graduates being the ones who have a very sustainable lifestyle.
- › While the unemployed do not have a sustainable lifestyle at all, the part-time employed have a slightly sustainable lifestyle. The students perform a moderately sustainable lifestyle and the full-time employed, a very sustainable lifestyle.
- › No incomes or low-level incomes do not have a sustainable lifestyle at all or have a slightly or moderated lifestyle. Higher incomes present a very sustainable lifestyle.

The most important factor to define the lifestyle type is employment ($\phi = 0,879$), consequently followed by monthly income ($\phi = 0,731$), being those who are not employed or have part-time

jobs the ones with less sustainable lifestyles. Age is also an important factor ($\phi = 0,599$), and unexpectedly the middle-aged people (35 to 44 years old) are the ones who present a more sustainable lifestyle. The educational level is also important to define lifestyle ($\phi = 0,572$), with higher levels of education performing more sustainable lifestyles.

5. Conclusions

The current chapter emphasizes the conclusions of the present study, while reviewing the research that has been conducted, connecting the results to the literature. Afterwards, several limitations identified within this study will be presented, and recommendations for mitigating them in future research are also offered.

5.1 - Main Findings and Management Implications

After all the research developed for the writing of this dissertation, the growing concern shown by both consumers and organizations, for the development of a greener and environmentally friendly society was clear. Thus, all the evolution in the creation of new materials and production processes that lead to the development of sustainable products and services is notorious. Such methods and materials are no exception, and the truth is that in Portugal there are already countless brands that support Econyl, organic cotton, and ethical, sustainable, and transparent creation processes.

However, if on the side of brands, the efforts to achieve this goal are already evident, on the side of consumers it sometimes becomes difficult. The truth is that there is still a large group of people who are skeptical of this whole "new world" based on sustainability and on a more conscious consumption.

Hence, the main objective of this dissertation was to examine the primary perceptions and main drivers that lead consumers to opt for Portuguese sustainable swimwear brands. In addition to this, it was also intended to analyse and get a better grasp on the profile of this type of consumer. Thus, four research questions were developed that attempted to identify the main characteristics of a consumer who buys Portuguese sustainable swimwear products; to assess the importance and influence of sustainability in the consumer's daily life and purchasing decisions of Portuguese sustainable swimwear products; to identify the main drivers and motivations that affect the intentions consumers have for Portuguese sustainable swimwear products, and finally to identify the main barriers that consumers face and that avert them from buying Portuguese sustainable swimwear products.

Considering the main ideas presented above, and as a way to answer the proposed research questions, after an analysis of the existing literature on topics related to sustainability, the fashion industry and the main factors that influence the decision-making process of consumers,

ten hypothesis were proposed for the analysis of the main variables that influence consumers' choices of more sustainable and environmentally friendly options.

Through the development of in-depth interviews and an online survey it was possible to verify whether the collected data confirmed the hypothesis related to the perceptions and main drivers that influenced all the variables on consumer's intentions to purchase Portuguese sustainable swimwear articles. This analysis also made it possible to discover which factors are most important and which have the greatest influence when making the final decision.

That said, it is possible to highlight the following notes:

› ***What Impacts the Most Purchase Intentions Towards Portuguese Sustainable Swimwear?***

Through the statistical analysis made in the previous chapter, psychographic factors are those that have the greatest impact on consumers' purchase intentions. This involves knowledge of environmental status, behaviours towards a sustainable lifestyle, and attitudes of each individual about sustainability (Fraj & Martinez, 2006; Kim & Damhorst, 1998). However, these factors are extremely affected by the level of education, which usually leads to a variety of different values regarding monthly income (Straughan & Roberts, 1999). Obviously, higher education levels are more informed of ecological problems, especially rising from the fashion industry. Social pressure also affects behaviours, as those who feel more observed or evaluated have a higher tendency toward sustainable purchases (White et al., 2019). Yet, individuals who are frequently used to buy mass products have the propensity to purchase more sustainable products than those who buy superfluous types of products.

› ***Sustainable Lifestyle Depends on Which Factors?***

The education level is very important to define a sustainable lifestyle, with higher levels of education performing more sustainable lifestyles. According to the data obtained, usually higher levels of education have full-time jobs and higher incomes. In fact, all these three demographic factors seem to be related and may lead to a huge influence on a sustainable lifestyle.

Moreover, higher levels of education are more aware of ecological problems, as they have more access to knowledge and social media information. With this it is possible to suppose that the age group of 35 to 44 years old is the one with a more sustainable lifestyle, which usually represents the age group where people generally have more stability at their jobs and sometimes

higher incomes. The younger, frequently students or no-income individuals cannot afford a totally sustainable lifestyle.

According to the results obtained, a series of action steps, mostly directed to environmental awareness, can be adopted by brands with the aim of leading to an increase in the adoption of sustainable behaviours and routines. For the development of such action steps, the marketing area of organizations will play a key role both in the development of communication strategies and in their implementation.

Thus, the main measures I consider crucial, useful, and that go against the validated hypothesis are:

- › Brand development regarding physical stores and partnerships with concept stores where sustainable brands may be introduced to new clients. This way consumers will not only have contact with the brand through social media platforms or websites but will have the opportunity to go to a physical place where they can try the products, compare sizes, and enjoy the fabrics and materials used. In addition, and looking a little bit into the coin's reverse, sustainable brands that do not have a digital platform should invest in it, allowing customers to have the opportunity to make purchases/orders in a simple, convenient, and practical way from any part of the world (using a mobile device). Thus, through this diversification of the places where sustainable brands can be found, it will be possible not only to satisfy all those that, with the pandemic, have become an adept of online shopping, but also to satisfy those who have preference for direct contact with the people and who as such enjoy going directly to the stores and have the opinion of those who know the most about the products.

With regard to the "value" theme, the marketing team must be able to communicate the enormous environmental value that sustainably developed pieces have. In addition, brands must be able to present "programs" for the maintenance and repair of sustainable articles. Exchanging used items, as long as they are in good condition, for vouchers to spend in the store could be a way of attracting more customers and showing them the value that sustainable items can have. *(H1.2 – Motivations to buy Portuguese sustainable swimwear products are influenced by demographic and psychographic characteristics, where Value and Convenience are positively related to major intentions to purchase Portuguese sustainable swimwear products.)*

- › Creation of an ambassador program, where the ambassadors would be brand customers. Through product and brand promotion (using social media platforms and word-of-mouth), ambassadors would receive a discount to enjoy on certain items. This way, it would be possible to give "visibility" and "evaluate" the way ambassadors promote themselves, giving them the extra boost, they so much appreciate and value, while extending social media reach beyond traditional influencer programs. Through the ambassadors, it would be possible to provide consumers with authentic content about the various positive points of sustainable brands. *(H3.1 - Consumers who feel observed and evaluated have higher intentions/motivations to purchase Portuguese sustainable swimwear products.)*
- › In addition to the development of products considered by many to be superfluous (swimwear articles), brands must use surplus fabrics to create mass products for daily use and considered essential. This way, it would be possible to encourage conscious consumption, selling essential products (example: reusable makeup removal discs; socks; underwear) at lower prices and similar to the prices presented for the same type of products produced in a non-sustainable way. Consumers would thus be contributing to a more conscious consumption and would not immediately exclude the possibility of buying something sustainable just because the difference in prices between the product produced in a sustainable way and the product produced in an unsustainable would be insignificant. *(H2 – Mass products, where the price difference between non-sustainable formal products and sustainably produced products is lower, will create higher purchasing intentions/motivations than superfluous products, usually with higher prices, where Portuguese sustainable swimwear articles can be included.)*
- › Brands must be able to participate and create fairs and public events related to sustainability and healthy habits, using them to communicate the benefits and positive contributions of buying sustainable clothing. *(H3.2 - Attitudes about the environment influence the purchase of Portuguese sustainable swimwear products, where consumers that have a sustainable lifestyle have higher intentions/motivations to purchase Portuguese sustainable swimwear products.)*
- › Bearing in mind that the exclusivity and uniqueness presented by sustainable brands is a point that stands out, the marketing team must be able to communicate this aspect in their images, actions, and communications. Brands should also study the possibility of developing exclusive collections (limited number of pieces) alluding to certain specific times of the year (example: Carnival, Christmas, New Year's Eve, etc.). *(H4.1 -*

Perceptions about sustainable swimwear products influence the purchase of Portuguese sustainable swimwear products where Uniqueness of the articles will have a positive influence in the purchasing process of Portuguese sustainable swimwear products.)

- › In order to draw attention to the state of the environment and how quickly it is necessary to take measures to preserve it, the marketing team must be able to develop brand activation campaigns aimed at disseminating interesting and little-known facts about the fashion industry and the environment, sustainability, and individual awareness. *(H3.3 - Attitudes about the environment influence the purchase of Portuguese sustainable swimwear products, where Consumers who are knowledgeable about the environment have higher intentions/motivations to purchase Portuguese sustainable swimwear products.; H4.2 - Perceptions about sustainable swimwear products influence the purchase of Portuguese sustainable swimwear products where Consumer's lack of information about the impact of the fashion industry will have a negative influence in the purchasing process of Portuguese sustainable swimwear products.)*

To conclude, organizations and brands must be able to make certain changes to be able to convert more non-sustainable consumers into sustainable consumers. Certain consumers just need a little extra, whether it is adding more patterns, textures, or colors to products, or increasing the locations where sustainable products are available.

Through everyone's cooperation, it will then be possible to experience sustainability and conscious and environmentally friendly consumption to the fullest.

5.2 - Limitations and Further Research

Despite the good results presented in this dissertation, it is possible to highlight some limitations and topics for future research.

The first limitation has to do with the sample size from where respondents were selected by a non-probability convenience sampling technique, which may lead to biased results. These limitations of the used sample hinder the conclusions which may not be generalized for statistical reasons. Thus, and for future research to be more reliable, it is necessary to try to obtain a larger and more representative sample of the population willing to share their ideas and thoughts regarding Portuguese sustainable swimwear articles.

Another limitation of the present study is related to the lack of assessment of other factors that may influence the adoption of sustainable behaviors. Thus, in future research, it will be necessary to take this limitation into account, adding other factors such as the influence that social media platforms have on making more conscious decisions in the fashion industry and the legislation of each country.

Lastly, the study of sustainable behaviors in other types of industries other than the fashion industry would also be a good point for future research.

7. References

- Abrahamse, W., & Steg, L. (2013). Social influence approaches to encourage resource conservation: A meta-analysis. *Global Environmental Change*, 23(6), 1773–1785. <https://doi.org/10.1016/j.gloenvcha.2013.07.029>
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Arli, D., Tan, L. P., Tjiptono, F., & Yang, L. (2018). Exploring consumers' purchase intention towards green products in an emerging market: The role of consumers' perceived readiness. *International Journal of Consumer Studies*, 42(4), 389–401. <https://doi.org/10.1111/ijcs.12432>
- Belk, R. W. (n.d.). *Possessions and the Extended Self*. <https://academic.oup.com/jcr/article/15/2/139/1841428>
- Bosnjak, M., Ajzen, I., & Schmidt, P. (2020). The theory of planned behavior: Selected recent advances and applications. In *Europe's Journal of Psychology* (Vol. 16, Issue 3, pp. 352–356). PsychOpen. <https://doi.org/10.5964/ejop.v16i3.3107>
- Brewer, M. K. (2019a). Slow Fashion in a Fast Fashion World: Promoting Sustainability and Responsibility. *Laws*, 8(4), 24. <https://doi.org/10.3390/laws8040024>
- Brough, A. R., Wilkie, J. E. B., Ma, J., Isaac, M. S., & Gal, D. (2016). Is Eco-Friendly Unmanly? The Green-Feminine Stereotype and Its Effect on Sustainable Consumption. *Journal of Consumer Research*, 43(4), 567–582. <https://doi.org/10.1093/jcr/ucw044>
- Butler, S. M., & Francis, S. (1997). The Effects of Environmental Attitudes on Apparel Purchasing Behavior. *Clothing and Textiles Research Journal*, 15(2), 76–85. <https://doi.org/10.1177/0887302X9701500202>
- César, H., Muchinski, T., & Vieira, S. (2015). *Fibras têxteis sustentáveis: algodão colorido e orgânico, fibras de bambu, soja e milho Fibre sustainable: colorful cotton and organic, bamboo fiber, soy and corn* (Vol. 5, Issue 1). Centro Universitário Senac. <http://www1.sp.senac.br/hotsites/blogs/revistainiciacao/>
- Cheung, M. F. Y., & To, W. M. (2019). An extended model of value-attitude-behavior to explain Chinese consumers' green purchase behavior. *Journal of Retailing and Consumer Services*, 50, 145–153. <https://doi.org/10.1016/j.jretconser.2019.04.006>

- Claxton, S., & Kent, A. (2020). The management of sustainable fashion design strategies: An analysis of the designer's role. *Journal of Cleaner Production*, 268. <https://doi.org/10.1016/j.jclepro.2020.122112>
- Conca, J. (2015). *Making Climate Change Fashionable - The Garment Industry Takes On Global Warming*.
- Djelic, M. L., & Ainamo, A. (1999). The Coevolution of New Organizational Forms in the Fashion Industry: A Historical and Comparative Study of France, Italy, and the United States. *Organization Science*, 10(5), 622–637. <https://doi.org/10.1287/orsc.10.5.622>
- D'Souza, C., Taghian, M., & Lamb, P. (2006). An empirical study on the influence of environmental labels on consumers. *Corporate Communications*, 11(2), 162–173. <https://doi.org/10.1108/13563280610661697>
- Eze, U. C., & Ndubisi, N. O. (2013). Green Buyer Behavior: Evidence from Asia Consumers. *Journal of Asian and African Studies*, 48(4), 413–426. <https://doi.org/10.1177/0021909613493602>
- Field, A. (2013). Discovering statistics using IBM SPSS statistics. In *Statistics* (Vol. 58).
- Fornara, F., Carrus, G., Passafaro, P., & Bonnes, M. (2011). Distinguishing the sources of normative influence on proenvironmental behaviors: The role of local norms in household waste recycling. *Group Processes and Intergroup Relations*, 14(5), 623–635. <https://doi.org/10.1177/1368430211408149>
- Fraj, E., & Martinez, E. (2006). Environmental values and lifestyles as determining factors of ecological consumer behaviour: An empirical analysis. *Journal of Consumer Marketing*, 23(3), 133–144. <https://doi.org/10.1108/07363760610663295>
- Fu, W., & Kim, Y. K. (2019). Eco-Fashion Consumption: Cognitive-Experiential Self-Theory. *Family and Consumer Sciences Research Journal*, 47(3), 220–236. <https://doi.org/10.1111/fcsr.12296>
- Gabrielli, V., Baghi, I., & Codeluppi, V. (2013). Consumption practices of fast fashion products: A consumer-based approach. *Journal of Fashion Marketing and Management*, 17(2), 206–224. <https://doi.org/10.1108/JFMM-10-2011-0076>
- Garbie, I. H. (2015). Sustainability awareness in industrial organizations. *Procedia CIRP*, 26, 64–69. <https://doi.org/10.1016/j.procir.2015.03.003>

- Geissdoerfer, M., Savaget, P., Bocken, N. M. P., & Hultink, E. J. (2017). The Circular Economy – A new sustainability paradigm? In *Journal of Cleaner Production* (Vol. 143, pp. 757–768). Elsevier Ltd. <https://doi.org/10.1016/j.jclepro.2016.12.048>
- George, D., & Paul Mallery, with. (n.d.). *SPSS for Windows Step by Step A Simple Guide and Reference Fourth Edition (11.0 update) Answers to Selected Exercises*.
- Graebner, M. E., Martin, J. A., & Roundy, P. T. (2012). Qualitative data: Cooking without a recipe. *Strategic Organization*, 10(3), 276–284. <https://doi.org/10.1177/1476127012452821>
- Green, T., & Peloza, J. (2014). Finding the right shade of green: The effect of advertising appeal type on environmentally friendly consumption. *Journal of Advertising*, 43(2), 128–141. <https://doi.org/10.1080/00913367.2013.834805>
- Jang, Y. J., & Zheng, T. (2020). Assessment of the environmental sustainability of restaurants in the U.S.: The effects of restaurant characteristics on environmental sustainability performance. *Journal of Foodservice Business Research*, 23(2), 133–148. <https://doi.org/10.1080/15378020.2019.1691416>
- Joshi, Y., & Rahman, Z. (2015). Factors Affecting Green Purchase Behaviour and Future Research Directions. *International Strategic Management Review*, 3(1–2), 128–143. <https://doi.org/10.1016/j.ism.2015.04.001>
- Kim, H.-S., & Damhorst, M. L. (1998). Environmental Concern and Apparel Consumption. *Clothing and Textiles Research Journal*, 16(3), 126–133. <https://doi.org/10.1177/0887302X9801600303>
- Legere, A., & Kang, J. (2020). The role of self-concept in shaping sustainable consumption: A model of slow fashion. *Journal of Cleaner Production*, 258. <https://doi.org/10.1016/j.jclepro.2020.120699>
- Mainieri, T., Barnett, E. G., Valdero, T. R., Unipan, J. B., & Oskamp, S. (1997). Green Buying: The Influence of Environmental Concern on Consumer Behavior. *The Journal of Social Psychology*, 137(2), 189–204. <https://doi.org/10.1080/00224549709595430>
- Mcneill, L., & Moore, R. (2015). Sustainable fashion consumption and the fast fashion conundrum: Fashionable consumers and attitudes to sustainability in clothing choice. *International Journal of Consumer Studies*, 39(3), 212–222. <https://doi.org/10.1111/ijcs.12169>

- Mohd Suki, N., & Mohd Suki, N. (2015). Consumption values and consumer environmental concern regarding green products. *International Journal of Sustainable Development & World Ecology*, 22(3), 269–278. <https://doi.org/10.1080/13504509.2015.1013074>
- Morgan, L. R., & Birtwistle, G. (2009). An investigation of young fashion consumers' disposal habits. *International Journal of Consumer Studies*, 33(2), 190–198. <https://doi.org/10.1111/j.1470-6431.2009.00756.x>
- Niinimäki, K. (2010). Eco-Clothing, consumer identity and ideology. *Sustainable Development*, 18(3), 150–162. <https://doi.org/10.1002/sd.455>
- Ozdamar Ertekin, Z., & Atik, D. (2015). Sustainable Markets. *Journal of Macromarketing*, 35(1), 53–69. <https://doi.org/10.1177/0276146714535932>
- Pal, R., & Gander, J. (2018). Modelling environmental value: An examination of sustainable business models within the fashion industry. *Journal of Cleaner Production*, 184, 251–263. <https://doi.org/10.1016/j.jclepro.2018.02.001>
- Park, H. J., & Lin, L. M. (2020). Exploring attitude–behavior gap in sustainable consumption: comparison of recycled and upcycled fashion products. *Journal of Business Research*, 117, 623–628. <https://doi.org/10.1016/j.jbusres.2018.08.025>
- Polit, D. F., & Beck, C. T. (2010). Generalization in quantitative and qualitative research: Myths and strategies. *International Journal of Nursing Studies*, 47(11), 1451–1458. <https://doi.org/10.1016/j.ijnurstu.2010.06.004>
- Ramayah, T., Lee, J. W. C., & Mohamad, O. (2010). Green product purchase intention: Some insights from a developing country. *Resources, Conservation and Recycling*, 54(12), 1419–1427. <https://doi.org/10.1016/j.resconrec.2010.06.007>
- Report of the World Commission on Environment and Development.* (1987).
- Shi, J., & Jiang, Z. (2022). Willingness to pay a premium price for green products: does a reference group matter? *Environment, Development and Sustainability*. <https://doi.org/10.1007/s10668-022-02419-y>
- Siddique, Md. Z. R., & Hossain, A. (2018). Sources of Consumers Awareness toward Green Products and Its Impact on Purchasing Decision in Bangladesh. *Journal of Sustainable Development*, 11(3), 9. <https://doi.org/10.5539/jsd.v11n3p9>

- Straughan, R. D., & Roberts, J. A. (1999). Environmental segmentation alternatives: a look at green consumer behavior in the new millennium. *Journal of Consumer Marketing*, 16(6), 558–575. <https://doi.org/10.1108/07363769910297506>
- Turker, D., & Altuntas, C. (2014). Sustainable supply chain management in the fast fashion industry: An analysis of corporate reports. *European Management Journal*, 32(5), 837–849. <https://doi.org/10.1016/j.emj.2014.02.001>
- White, K., Habib, R., & Hardisty, D. J. (2019). How to SHIFT consumer behaviors to be more sustainable: A literature review and guiding framework. *Journal of Marketing*, 83(3), 22–49. <https://doi.org/10.1177/0022242919825649>
- White, K., Simpson, B., Argo, J., Dahl, D. W., Dunn, L., Hoegg, J., & Peloza, J. (2013). When Do (and Don't) Normative Appeals Influence Sustainable Consumer Behaviors? *Journal of Marketing*, 77, 78–95.

8. Appendix

Appendix 1 - In-Depth Interviews Guideline

Hello, I'm Constança Machado, and I'm currently developing my dissertation to complete my master's degree in Management with Specialization in Strategic Marketing at Católica Lisbon School of Business and Economics. My dissertation aims to study the key intentions and drivers that lead consumers to buy Portuguese sustainable swimwear products.

The following interview is one of the investigation instruments used in the dissertation, and I would kindly ask you to answer the questions made. There are no right or wrong answers, and your identity will not be disclosed. Thank you very much!

Name:

Age:

Gender:

Level of Education:

Users:

1. What does sustainable consumption mean to you and does this notion play a significant role in your daily life?
2. Do you consider yourself a person who practices a sustainable lifestyle? How long have you been adopting this position? In which ways?
3. Is sustainability in the fashion industry a pertinent aspect in your everyday purchasing choices? Why? Why not? What about the purchase of simpler products, do you have the same kind of concerns?
4. Overall, do you think it is easier for you to behave sustainable and opt for sustainable products when it comes to simpler and not superfluous products instead of clothing and swimwear clothing shopping?
5. Have you ever bought Portuguese sustainable swimwear?
6. Do you know any Portuguese sustainable swimwear brands?
7. Which are the main features you look for when you purchase Portuguese sustainable swimwear articles?

8. Which are the main drivers that lead you to opt for Portuguese sustainable swimwear articles?
9. In which way do you consider that Portuguese sustainable swimwear articles provide environmental or consumer benefits? Which are the primary ones?

Non-Users:

1. What does sustainable consumption mean to you, and does this notion play a significant role in your daily life?
2. Do you consider yourself a person who practices a sustainable lifestyle? How long have you been adopting this position? In which ways?
3. Is sustainability in the fashion industry a pertinent aspect in your everyday purchasing choices? Why? Why not? What about the purchase of simpler products, do you have the same kind of concerns?
4. Overall, do you think it is easier for you to behave sustainable and opt for sustainable products when it comes to simpler and not superfluous products instead of clothing and swimwear clothing shopping?
5. Have you ever bought Portuguese sustainable swimwear?
6. Which are the main barriers that avert you from buying Portuguese sustainable swimwear articles?
7. What could make you act differently, that is, what is the biggest change you consider brands could adopt to convert more people to buy sustainable articles and more specifically, Portuguese sustainable swimwear articles?
8. How do you believe consumers may impact the fashion industry's attempts to become more ecologically conscious?

Appendix 2 - Online Survey

Dear participant,

The following survey is part of the research instruments used for my dissertation, held at Católica Lisbon School of Business and Economics. The survey is intended to study the profile of consumers of Portuguese sustainable swimwear brands as well as the main intentions and drivers that lead consumers to buy Portuguese sustainable swimwear articles.

I would like to ensure that all the data collected in this survey is completely anonymous and confidential. Participation in the survey is totally voluntary so I ask you to respond sincerely to all questions. There are no right or wrong answers, and the response time is about 5 minutes.

Thank you in advance for your cooperation,

Constança Machado.

Section 1.

1. Have you ever heard about sustainable swimwear?

- Yes
- No

2. Have you ever bought Portuguese sustainable swimwear articles?

- Yes
- No

3. Do you know any Portuguese sustainable swimwear brands?

- Yes. Which ones?
- No

Section 2.

Nowadays with the growing concern for the state of the environment, there are already many efforts being made by certain organizations to make it possible to create a more humanitarian society concerned with the well-being of others and the planet. Such efforts lead to the emergence of new ways of thinking and developing products where ecological fabrics (natural, organic, or recycled fibers) and recycling and upcycling procedures are the key point.

4. The following set of questions is designed to measure your ideas, attitudes, and values regarding the environment. Using a scale from 1 to 5, where 1 = Strongly disagree and 5 = Strongly agree, indicate the extent to which you agree/disagree with the following statements:

- I'm concerned with the environment and environmental issues.
- Humans have the right to alter the natural environment in accordance to their requirements and to suit their needs.
- I feel responsible to contribute to the preservation of the environment for future generations.
- I believe that my actions have environmental consequences.
- I believe the sustainable articles I purchase have environmental impact.
- I believe that my use of eco-friendly products will aid in the decrease of pollution and the improvement of the environment.
- I admire people who use environmentally friendly products.
- I'm pleased if others notice that I use sustainable products.

Section 3.

5. The following set of questions is designed to measure your environmental knowledge. Using a scale from 1 to 5, where 1 = Strongly disagree and 5 = Strongly agree, indicate the extent to which you agree/disagree with the following statements:

- Sustainable items must be utilized in order to lessen environmental effect and pollution.
- Utilizing sustainable products is an alternate means of conserving natural resources.
- Earth's natural resources are abundant if humans learn how to properly utilize them properly.
- The equilibrium of nature can withstand the effects of modern industrial nations.
- If current trends continue, we will soon witness a catastrophic ecological disaster.
- The damage that the textile and apparel industries cause to the planet is not lost on me.
- I am always eager to learn more about the companies and processes involved in the production of the goods I buy.

Section 4.

The following questions are designed to measure your type of lifestyle.

6. On a scale from 1 to 5, where 1= Not sustainable at all and 5= Extremely sustainable, how sustainable would you rate your lifestyle?
7. Do you currently think about how to live a more sustainable or conscious lifestyle?
(Question 7 only valid for those who answer “Not Sustainable at All” in question 6.)
- Yes, and I feel like I’m making progress.
 - Yes, but I'm at a loss as to how to begin.
 - No, that’s not my thing.
8. Which type of mass products (goods produced on a larger scale for a significant number of end consumers) do you usually buy?
- Food products
 - Clothes
 - Other:
9. When purchasing mass products, are you used to purchase sustainable products?
- Yes. Which type of products?
 - No
10. How much would you be willing to expend to buy sustainable mass products?
- < 10 €
 - 11 € - 20 €
 - 21 € - 40 €
 - > 40 €
11. When thinking about mass products, what is the price increase, in %, which you would be willing to pay for sustainable products compared with non-sustainable products?
- 0% - 15%
 - 16% - 30%
 - < 30%
12. Using a scale from 1 to 5, where 1 = Strongly disagree and 5 = Strongly agree, indicate the extent to which you agree/disagree with the following statements:

- Ecological factors have influenced my decision making.
- When possible, I prefer to purchase recycled or pre-owned items.
- While going about my regular life, I do my best to limit my use of plastic and other potentially harmful substances.
- When I can choose between two identical products, I always select the one that is least detrimental to the environment.
- It is important to me to make purchases that don't negatively impact future generations or the planet.
- It goes without saying that I will not buy a product if I can see that it has a negative impact on the environment.

Section 5.

13. The following set of questions is designed to measure your perceptions and purchasing intentions towards Portuguese sustainable swimwear articles. Using a scale from 1 to 5, where 1 = Strongly disagree and 5 = Strongly agree, indicate the extent to which you agree/disagree with the following statements:

- There is little information about where I may get Portuguese swimwear articles made from sustainable materials.
- There is limited information on how Portuguese sustainable swimwear articles are manufactured.
- The availability of eco-friendly swimwear is limited.
- More Portuguese eco-friendly beachwear brands are sorely missed.
- A quick look at the sustainable swimwear available in Portugal reveals a lack of stylistic variety.
- I believe the price of Portuguese sustainable swimwear articles is reasonable.

14. How likely are you to purchase a Portuguese sustainable swimwear article? (0-100)

15. What would make you choose a Portuguese sustainable swimwear article instead of a normal swimwear article?

- It is more sustainable.
- Curiosity.
- Looks good and trendy.

- Helps to reduce environmental effects.
- It shows that I care for the environment, and I can influence others to do the same.
- Other:

16. Using a scale from 1 to 5, where 1= Strongly disagree and 5 = Strongly agree, how much do you agree with the following statement: “A Portuguese brand that introduces into its catalogue a product line with sustainable materials and production processes...”

- Is sustainable
- Is young
- Has character
- Is original
- Sets new trends
- Follows other brands
- Has high quality
- Is old-fashioned
- Is reliable

17. What color is the sky? Please answer green.

- Purple
- Blue
- Yellow
- Green
- Orange

18. Using a scale from 1 to 5, where 1= Not important at all and 5= Extremely important, please indicate how important the following attributes are for you when buying sustainable products.

- Quality
- Design
- Price
- Sustainability
- Product range

- Store
- Overall brand image
- Innovation
- Other:

19. What do you personally see as the biggest barrier to reach a more sustainable and conscious lifestyle?

- Lack of knowledge: “I simply do not know what is important and possible.”
- Time issue: “I don’t have enough time.”
- No help: “I have clear guidance. I need more help.”
- No starting point: “I have no idea where to begin.”
- Lack of reliable criteria: “There are no uniform standards to guide me in assessing the alternatives.”
- Information overload: “I feel overwhelmed and lost by the multitude of offers.”
- Other:

Section 6: Demographic Questions

20. What is your age?

- < 18 years
- 18 - 24 years
- 25 - 34 years
- 35 - 44 years
- 45 - 54 years
- > 65 years

21. What is your gender?

- Female
- Male
- Non-binary / Third gender
- Prefer not to say

22. What is your nationality?

- Portuguese

- German
- Swiss
- Austrian
- Spanish
- Italian
- French
- British
- Dutch
- Other:

23. What is your highest educational qualification?

- I didn't finish high school
- High school
- Undergraduate Degree
- Graduate Degree
- Post-Graduate Degree
- Other:

24. What is your current employment status?

- Student
- Full-time employee
- Self-employed
- Unemployed
- Part-time employed
- Retired

25. What is your individual monthly net income?

- Under 500€
- 500€ – 1000€
- 1001€ -1500€
- 1501€ – 2000€
- 2001€ – 2500€
- 2501€ – 3000€

- Above 3000 €
- No income
- Don't know/Prefer not to say

Appendix 3 - Manipulation Check

What colour is the sky?		
Frequencies		
Green	111	96,5%
Blue	4	3,5%
Total	115	100,0

Appendix 4 - Sample Characterization

Frequencies		
Age (Ordinal variable)		
18 – 24	25	22,6%
25 – 34	47	42,3%
35 – 44	22	19,8%
45 – 54	17	15,3%
Gender (Binary variable)		
Female	71	64,0%
Male	40	36,0%
Nationality (Nominal variable)		
Portuguese	108	97,3%
German	1	0,9%
Brazilian	2	1,8%
Education Level (Ordinal variable)		
High school	3	2,7%
Undergraduate degree	8	7,2%
Graduate degree	91	82,0%
Post-Graduate degree	6	5,4%
Master's degree	3	2,7%
Current Employment Status (Nominal variable)		
Student	12	10,8%
Full-time employee	95	85,6%
Self-employed	1	0,9%
Unemployed	1	0,9%
Part-time employed	1	0,9%
Retired	1	0,9%
Monthly Income (Ordinal variable)		
No income	3	3,7%
Under 500€	4	5,1%
501€ - 1000€	10	12,7%
1001€ - 1500€	14	17,7%
2001€ - 2500€	38	48,1%
2501€ - 3000€	10	12,7%
Missing answers	32	
Monthly Income, after missing values treatment (Ordinal variable)		
No income	3	2,7%
Under 500€	4	3,6%
501€ - 1000€	10	9,0%
1001€ - 1500€	22	19,8%
1501€ - 2000€	8	7,2%
2001€ - 2500€	51	46,0%
2501€ - 3000€	13	11,7%
Have you ever heard about sustainable swimwear? (Binary variable)		
Yes	100	90,1%

No	11	9,9%
Have you ever bought Portuguese sustainable swimwear articles? (Binary variable)		
Yes	73	65,8%
No	38	34,2%
Do you know any Portuguese sustainable swimwear brands? (Binary variable)		
Yes	91	82,0%
No	20	18,0%

Appendix 5 - Reliability Analysis

Environmental Ideas, Attitudes, and Values (EIAV)	
Cronbach's Alpha	N of Items
,830	8

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Cronbach's Alpha if Item Deleted
I'm concerned with the environment and environmental issues.	29,84	6,246	,511	,586
Humans have the right to alter the natural environment in accordance with their requirements and to suit their needs.	33,03	8,772	-,375	,864
I feel responsible to contribute to the preservation of the environment for future generations.	29,81	5,700	,591	,553
I believe that my actions have environmental consequences.	29,72	6,603	,494	,603
I believe the sustainable articles I purchase have environmental impact.	29,86	5,572	,683	,534
I believe that my use of eco-friendly products will aid in the decrease of pollution and the improvement of the environment.	29,88	5,086	,685	,509
I admire people who use environmentally friendly products.	29,99	5,864	,491	,575
I'm pleased if others notice that I use sustainable products.	30,22	4,735	,621	,512

Environmental Knowledge (EK)	
Cronbach's Alpha	N of Items
,786	7

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I'm concerned with the environment and environmental issues.	32,65	10,285	,564	,814
Humans don't have the right to alter the natural environment in accordance with their requirements and to suit their needs.	33,03	8,772	,375	,864
I feel responsible to contribute to the preservation of the environment for future generations.	32,62	9,601	,632	,802
I believe that my actions have environmental consequences.	32,53	10,833	,511	,823
I believe the sustainable articles I purchase have environmental impact.	32,68	9,167	,818	,782
I believe that my use of eco-friendly products will aid in the decrease of pollution and the improvement of the environment.	32,69	8,687	,757	,781
I admire people who use environmentally friendly products.	32,80	9,869	,516	,815
I'm pleased if others notice that I use sustainable products.	33,03	8,372	,653	,796

Type of Lifestyle (TL)	
Cronbach's Alpha	N of Items
,923	6

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Ecological factors have influenced my decision making.	23,51	8,488	,878	,896
When possible, I prefer to purchase recycled or pre-owned items.	23,49	8,888	,816	,905
While going about my regular life, I do my best to limit my use of plastic and other potentially harmful substances.	23,49	8,870	,751	,912
When I can choose between two identical products, I always select the one that is least detrimental to the environment.	23,52	8,906	,703	,918
It is important to me to make purchases that don't negatively impact future generations or the planet.	23,44	9,049	,855	,903
It goes without saying that I will not buy a product if I can see that it has a negative impact on the environment.	23,68	7,239	,796	,918

Perceptions Towards Portuguese Sustainable Swimwear (PP)	
Cronbach's Alpha	N of Items
,750	6

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
There is little information about where I may get Portuguese swimwear articles made from sustainable materials.	16,46	7,523	,526	,206
There is limited information on how Portuguese sustainable swimwear articles are manufactured.	16,49	7,579	,565	,187
The availability of eco-friendly swimwear is limited.	16,58	7,992	,372	,317
More Portuguese eco-friendly beachwear brands are sorely missed.	15,30	13,102	-,112	,539
A quick look at the sustainable swimwear available in Portugal reveals a lack of stylistic variety.	17,95	9,252	,344	,350
I believe the price of Portuguese sustainable swimwear articles is reasonable.	15,61	14,803	-,376	,635

Values for buying Portuguese swimwear (VP)	
Cronbach's Alpha	N of Items
,851	9

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
A Portuguese brand that introduces into its catalogue a product line with sustainable materials and production processes is sustainable.	29,52	15,562	,711	,742
A Portuguese brand that introduces into its catalogue a product line with sustainable materials and production processes is young.	29,48	14,662	,905	,713
A Portuguese brand that introduces into its catalogue a product line with sustainable materials and production processes has character.	29,33	15,433	,746	,737
A Portuguese brand that introduces into its catalogue a product line with sustainable materials and production processes is original.	29,52	15,462	,621	,754
A Portuguese brand that introduces into its catalogue a product line with sustainable materials and production processes sets new trends.	29,38	16,648	,564	,764

A Portuguese brand that introduces into its catalogue a product line with sustainable materials and production processes follows other brands.	30,10	22,590	-,265	,867
A Portuguese brand that introduces into its catalogue a product line with sustainable materials and production processes is trendy.	29,62	17,648	,433	,781
A Portuguese brand that introduces into its catalogue a product line with sustainable materials and production processes has high quality.	30,95	20,148	,091	,817
A Portuguese brand that introduces into its catalogue a product line with sustainable materials and production processes is old-fashioned.	29,90	16,190	,735	,744

Value for Buying Sustainable Products (VS)	
Cronbach's Alpha	N of Items
,730	8

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
How important the following attributes are for you when buying sustainable products – Quality	29,19	7,640	,508	,639
How important the following attributes are for you when buying sustainable products - Design	29,82	7,101	,311	,656
How important the following attributes are for you when buying sustainable products - Price	30,32	8,544	-,121	,778
How important the following attributes are for you when buying sustainable products - Sustainability	29,38	6,866	,458	,623
How important the following attributes are for you when buying sustainable products - Product Range	30,01	6,619	,484	,614
How important the following attributes are for you when buying sustainable products - Store	30,57	6,534	,495	,610
How important the following attributes are for you when buying sustainable products - Overall Brand Image	29,89	5,892	,573	,582
How important the following attributes are for you when buying sustainable products - Innovation	29,49	6,309	,545	,596

Appendix 6 - Chi-Square Tests

How likely are you to purchase a Portuguese sustainable swimwear * Gender					
			Gender		Total
			Male	Female	
Purchase Intention:	Very unlikely	Count	3	6	9
		% of total	2,7%	5,4%	8,1%
		Adjusted Residual	-,2	,2	
	Moderately likely	Count	22	39	61
		% of total	19,8%	35,1%	55,0%
		Adjusted Residual	,0	,0	
	Extremely likely	Count	15	26	41
		% of total	13,5%	23,4%	36,9%
		Adjusted Residual	,1	-,1	
Total		Count	40	71	111
		% of total	36,0%	64,0%	100,0%

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	0,034	2	0,983
Phi	0,017		0,983

How likely are you to purchase a Portuguese sustainable swimwear * Monthly Income										
			Monthly Income (without missing data)						Total	
			No income	Under 500€	501€ - 1000€	1001€ - 1500€	1501€ - 2000€	2001€ - 2500€		2501€ - 3000€
Purchase Intention:	Very unlikely	Count	2	0	3	3	0	0	1	9
		Adjusted Residual	3,8	-,6	2,7	1,1	-,9	-,2,9	-,1	
	Moderately likely	Count	0	4	5	16	6	25	5	61
		Adjusted Residual	-1,9	1,8	-,3	1,9	1,2	-1,2	-1,3	
	Extremely likely	Count	1	0	2	3	2	26	7	41
		Adjusted Residual	-,1	-1,6	-1,2	-2,5	-,7	2,8	1,3	
Total		Count	3	4	10	22	8	51	13	111

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	40,065	10	<0,001
Phi	0,601		<0,001

Appendix 7 - Factor Analysis

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0,901
Bartlett's Test of Sphericity	Approx. Chi-Square	586,612
	df	15
	Sig.	,000

Communalities		
	Initial	Extraction
Environmental Ideas, Attitudes, and Values (EIAV)	1,000	0,763
Environmental Knowledge (EK)	1,000	0,872
Type of Lifestyle (TL)	1,000	0,878
Perceptions Towards Portuguese Sustainable Swimwear (PP)	1,000	0,995
Value for Buying Portuguese Swimwear (VP)	1,000	0,840
Value for Buying Sustainable Products (VS)	1,000	0,757

Extraction Method: Principal Component Analysis.

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4,562	76,025	76,025	4,562	76,025	76,025	3,710	61,840	61,840
2	,543	9,043	85,068	,543	9,043	85,068	1,394	23,228	85,068
3	,346	5,767	90,835						
4	,284	4,727	95,562						
5	,154	2,574	98,136						
6	,112	1,864	100,000						

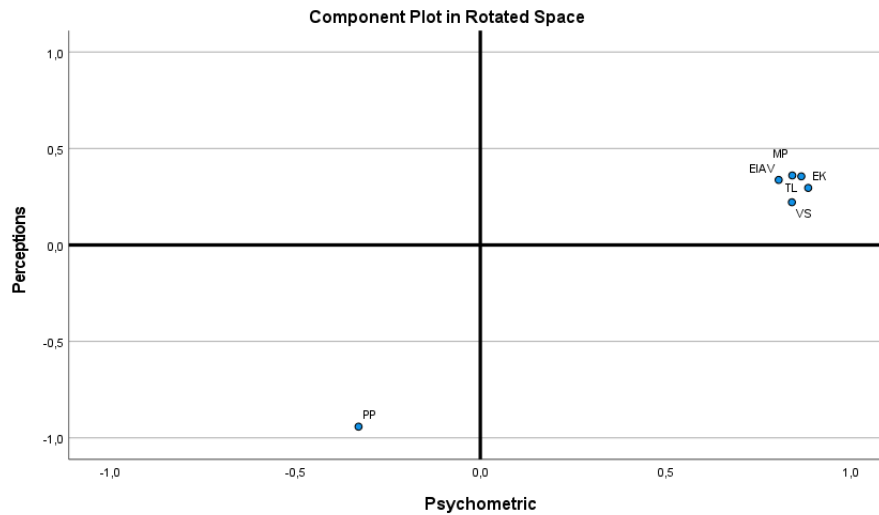
Extraction Method: Principal Component Analysis.

Rotated Component Matrix ^a		
	Component	
	Psychographic	Perceptions
Environmental Knowledge (EK)	0,885	
Type of Lifestyle (TL)	0,867	
Value for Buying Sustainable Products (VS)	0,842	
Value for Buying Portuguese Swimwear (VP)	0,841	
Environmental Ideas, Attitudes, and Values (EIAV)	0,806	
Perceptions Towards Portuguese Sustainable Swimwear (PP)		-0,942

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.



Appendix 8 - Estimated Regression Model

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,755 ^a	,570	,541	11,710	1,959

a. Predictors: (Constant), Income, Gender, Psychographic, Employment, Age, Perceptions, Education

b. Dependent Variable: How likely are you to purchase a Portuguese sustainable swimwear article? (0- 100)

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18720,223	7	2674,318	19,503	,000 ^b
	Residual	14123,452	103	137,121		
	Total	32843,676	110			

a. Dependent Variable: How likely are you to purchase a Portuguese sustainable swimwear article? (0- 100)

b. Predictors: (Constant), Income, Gender, Psychographic, Employment, Age, Perceptions, Education

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	85,193	4,616		18,456	0,000		
	Psychographic	10,477	1,328	0,606	7,892	0,000	0,707	1,414
	Perceptions	6,560	1,439	0,380	4,559	0,000	0,602	1,661
	Gender	1,976	2,396	0,055	,825	0,411	0,933	1,071
	AgeD	2,595	2,885	0,072	,899	0,371	0,651	1,536
	EducD	1,417	4,870	0,025	,291	0,772	0,583	1,714
	EmpD	-15,005	4,385	-0,290	-3,422	0,001	0,583	1,715
	IncD	5,795	4,096	0,139	1,415	0,160	0,434	2,305

a. Dependent Variable: How likely are you to purchase a Portuguese sustainable swimwear article? (0- 100)

Appendix 9 - OLS Assumptions

One-Sample Kolmogorov-Smirnov Normal Test Summary of residuals			
Total N			111
Most Extreme Differences	Absolute		,062
	Positive		,039
	Negative		-,062
Test Statistic			,062
Asymptotic Sig. (2-sided test) ^a			,200 ^b
Monte Carlo Sig. (2-sided test) ^c	Sig.		,351
	99% Confidence Interval	Lower Bound	,339
		Upper Bound	,363

a. Lilliefors Corrected

b. This is a lower bound of the true significance.

c. Lilliefors' method based on 10000 Monte Carlo samples with starting seed 2000000.

Breusch-Pagan test ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	306700,266	2	153350,133	4,436	,014 ^b
	Residual	3733919,935	108	34573,333		
	Total	4040620,201	110			

a. Dependent Variable: res2 (squared residuals)

b. Predictors: (Constant), Income, Gender, Psychographic, Employment; Age; Perceptions, Education

Appendix 10 - Spearman's Correlation Between Items of Q16 and PI

		Sustainable	Young	Character	Original	Sets New Trends	Follows Other Brands	High Quality	Old-Fashioned
Spearman's rho	Purchase Intentions (PI)	,505***	,506***	,490***	,516***	,408***	-,446***	,074	,270***
	Sustainable		,726***	,722***	,680***	,379***	-,548***	,372*	,592***
	Young			,675***	,715***	,504***	-,395**	,173	,466***
	Has Character				,701***	,426***	-,585***	,063	,486***
	Original					,480***	-,522***	,171	,418***
	Sets New Trends						-,362**	,097	,319***
	Follows Other Brands							,156	-,603***
	High Quality								,261

(*p<0,10; **p<0,05; ***p<0,01)

Appendix 11 - Mann-Whitney U test results from comparing how much you would be willing to pay for a sustainable product comparing food to clothes.

Descriptives				
	Type of product	N	Mean	Std. Deviation
How likely are you to purchase a Portuguese sustainable swimwear article? (0- 100)	Clothes (Superfluous)	8	1,13	0,35
	Food products (Mass products)	103	1,37	0,54

Independent-Samples Mann-Whitney U Test Summary	
Total N	111
Mann-Whitney U	410,500
Wilcoxon W	5766,500
Test Statistic	410,500
Standard Error	74,160
Standardized Test Statistic	0,020
Asymptotic Sig.(2-sided test)	0,984

Appendix 12 - Mann-Whitney U test results from Purchase Intention comparison between those who buy food with those who buy clothes.

Tests of Normality							
	Type of product	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
How likely are you to purchase a Portuguese sustainable swimwear article? (0- 100)	Clothes (superfluous)	,189	8	,200*	,927	8	,490
	Food products (Mass products)	,215	103	,000	,880	103	,000

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Descriptives				
	Type of product	N	Mean	Std. Deviation
How likely are you to purchase a Portuguese sustainable swimwear article? (0- 100)	Clothes (superfluous)	8	53,50	22,85
	Food products (Mass products)	103	81,04	15,20

Independent-Samples Mann-Whitney U Test Summary	
Total N	111
Mann-Whitney U	720,000
Wilcoxon W	6076,000
Test Statistic	720,000
Standard Error	85,566
Standardized Test Statistic	3,600
Asymptotic Sig.(2-sided test)	,000

Appendix 13 - Spearman's Correlation Coefficient

Spearman's correlation		
	I admire people who use environmentally friendly products	I'm pleased if others notice that I use sustainable products
Purchase Intentions (PI)	0,291***	0,424***
I admire people who use environmentally friendly products		0,509***

(*p<0,10; **p<0,05; ***p<0,01)

Appendix 14 - Significant Chi-Square Tests

How sustainable would you rate your lifestyle? * Age							
		Age				Total	
		18 - 24 years	25 - 34 years	35 - 44 years	45 - 54 years		
How sustainable would you rate your lifestyle?	Not sustainable at all	Count	1	1	0	0	2
		Adjusted Residual	,9	,2	-,7	-,6	
	Slightly sustainable	Count	5	2	0	0	7
		Adjusted Residual	3,2	-,8	-,4	-,2	
	Moderately sustainable	Count	14	15	2	1	32
		Adjusted Residual	3,4	,6	-,3	-,3	
	Very sustainable	Count	5	26	15	13	59
		Adjusted Residual	-,8	,4	1,6	2,1	
	Extremely sustainable	Count	0	3	5	3	11
		Adjusted Residual	-,9	-,1	2,2	1,2	
Total	Count	25	47	22	17	111	

How sustainable would you rate your lifestyle? * Educational level								
		Education level					Total	
		High school	Undergraduate degree	Graduate degree	Post-Graduate degree	Master degree		
How sustainable would you rate your lifestyle?	Not sustainable at all	Count	0	0	2	0	0	2
		Adjusted Residual	-,2	-,4	,7	-,3	-,2	
	Slightly sustainable	Count	1	1	3	0	2	7
		Adjusted Residual	2,0	,7	-,8	-,7	4,4	
	Moderately sustainable	Count	2	5	22	2	1	32
		Adjusted Residual	1,5	2,2	-,3	,3	,2	
	Very sustainable	Count	0	1	55	3	0	59
		Adjusted Residual	-,9	-,4	3,3	-,2	-,9	
	Extremely sustainable	Count	0	1	9	1	0	11
		Adjusted Residual	-,6	,3	,0	,6	-,6	
Total	Count	3	8	91	6	3	111	

How sustainable would you rate your lifestyle? * Current employment Status										
		Current employment Status							Total	
			Student	FTE	SE	Unemployed	PTE	Retired		
How sustainable would you rate your lifestyle?	Not sustainable at all	Count	0	1	0	1	0	0	2	
		Adjusted Residual	-,5	-1,4	-,1	7,4	-,1	-,1		
	Slightly sustainable	Count	2	4	0	0	1	0	7	
		Adjusted Residual	1,6	-2,2	-,3	-,3	3,9	-,3		
	Moderately sustainable	Count	7	23	1	0	0	1	32	
		Adjusted Residual	2,4	-2,6	1,6	-,6	-,6	1,6		
	Very sustainable	Count	2	57	0	0	0	0	59	
		Adjusted Residual	-2,7	3,5	-1,1	-1,1	-1,1	-1,1		
	Extremely sustainable	Count	1	10	0	0	0	0	11	
		Adjusted Residual	-,2	,5	-,3	-,3	-,3	-,3		
	Total		Count	12	95	1	1	1	1	111

How sustainable would you rate your lifestyle? * Monthly income											
		Monthly income (without missing data)							Total		
			No income	Under 500€	501€ - 1000€	1001€ - 1500€	1501€ - 2000€	2001€ - 2500€	2501€ - 3000€		
How sustainable would you rate your lifestyle?	Not sustainable at all	Count	1	0	0	1	0	0	0	2	
		Adjusted Residual	4,2	-,3	-,4	1,1	-,4	-1,3	-,5		
	Slightly sustainable	Count	0	0	3	3	0	1	0	7	
		Adjusted Residual	-,5	-,5	3,2	1,6	-,8	-1,7	-1,0		
	Moderately sustainable	Count	2	3	5	9	0	10	3	32	
		Adjusted Residual	1,5	2,1	1,5	1,4	-1,9	-2,0	-,5		
	Very sustainable	Count	0	1	1	9	7	34	7	59	
		Adjusted Residual	-1,9	-1,1	-2,9	-1,3	2,0	2,6	,1		
	Extremely sustainable	Count	0	0	1	0	1	6	3	11	
		Adjusted Residual	-,6	-,7	,0	-1,7	,3	,6	1,7		
	Total		Count	3	4	10	22	8	51	13	111