MASTER
MANAGEMENT

Understanding the relationship between sustainability and purchase intention for luxury fashion brands

Maria Inês da Costa Sardo

M

2023

FACULDADE DE **ECONOMIA**

UNDERSTANDING THE RELATIONSHIP BETWEEN SUSTAINABILITY AND PURCHASE INTENTION FOR LUXURY FASHION BRANDS

Maria Inês da Costa Sardo

Dissertation

Master in Management

Supervised by
Sandrina Francisca Teixeira
José Cardoso Moreira

2023

ACKNOWLEDGMENTS

The present dissertation is a crucial step of my academic path and I am very happy to complete it. Although it was a challenging journey, I am very proud of everything I have accomplished and thankful for having the right people supporting and cheering me all the way through.

I would like to thank my supervisors, Sandrina Francisca Teixeira and José Cardoso Moreira, for all the support and guidance over the past few months. Without their help, this dissertation would not have been delivered. Working alongside them has given me great inspiration for the future and taught me to be ambitious, even when things may seem hard to accomplish.

I would also like to thank my family, in particular, to my brother, and friends for their unconditional support and words of encouragement, which were much needed during these two years. I would also like to thank my dog that always helped me to feel less stressed.

Lastly, I want to dedicate the present work to my mum and dad, who are my greatest joy in life. I would like to express my gratitude to them for their patience, all the encouragement, and for always being there for me.

ABSTRACT

The primary goal of this study is to understand the relationship between sustainability and purchase intention, in the luxury fashion industry. Sustainability has become one of the major topics in consumers' minds, hence, luxury fashion brands are affected by this trends' impact in consumer preferences.

For research purposes, both sustainable product attributes and sustainable brand activities are included in the model. A questionnaire was built based on existing studies on this subject, collecting a total of 254 valid answers. The suggested hypotheses were tested using multiple statistical techniques to assess the reliability and validity of the gathered data, followed by a multiple linear regression to obtain results.

The results obtained showed that, apart from CER, both sustainable product attributes and CSR activities have a significant influence on Purchase Intention. The presence of recycled materials in the product showed higher significance on purchase intention than the remaining hypotheses tested.

Considering that the data used for this analysis were collected exclusively in the Portuguese market, inferring the same findings in different countries should be made prudently. The study did not analyze the available income of the respondents and most were part of the generation Z, which should be kept in mind while analyzing the results.

RESUMO

O objetivo central do estudo é compreender qual a relação existente entre sustentabilidade e intenção de compra, no caso particular da indústria de moda de luxo. A sustentabilidade tornou-se um dos principais tópicos na mente dos consumidores, portanto, marcas de moda de luxo são afetadas pelo impacto destas tendências nas preferências do consumidor.

Para o estudo, tanto sustentabilidade a nível do produto, como a nível de atividades da marca, foram incluídas no modelo. Foi elaborado um questionário, com base na literatura existente sobre este tema, que obteve um total de 254 respostas válidas. As hipóteses formuladas foram testadas através de múltiplas técnicas estatísticas para avaliar a fiabilidade e validade dos dados recolhidos, e a uma regressão linear múltipla para obter resultados.

Os resultados obtidos mostraram que, com exceção de atividades de responsabilidade ambiental, tanto os atributos de produtos sustentáveis quanto as atividades de responsabilidade social têm uma influência significativa na intenção de compra. A presença de materiais reciclados no produto apresentou uma maior significância na intenção de compra do que as restantes hipóteses testadas.

Tendo em conta que os dados utilizados nesta análise foram recolhidos exclusivamente no mercado português, inferir as mesmas conclusões em diferentes países deve ser feito com ponderação. O estudo não analisou o rendimento disponível dos respondentes do questionário, e a maioria pertence à geração Z, o que deve ser considerado ao analisar os resultados.

PALAVRAS-CHAVE: Reciclagem, Sustentabilidade, Materiais sustentáveis, RSC, Responsabilidade Ambiental Empresarial, Intenção de compra

INDEX OF CONTENTS

INDEX OF FIGURES

INDEX OF TABLES

1. INTRODUCTION

For many years, luxury and sustainability were two distant concepts in the literature, as sustainability was associated with concern for the society and environment, while luxury was associated with waste and extravagance, especially when its main or only purpose was to signal wealth and affluence (Alghanim & Ndubisi, 2022). However, despite the difficulties, luxury and sustainability are two concepts that can be successfully combined if the management demonstrates an interest in all the social and environmental issues that may affect the production chain (Fiorani et al., 2022).

Sustainability's role in business models has been researched for some time, for instance, according to Turker & Altuntas (2014) research findings, due to economic, social, and environmental problems, companies focus more and more on sustainability and try to ensure the same quality and standards in working and production conditions throughout their supply chains. Incorporating sustainable practices into their current business models allows companies to be a part of the movement against issues such as climate change while creating opportunities for better and inclusive growth and pursuing sustainability.

The relevance of sustainability for fashion businesses was recently acknowledged in a survey done by McKinsey, where results showed that 16% of the respondents claimed sustainability as one of the main opportunities for fashion companies (Smith, 2022). Taking into account that the market is self-regulated by supply and demand, consumers have shown that these concerns affect their purchase intentions, by demanding more sustainable products in their production, use, and end-of-life, and valuing positively those products made from recycled and/or recyclable materials as well as those made under fair conditions (Deloitte, 2022).

For the particular case of luxury, younger affluent generations now have higher expectations that luxury brands align with values such as preserving the environment and the welfare of individuals and communities involved in the luxury business (Luxe Digital, 2023). Thus, as the fashion industry is a major contributor to problems of social and environmental sustainability (Pedersen & Andersen, 2015), it is of utmost importance that fashion companies adopt more sustainable policies.

Regarding the environmental impact of the industry, the fashion industry is estimated to be one of the most polluting in the world, which can be seen by the size of its carbon footprint. In terms of greenhouse gas (GHG) emissions, in 2020, it had been estimated to send the

same emissions to the atmosphere as the economies of France, Germany, and the United Kingdom together, accounting for 4% of the global total (Berg et al., 2020). Recent evidence shows that this number has grown to up to 8% of global carbon emissions, according to the data of the UN Environment Programme (UNEP, 2022). Concerning the carbon footprint of the industry, which is one of the main concerns, it has been estimated that the majority of the emissions (around 70%) came from upstream activities, and the remaining was associated with downstream retail operations, use, and end-of-use activities (Berg et al., 2020).

Moreover, besides GHG emissions, the impact of the fashion industry on the environment can also be observed, for instance, in the high levels of water pollution, which are manifested on several levels. As garments need different kinds of fabrics, textiles need to be dyed, and the remaining water post operations is frequently sent back to the ocean or rivers, to an extent where around 20% of all global water pollution comes from dyeing the textiles (Milton & Astoul, 2023).

In the fashion industry, fast fashion is usually more associated with pollution than luxury fashion, as it promotes a faster pace of design and production of garments, therefore contributing more to the high pollution rates (Fleischmann, 2019). Also, as fast fashion brands launch more collections, there is an incentive for consumers to keep purchasing, increasing the pace of consumption that is already 60% higher than in 2000 (Fleischmann, 2019).

On the other hand, luxury fashion brands have always been less associated with pollution as luxury is usually associated with exclusivity, and brands do not aim to have their products accessible for everyone, therefore having lower rates of production and disposal of products when compared to fast fashion (Jaswani, 2022).

Nevertheless, luxury fashion contributes to overall industry pollution as well. Due to the need of ensuring garments reflect the brands' values and exclusivity, pieces are often made from very specific materials, such as fabrics, dyes, and other production materials of the highest quality, causing high consumption levels of natural resources, for instance, water, to ensure the best possible outcome (Jaswani, 2022). In an industry where pollution is already an issue at different levels, it becomes even more essential to take part in this matter given that the global luxury apparel market was valued at approximately 71 billion U.S. dollars in 2020 and is forecasted to meet 278 billion U.S. dollars in 2031 (Statista, 2022).

Furthermore, another example of unsustainable behavior, brands in the luxury fashion industry have incinerated products that did not match selling expectations, in an effort to ensure that the market didn't become too saturated with excess goods, thereby devaluing their products and forcing them to lower their prices (Caldecott, 2022). For example, in 2018, Burberry released in its annual report that 28.6 million euros of products were sent to an incinerator during that year (McDonald, 2018). The incineration of the products caused displeasure of environmentalists, politicians and even their own shareholders (Danigelis, 2018).

Moreover, despite the previously mentioned issues, incorporating sustainability into the business model is not exclusively about environmental concerns but also social concerns. In the fashion industry, poor working conditions, unsafety, child labor, and sweatshops are frequent topics. Indeed, it has been estimated that 60% of the fashion industry workers, at a global level, are under the age of 18 (Chaudry & Christinee, 2022), and frequently under poor conditions.

Another example of the social issues regarding the fashion industry is companies taking advantage of countries with a cheaper labor force to ensure production. For instance, in Bangladesh, garment workers make on average 96 dollars per month, where the cost of living is 3-5 times this amount (Reichart et al., 2019). Even though poor working conditions in the fashion industry are often associated with fast fashion, not all luxury fashion brands have the production facilities in ateliers and fair work conditions.

As a matter of fact, recent sources showed that part of the luxury garments are produced along with fast fashion, in the same factories and under the same working conditions (Caldecott, 2022). For instance, Dior, Saint Laurent, and other luxury fashion brands were known for many years for using Indian embroiderers for their products, under unfair working conditions, such as working in a factory with caged windows, no emergency exit, no health insurance and earning very low wages (Jay, 2020).

Hence, the sustainable practices implemented so far have highlighted the extent of the fashion industry's sustainability problems, which are defined by the balanced integration of economic performance, social inclusiveness, and environmental resilience to the benefit of current and future generations (Pedersen et al., 2019).

Thus, these sustainable consumption trends, by changing the way consumers make purchase decisions, led companies to launch sustainable new products next to their conventional non-sustainable products (Olsen et al., 2014). Several brands, including luxury ones, are launching recycled and upcycled products, two typical strategies of the circular economy resulting from the increasing need to shift to a "reduce, reuse, recycle" model of production and consumption (Adıgüzel & Donato, 2021).

The industry has recognized the need to take action through several initiatives for instance, the United Nations Climate Change fashion stakeholders created a program to make sure the fashion industry is committed to the climate. This program, raised in 2018, is called the Fashion Industry Charter for Climate Action and its main goal is to guide the fashion industry to net-zero GHG emissions before 2050, contributing to the overall mission of maintaining global warming below 1.5 degrees (UNFCCC, n.d.). Also, in terms of global regulations, a green transition in the luxury industry is a process aligned both to the United Nations Sustainable Development Goals (SDGs) and the Fashion Pact signed in October 2020 by many industry players (Deloitte, 2022), therefore providing brand recognition at a global level.

There are numerous studies (Aulina & Yuliati, 2017; Chen & Chang, 2012; Chi et al., 2021; Hein, 2022) in the existing literature researching the link between sustainability and its impact on purchase intention. This topic was researched in the fashion industry, although more commonly searched in fast fashion markets instead of luxury markets. In fact, a recent systematic literature review by Athwal et al. (2019) acknowledged that only a short number of studies have explored the link between sustainability and luxury, such as for instance the one by Davies et al. (2012).

Therefore, it is essential to understand this relationship, and if social and environmental sustainability are at the same level of importance for the consumer when considering a purchase, as there has been limited research in this, regarding luxury fashion. Besides, most research on the topic studied product attributes as a whole (recycling and environment-friendly materials), and brand activities as one instead of separating the analysis by environment and social responsibility activities. Studying them separately may lead to useful insights and directions for innovation and differentiation from competitors. Thus, there still seems to exist a literature gap, namely as few of the existing models include purchase intention as a measure of consumer preference.

This study aims to contribute to fill in this gap by researching the relationship between sustainability and purchase intention, through a conceptual model that researches sustainability related both to the products composition and brand activities, and the relationship with purchase intention. As the results are from a consumer point of view, the model provides an understanding of what is most valued by consumers, delivering useful insights for managers so that business models can be altered and more adequate to the market's preferences.

The work begins with the introduction, followed by a literature review were the model hypotheses are framed and justified. Then, there is a methodology and results section, followed by a discussion of these. Lastly, there is a final section to assess the conclusions, limitations of the study, and possible future research directions.

The study was developed according to existing literature, which was used to frame the five constructs used in the model and sustain the relationships among its variables. To gather results, a survey was conducted and data was analyzed in an appropriate software, whose results were compared to the referred literature.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

The present chapter aims to provide an insightful understanding of the main concepts related to the study and provide a foundation for the model created. The first section is an overview of the concepts related to the product itself and its sustainable attributes (section 2.1), in which there are two subsections, detailing recycling and environment-friendly materials. Then, there is a section focused on the brands' actions (section 2.2), in particular CER and CSR activities. Afterward, there is a section to provide a better understanding of brand positioning and purchase intention (section 2.3.). Hence, all five constructs of the model presented in the next chapter are addressed. Lastly, there is a section in which expected results are discussed (section 2.4.).

2.1. Making eco-friendly products

According to a study performed by Deloitte (2022), increasingly more companies are including sustainability principles in their core strategies, making it a new paradigm of conceiving luxury by following ESG criteria (Environmental, Social, and Governance) and applying the concept of being "sustainable by design", which refers to products that are created to be compliant to the principles of sustainability right from the initial stages of product design.

In literature, various sustainable strategies luxury companies can employ were researched: they can render the process of marketing products in a more environmentally friendly way by for instance adapting the packaging; the production process can be also adapted to a greener way by reducing energy and water consumption; they can develop new green product components using innovative sustainable raw materials such as mylo (i.e., the root structure of a mushroom) instead of animal leather; or other options could be the use of repurposed materials through recycling or upcycling production processes (Adıgüzel & Donato, 2021).

Due to the convergence between specific luxury attributes, such as durability and high quality, and sustainability, recent evidence suggests that consumers perceive sustainable luxury product attributes positively (Angelis et al., 2017; Grazzini et al., 2021). Also, the environmental performance of a firm can easily be realized through environment-friendly products (Huang et al., 2014).

Hence, for the purpose of the present study, two subsections were created, to research the use of recycled materials and the use of environment-friendly materials.

2.1.1. Recycling

According to previous literature on the topic, recycling is using materials from existing garments to create new or improved versions of products. Adopting recycling in a business model implies transformations in the cost structure, key activities, and key partners' parameters, as firms in the fashion industry tend to acquire recycled materials instead of processing them (Todeschini et al., 2017).

Furthermore, several brands, including luxury ones, are launching recycled and upcycled products, two typical strategies of the circular economy resulting from the increasing need to shift to a "reduce, reuse, recycle" model of production and consumption (Adıgüzel & Donato, 2021). In terms of expected consumer response, according to a survey performed by McKinsey (Amed et al., 2023), results showed that 54 percent of consumers anticipate buying more recycled clothes.

Previous research on this subject had concluded that the success of these strategies is uncertain as the way consumers perceive luxury actually determines the luxury–sustainability compatibility since the contradiction grows when they regard luxury as "creating social unrest" and "superficial" Kapferer and Michaut-Denizeau (2014). Thus, brands are still researching if the use of recycled materials adds value to their portfolio, as very few existing luxury brands are actively involved in producing recycled products, and even if they are, they do not advertise this activity extensively in their marketing campaigns, or they launch the products in isolated lines (Adıgüzel & Donato, 2021).

This strategy has been studied for a while, in fact, there have been research papers showing that it may be successful and others showing otherwise. For instance, according to Achabou and Dekhili (2013), the use of recycled materials in luxury goods could have a negative impact in terms of consumer preferences, as there may be an incompatibility between recycling and luxury products. On the other hand, recent research concluded that a luxury fashion product presenting recycled materials leads to higher consumer purchase intentions than a luxury fashion product not presenting recycled materials, according to Grazzini et al. (2021).

Hence, the first hypothesis for the study is suggested as:

H1: The presence of recycled materials in luxury fashion goods leads to higher purchase intentions.

2.1.2. Environment-friendly materials

According to literature, recent evidence suggests that consumers perceive sustainable luxury products positively (De Angelis et al., 2017), because of the convergence between specific luxury attributes (e.g., durability, high quality) and sustainability (Grazzini et al., 2021). The way people think about the attributes and features that define a product concept or category can play a role in the extent to which a product is perceived as green (Gershoff & Frels, 2015).

For luxury brands, a way to address the demand for sustainable alternatives is to launch limited collections while maintaining their current product portfolio, to minimize possible negative impacts on revenue and unpredicted challenges (Berry, 2022). Some luxury brands have already tried this approach, for instance, Prada launched a re-Nylon collection that uses ECONYL regenerated nylon. Also, Burberry took a similar approach in their garments, launching ReBurberry, a collection that also uses ECONYL, as well as leather from certified tanneries and sustainability-sourced materials (Berry, 2022).

In spite of this, whilst some luxury brands are adapting their strategies and trying new approaches, others have built their entire brand identity on it, as in the case of Stella McCartney. The designer built a brand with the message of sustainability, by denying the use of leather, feathers, fur, or skins.

Moreover, for several years, fashion companies have been introducing products with components made by materials that reduce their environmental impact (Gershoff and Frels, 2015). Grazzini et al. (2021) researched the relationship between these environment-friendly materials and purchase intention for the fashion industry as a whole, and found out that when a fast fashion product presents a sustainable attribute compared to a fast fashion product that does not present a sustainable attribute, purchase intentions are enhanced. Hence, the present study included this construct in the model to understand this relationship for luxury fashion products in specific.

Therefore, the second hypothesis for the study is suggested as:

H2: Sustainable product attributes in luxury fashion goods positively influence purchase intentions.

2.2. Brand's actions

In an era where competition is vast and information is at the consumer's fingertips, it is essential for luxury brands to have a fully sustainable and transparent business strategy (Franco et al., 2019). Hence, despite the brands' efforts in particular business areas, there is no single action that leads to sustainability, as it takes time and effort from individuals and groups to achieve sustainability through decision-making, business strategies, and government policies (Mok et al., 2022).

Luxury customers are increasingly interested in the social and environmental impact of the luxury fashion goods they buy and, therefore, the opportunity for companies to combine sustainability and luxury brand development is central to luxury fashion management (Winston, 2016; Amatulli et al., 2017; Arrigo, 2018).

A way for brands to communicate their interest in the environmental and social impact of their activity is through Corporate Environmental Responsibility (CER) and Corporate Social Responsibility (CSR) activities. Note that, although these concepts are separated into two sections to better justify the hypotheses, CER activities are included by several authors as part of CSR, with some even referring to it as Green CSR (Prasad et al., 2019).

2.2.1. Corporate environmental responsibility

Kapferer and Michaut-Denizeau (2014) have described sustainability within the luxury industry as "sustainability silence" because only a few luxury companies take a proactive stance in sustainable development.

Corporate environmental responsibility is more common in day-to-day operations as environmentally responsible corporate activities in daily business operations, with the aim to reduce adverse environmental impacts (Mazurkiewicz, 2004), which are often not very visible to the consumer (Tang et al., 2018).

Despite not being visible to most at a glance, these activities may impact the brand's revenues due to consumer taste. As mentioned before, there is a rising concern about sustainability, which led consumers to demand more transparency from brands before purchasing.

In the fashion industry, due to the high levels of pollution from several sources along the supply chain, there are several opportunities for brands to apply CER activities and promote them, as a way to be closer to their consumers and also differentiate from competitors. Examples of CER activities taken by luxury fashion brands in the past aim at reducing pollution, waste, natural resource consumption, and emissions through their manufacturing process. For instance, Mara Hoffman implemented CER activities by hosting a second-hand shop to keep items out of landfills and therefore reduce their waste impacts (Perry & Wright, 2022).

Moreover, according to respondents to a survey of U.S. consumer attitudes on sustainable shopping by First Insight and the Baker Retailing Center at the Wharton School of the University of Pennsylvania, over a third of respondents chose brands demonstrating environmentally sustainable practices or values (Bringé, 2023).

Thus, the third hypothesis for the present research is suggested as:

H3: For luxury fashion brands, Corporate Environmental Responsibility activities have a positive effect on purchase intentions.

2.2.2. Corporate social responsibility

Corporate social responsibility activities can be defined as company activities demonstrating the inclusion of environmental and social concerns in business operations and in interactions with stakeholders (Van Marrewijk, 2003,). Hence, they have the potential to become part of an important strategy for attracting consumer attention in today's competitive market environment (Luo & Bhattacharya, 2006).

Furthermore, Mohr and Webb (2006) suggested that CSR had a significant positive effect on the evaluation of a company and purchase intent. This is because consumers also perceive factors related to CSR activities beyond financial performance in evaluating a company, and such factors not only affect their attitude toward products but also their recommendations and purchases (Kim & Lee, 2019).

Aligned with the rising consumer desire to purchase sustainable products, the number of fashion companies advertising their efforts in sustainability and CSR is increasing (Aoki et al., 2019), as engaging in CSR may allow firms to understand their generalized customers better and thus improve their customer-specific knowledge (Sen & Bhattacharya, 2001).

Luxury goods companies have been active in terms of social sustainability and supporting the "woke movement" for many years now, e.g., by adhering to no fur campaigns, taking a stand for social causes such as the fight against child labor, and supporting diversity and inclusion among their models and designs, such as gender fluid garments and accessories (Deloitte, 2022). Wong and Dhanesh (2017) concluded that luxury brands predominantly framed their CSR efforts as going beyond what is required, driven by purely good-hearted, altruistic motives.

All else being equal, customers likely derive better-perceived value and, consequently, higher satisfaction from a product that is made by a socially responsible company, for instance, added value through good social causes (Luo & Bhattacharya, 2006).

Hence, the fourth hypothesis for the present study is suggested as:

H4: For luxury fashion brands, Corporate Social Responsibility activities have a positive effect on purchase intentions.

2.3. Brand position and purchase intention

According to Keller et al. (2011), brand positioning is the organizational effort and strategy to attain a particular place in the customer's mind, such as designing the brand image as the consumer desires. Clear positive market positions are important because they help consumers understand how firms fit into the competitive landscape, provide a point of differentiation, reduce uncertainty about firms and their products, and increase purchase intentions (Brown & Dacin, 1997).

To reach green brand positioning and competitive advantage, there has to be an effort to focus on environment-related issues and attributes. Positioning a brand as a "green brand" requires active communication and differentiation of the brand from its competitors through the emphasis on its environmentally friendly attributes (Rios et al., 2006; Huang et al., 2014).

Moreover, the study of Amoako et al. (2020) provided conclusions that a positive attitude toward green products may increase the chances of purchase intention, and the research of Yan et al. (2010) has provided conclusions that brand attitude may mediate effects on purchase intentions.

The way consumers make purchasing decisions about fashion products positioned as eco-friendly or sustainable is of paramount importance, in that consumers seem to be concerned about sustainability issues (Lundblad & Davies, 2015). Thus, the research of Şener et al. (2023), tested the hypothesis that a brand's attitude towards recycled content clothing has a significant effect on purchase intention, which was supported by the model defined.

Recent literature has shown that as a consequence of the rise of environmental concerns, customers are revealing a positive attitude regarding the purchase of green products (Biswas, 2017). Moreover, the results of the study done by Wang et al. (2022) showed that green brand positioning and green customer value have a noteworthy impact on green purchase intention.

2.4.   Expected results

When considering a purchase, the composition of the product is always mentioned prior to the decision since, as researched by Zhao et al. (2021), relevant product details contributes positively to consumer buying behavior. On the other hand, if a customer wants to find out more about the brand's activities, they are most likely going to have to research this information.

Thus, while the product attributes are accessible at all times, CER and CSR activities are usually not as seen since, as mentioned by Kapferer and Michaut-Denizeau (2014), the potential issues in luxury to be assessed with these activities refer to hidden parts of the supply chain, therefore not directly observed by the consumer when purchasing the product. The case of CER becomes even harder to observe as the activities are related to the Environmental pillar and not to the Social one.

Hence, the expectation is that the relationship between the product-related constructs (Recycling and Environment-friendly materials) and purchase intention will be stronger than the one between brand-related constructs (CER and CSR) and purchase intention.

3. METHODOLOGY AND DATA COLLECTION

3.1. Conceptual model

The aim of this research is to find the relationship between sustainability and purchase intention, for luxury fashion brands, testing both product attributes and the impact of social and environmental corporate activities. To develop the study and achieve conclusions, the methodology was thought out in a way that answers the aim of the research and defines a model to find conclusions.

Hence, the conceptual model suggested (Figure 1) illustrates the relationship between the constructs highlighted in the previous chapter and was created as an outcome of the revision and adaptation of various scales from models of previous studies (Hamzaoui-Essoussi & Linton, 2014; Wang & Hazen, 2015; Sudbury-Riley & Kohlbacher, 2016; Bielawska & Grębosz-Krawczyk, 2021; Davis & Dabas, 2021; Olšanova et al., 2022; Jung & Jin, 2014). The research of Hamzaoui-Essoussi & Linton (2014) researched green product attributes and their impact on consumers' willingness to pay. Sudbury-Riley & Kohlbacher (2016) focused on the development and validation of a new scale called Ethically Minded Consumer Behavior (EMCB), which conceptualizes ethically minded consumer behavior as a variety of consumption choices, related to environmental issues and CSR. On a different note, Davis & Dabas (2021) used structural equation modeling to research organic apparel and purchase behavior, and Jung & Jin (2014) researched sustainable fashion, in a way that allowed them to take conclusions regarding consumer orientations towards slow fashion and its underlying dimensions, such as equity, authenticity, functionality, localism, and exclusivity. On the survey, there is also one item self-elaborated, to provide conclusions based on market competition and differentiation.

Hence, the model created attempts to confirm and test the hypotheses and understand the consumers' point of view, regarding the luxury fashion market through the suggested hypotheses presented below:

H1: The presence of recycled materials in luxury fashion goods leads to higher purchase intentions.

H2: Sustainable product attributes in luxury fashion goods positively influence purchase intentions.

H3: For luxury fashion brands, Corporate Environmental Responsibility activities have a positive effect on purchase intentions.

H4: For luxury fashion brands, Corporate Social Responsibility activities have a positive effect on purchase intentions.

Figure 1: Proposed Conceptual Model
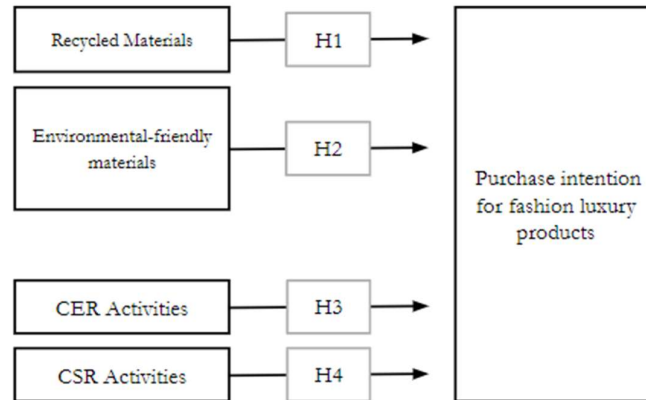
3.2. Survey and measurements

This study required the elaboration of a questionnaire, through a survey divided into two main sections, one for the consumer profile characteristics and a second one with items regarding each construct: Recycling (RC), Sustainable Attributes (SA), CER Activities (ER), CSR Activities (SR), and Purchase Intention (PI). As a way of granting validity to the results, most items of the questionnaire were adapted from existing studies in the literature (Table 1.). Since the study was conducted in the Portuguese market, the survey was only made available in Portuguese, which called for a need to do a translation through the retro-translation method. In this method, the items were translated to Portuguese at first and then translated back to English by a different person, so that there could be a comparison between the obtained and the original items.

Each construct had at least three items to be analyzed, so, according to the existing literature, the results estimated provide a higher level of confidence (Hair et al., 2010). Moreover, there was an effort to shorten the survey's length as the number of items has a direct effect on the time taken to complete the questionnaire, response rate, and quality of data obtained, and the research of Sahlqvist et al. (2011) concluded that participants were more likely to respond to a short version of the questionnaire as compared to a long questionnaire (Sharma, 2022).

In terms of measures, all items from the second section were measured using a five-point Likert scale, to assess the level of agreement, where one indicates strong disagreement and five indicates strong agreement. The five-point scale was used as it was the most common measure in the models mentioned above.

Table 1: Constructs and measurement items

Construct		Measurement
Recycling		
Hamzaoui-Essoussi, L. & Linton, J.D. (2014) (adapted)	RC1	I am interested in recycled luxury fashion products in general.
Dobbelstein, T. & Lochner, C. (2023) (adapted)	RC2	When I have to choose between a recycled and a product made of new/conventional materials, I will typically choose the recycled version.
	RC3	I would pay more for a recycled product than for a product made of new/conventional materials.
Environment-friendly materials		
Davis, L. & Dabas, C. (2021) (adapted)	EF1	I have switched to luxury clothing made from organic textiles for ecological reasons.
	EF2	I have avoided buying a luxury clothing item because it had potentially harmful environmental effects.
	EF3	When I have a choice between two similar luxury clothing items, I purchase the one made from textile materials that are less harmful to the environment.
CER activities		
Mostafa, M. (2007) (adapted)	ER1	I know how to select luxury fashion products and packages that reduce the amount of waste.
Olšanova, K., Ríos, A., Cook, G., Král, P., Zlatic, M. (2020)	ER2	I appreciate if a luxury fashion brand is trying to allocate resources to offer services compatible with the environment.

(adapted)	ER3	I am ready to boycott a luxury fashion company that does not comply with social and environmental regulations.
Self-elaborated	ER4	I value environmental efforts taken by luxury fashion brands compared to the nonexistence of efforts from its competitors.

CSR activities		
Olšanova, K., Ríos, A., Cook, G., Král, P., Zlatic, M. (2020) (adapted)	SR1	It is important to me if luxury fashion brand X is trying to be highly committed to well-defined ethical principles.
	SR2	I appreciate if a luxury fashion brand is trying to make financial donations to social causes.
Jung , Sojin and Byoungho, Jin, (2014)	SR3	I am concerned about the working conditions of producers when I buy clothes.

Purchase intention		
Sudbury-Riley, L., Kohlbacher, F.(2017) (adapted)	PI1	I will not buy a luxury fashion product if I know that the company that sells it is socially irresponsible.
	PI2	I do not buy luxury fashion products from companies that I know use sweatshop labor, child labor, or other poor working conditions.
	PI3	I have paid more for socially responsible luxury fashion products when there is a cheaper alternative.
Bielawska, K. and Grębosz-Krawczyk, M. (2021) (adapted)	PI4	I make a special effort to buy luxury clothing products that are made from recycled, biodegradable, or biomaterials.
Davis, L. and Dabas, C. (2021) (adapted)	PI5	I make a special effort to buy luxury clothing made from organic textiles, such as organic cotton.

3.3. Data collection and sample description

Following what was stated in the previous section, the research was conducted through a questionnaire, whose responses were gathered from a survey developed in Google Forms web-based software. The survey conducted was shared via the University of Porto

institutional email and social media, specifically, Instagram, WhatsApp, and Facebook groups, collecting 254 valid responses in total. The survey was conducted between the 10th of May and the 15th of June. Moreover, in Table 2, an overall characterization of the sample is summarized.

Table 2: Demographic characteristics

Customer profile	Frequency	Percentage
Age		
18 to 24	151	59,45%
25 to 34	58	22,83%
35 to 44	27	10,63%
45 to 54	15	5,91%
55 to 64	2	0,79%
65 or more	1	0,39%
Gender		
Male	89	35,1 %
Female	161	63,4 %
Other	4	1,5 %
Current situation		
Student	139	54.7%
Worker	103	40.6%
Unemployed	5	1.9%
Other	7	2.8%
Grand Total	254	100%

3.4. Reliability and validity analysis

The survey answers were analyzed through a descriptive analysis to describe and summarize the data collected, and an explicative analysis to test the hypotheses formulated before. First, tests were performed to measure the fit of the model, providing validity and reliability analysis. Then, the hypotheses were tested in a regression model.

After the characterization of the sample, according to its demographic variables, the model constructs were analyzed through validity tests, by reducing the data through a summarization of the items that form each construct. To reduce the data, summarizing, factor analysis was used. With factorial analysis, it becomes possible to explain the behavior of several variables (items) that measure the same concept, transforming them into a smaller set of factors or latent variables (Rezende et al., 2007). Since various scales (Hamzaoui-Essoussi & Linton, 2014; Wang & Hazen, 2015; Sudbury-Riley & Kohlbacher, 2016; Bielawska & Grębosz-Krawczyk, 2021; Davis & Dabas, 2021; Olšanova et al., 2022; Jung & Jin, 2014) were used to create the model, as mentioned before, this test was quite important.

Thus, in order to test the validity of the constructs and whether they can be used for a future factorial analysis, the Keizer Meyer-Olkin (KMO) test and Bartlett's test of sphericity were used. With the performance of the KMO test, it is intended to verify the homogeneity of the variables, comparing the simple correlations with the partial correlations among variables.

The results from Barlett's test of sphericity and Kaiser-Meyer-Olkin (KMO) are shown in Table 3. According to Hair et al. (2010), as the KMO of 0,912 is higher than 0,9, the sample is appropriate for factor analysis, as it implies that the variables generated from the systematic or common variance have a high proportion of variance. Moreover, Barlett's test showed a significance of 0,000, once again confirming the suitability of the model, as it means that the correlation matrix differs from the identity matrix.

Table 3: KMO and Bartlett's test for sphericity

Kaiser-Meyer-Olkin measure for sampling adequacy		0,912
Bartlett's Test for Sphericity	Approximate Chi-Square	2400,620
	Degrees of freedom	153
	Significance	0.000

Proceeding with the analysis, after the KMO and Bartlett's sphericity test were performed to assess the data's suitability for factor analysis, an Exploratory Factor Analysis (EFA) was conducted. The extraction method chosen for the analysis was a Principal Axis Factoring combined with Varimax rotation. The factor loadings (Table 4.) are all significant as they range between 0,537 and 0,761, which are above the cut-off value of 0,500 following the research of Hair et al. (2010).

The means of the items were calculated (Table 4.) and show that RC1 and PI4 showed the highest frequency of disagreement among the respondents having means of 2,776 and 2,594, respectively. On the other side, EF3 and ER2 showed the highest frequencies of agreement, with means of 4,315 and 4,283. Furthermore, regarding the means of each construct, Environment-friendly Materials (EF) and CSR Activities (SR) showed higher means, therefore having higher levels of agreement. The lowest level of agreement, when observing the means of the constructs, corresponded to Recycling (RC).

Moving on, as convergent validity is the extent to which the effort to measure the same concept is in harmony (Chu & Lu, 2007), Composite Reliability (CR) was also tested, to assess the internal consistency of the measurement model. As observed in Table 4, all items showed good results given that all were above 0,6, which is the limit stated by Bagozzi and Yi (1988).

Table 4: Factor loadings, means, and CR

Construct/Item	Factor loadings	Means	CR
Recycling			0,692
RC1	0,591	2,776	
RC2	0,716	3,228	
RC3	0,653	3,795	
Environment-friendly Materials			0,727
EF1	0,742	3,543	
EF2	0,739	3,795	
EF3	0,568	4,315	
CER Activities			0,781
ER1	0,607	3,319	
ER2	0,719	4,283	
ER3	0,655	3,177	
ER4	0,761	3,992	
CSR Activities			0,726

SR1	0,741	3,921	
SR2	0,620	3,835	
SR3	0,690	3,795	
Purchase Intention			0,755
PI1	0,665	3,744	
PI2	0,562	4,209	
PI3	0,576	2,858	
PI4	0,738	2,594	
PI5	0,537	3,067	

Note: CR is the composed reliability

Then, to verify the reliability of the constructs and still regarding their internal consistency, Cronbach's alphas (α) were calculated (Table 5.). Cronbach's alpha was developed in order to be used to measure the internal consistency of a scale, meaning that it is used to determine whether all items in a test measure the same construct. This calculation was crucial as the determination of internal consistency must be performed before proceeding with any other test for research purposes in order to ensure its validity (Tavakol & Dennick, 2011). The α values range from 0 to 1, and as the value approaches 1, the internal consistency of the scale and the relationship between the items increases. All constructs showed a high Cronbach's αaccording to the research of Taber (2018), as all values calculated are above 0,7, which suggests that the items measuring each dimension are of high reliability. Lastly, correlations among variables are also displayed in Table 5..

Table 5: Mean, Cronbach's α, and square of the correlation between each construct

Construct	Mean	α	CR	RC	EF	ER	SR	PI
RC	2,933	0,758	0,692	0,655	0,585	0,469	0,391	0,916
EF	3,885	0,747	0,727	0,765	0,689	0,776	0,573	0,542
ER	3,693	0,757	0,781	0,685	0,881	0,689	0,764	0,542
SR	3,850	0,790	0,726	0,625	0,757	0,874	0,685	0,536
PI	3,294	0,757	0,755	0,957	0,838	0,736	0,732	0,625

Note: Diagonals are the square root of the AVE (average variance extracted) of each factor; below the diagonal – correlations between constructs; above the diagonal – squared correlations between constructs;

A model's fit should be assessed concerning multiple measures, including indices of absolute fit, incremental fit, goodness-of-fit, and badness-of-fit (Hair et al., 2010). After analyzing the reliability of the constructs of the model, the study proceeded with an analysis of several fit indices, as displayed in Table 6..

The first evaluated fit index was χ2/df, a standard for overall fit, which showed a value of 2,226, which is below the 3,000 reference stated by the recommendation of Hair et al. (2010). All other values in Table 6. are also in accordance with the recommended values of Hair et al. (2010), except for RMSEA and TLI, which show minor differences, hence, not significantly concerning to the assessment of the model fit.

Table 6: Fit indices for the measurement model

Fit Indices	Recommended values	Result
χ^2/df	< 3,000	2,226
GFI	> 0,900	0,904
AGFI	> 0,800	0,853
RMSEA	< 0,070	0,072
NFI	> 0,900	0,900
CFI	> 0,920	0,941
IFI	> 0,900	0,942
TLI	> 0,920	0,919

Note: χ^2/df is the chi-square divided by the degrees of freedom; GFI is the goodness of fit; AGFI is the adjusted goodness of fit ; RMSEA is the root mean square error of approximation; NFI is the normed fit index; CFI is the comparative fit index; IFI is the incremental fit index; TLI is the Tucker Lewis index.

4.   HYPOTHESES TESTING

After verifying the reliability and validity of the constructs for the factorial analysis, the hypotheses were verified by estimating the path coefficients between variables, either to confirm or reject this research. For this, linear regressions were performed to validate the hypotheses, using the ordinary least squares method. Linear regression is often used by researchers to test relationships between variables. When the relationship between the variables is possible to be described through a first-degree equation, we are facing a linear regression, in which there is a dependent variable and one or more independent ones. In this case PI is the dependent variable, whilst RC, EF, ER, and SR are the independent variables. If only one dependent variable is used, we are facing a simple linear regression, if there are more than two, we are facing a multiple linear regression (Lucian, 2015).

4.1.   Regression results

Table 7. portrays the results for the four hypotheses in this study, including standardized estimates, standard error, critical ratio, significance level, and final result of approval. Except for H3, all hypotheses were significant (p=0,000) and therefore confirmed. The following subsections analyze the hypotheses' results in detail.

Table 7: Research hypotheses

Hypothesis	Concept	β	S.E.	C.R.	p	Result
H1	Recycling	0,856	0,106	8,080	***	**Confirmed**
H2	Environment-friendly Materials	0,306	0,053	5,803	***	**Confirmed**
H3	CER Activities	0,024	0,055	0,430	0,667	**Rejected**
H4	CSR Activities	0,212	0,050	4,285	***	**Confirmed**

Note: β – Standardized estimate; S.E. – Standard Error; C.R. – Critical Ratio; p – Significance; *** – p=0,000

Figure 2: Model after regression
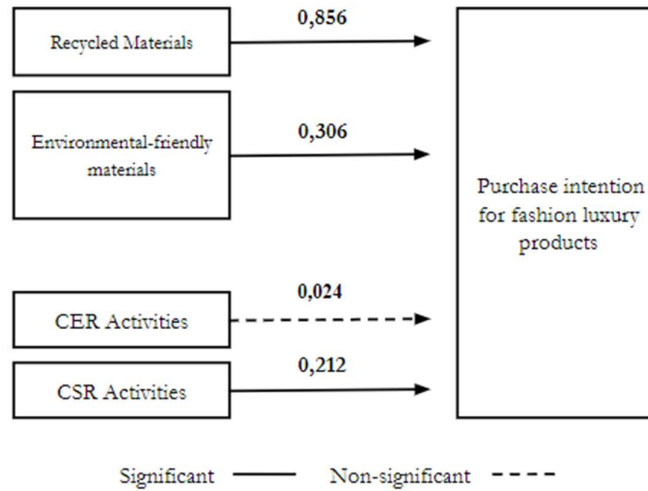
4.2. Discussion of results

4.2.1. Recycling and purchase intention

The results above (Table 7.), indicate the confirmation of H1 with solid support (H1: β = 0,856, p=0,000), showing recycling as the first driver of purchase intention in the present investigation. The confirmed hypothesis means that including recycling materials in the product attributes has a positive influence on purchase intention, in line with existing literature on the topic as for instance the research of Bielawska and Grębosz-Krawczyk (2021). De Angelis (2017) met the same conclusions and confirmed that luxury brands can be both gold and green. However, the results go against the conclusions provided by Grazzini et al. (2021) that incorporating sustainable attributes (i.e., recycled materials) in a luxury product does not affect consumer preferences, hence, not having a significant impact on purchase intention.

4.2.2. Environment-friendly materials and purchase intention

Proceeding with the analysis with the outcomes for H2, results suggest its confirmation (H2: β = 0,306, p=0,000), although the coefficient shows a much smaller influence on purchase intention when compared to recycling. These results align with the conclusions from various studies (Niinimäki, 2010; Steinhart et al., 2013; Cervellon & Wernerfelt, 2012) that have proven a positive influence from environment-friendly materials and purchase intentions.

4.2.3. CER activities and purchase intention

The results (Table 8.) suggest that H3 was not confirmed (H3: $\beta = 0,024$, p=0,667). Even if there is a positive relationship between the two constructs, the connection is insignificant, as the p-value is of 0,667.

As mentioned previously, whilst product attributes are generally promoted and shown in the product's information, the brands' activities are not as known to the general consumer. Thus, if the consumer is not interested in the brand's identity, only in the product, these activities will represent little weight when considering a purchase.

This hypothesis result is in line with the research of Olšanova et al. (2022), which stated that as these activities relate to the planet, pollution, the environment, and health, they end up being too distant for the actual purchase decision-making and day-to-day involvement of the consumers.

4.2.4. CSR activities and purchase intention

The last hypothesis was confirmed by the model (H4: $\beta = 0,212$, p=0,000). These results are according to what has been researched by several authors, such as Olšanova et al. (2022), and Davies et al. (2012). This is according to what was expected, since luxury consumers implicitly hold the belief that luxury brands have the duty of being sustainable, a mission of exemplarity based on their price, and promised exceptional quality (Kapferer & Michaut-Denizeau, 2014).

5. CONCLUSIONS, IMPLICATIONS, LIMITATIONS, AND SUGGESTIONS FOR FURTHER RESEARCH

5.1. General conclusions

The goal of the research was to understand the relationship between sustainability and purchase intention, for luxury fashion brands. Portuguese consumers have shown sustainable product attributes have a higher influence on purchase intention, rather than sustainable brand activities. As mentioned before, this was expected and has already been referred to in the literature (Olšanova et al., 2022), as sustainable product attributes are often too distant to be acknowledged by the consumer when considering a purchase.

Regarding the product, recycled materials have a higher influence on purchase intention than environment-friendly materials. This makes sense as recycling is a much more present concept in the consumers' eyes than materials that are recent and not as seen. For instance, consumers more directly associate recycled cotton with sustainability, rather than for instance ECONYL, which is much more recent and less generalized. Moreover, the environment-friendly materials are constantly being developed, which makes it more difficult for consumers to stay up to date with each of them. For example, the innovation of Stella McCartney of using mylo in their products composition as a substitute for leather is not generalized knowledge to all consumers (Adıgüzel & Donato, 2021), hence, the relationship with purchase intention is less significant. Unless the materials are appropriately promoted, or the consumer has an interest in researching, they may not be very influential on purchase intention.

Concerning sustainable brand activities, CSR activities are more influential on purchase intention than CER activities. This shows consumers are more concerned with social sustainability rather than environmental sustainability. Activities such as supporting social causes and working conditions mean more to the consumer when considering a luxury fashion purchase than waste management and pollution-reduction initiatives. A possible reason behind this is that the social activities mentioned in the survey (in particular financial donations to social causes) are usually more used for marketing and promotional purposes than the environmental activities referred, which makes them more known to the consumer.

5.2.   Managerial implications

The findings from this study present managerial implications for marketers and brand managers. To marketers, the insights of the research are useful to develop, create and adapt marketing strategies to retain and attract new consumers into purchasing sustainable luxury fashion. For example, with the results of the model created, it is proved that recycled materials positively influence purchase intentions. Hence, to attract and retain new consumers, marketers can, while promoting their products, promote the collections with recycled materials in their composition to show environment-concerned consumers why that sustainable piece of clothing is better and less harmful to the environment than the ones who are presented by the competition. This study provided insights more specific than the ones available in literature, therefore helpful for more detailed strategies at a national level.

Moving on, for brand managers, the present study has many more useful insights. The findings of this research can provide a new perspective and valuable information to develop and adapt strategies in a wider scope than mentioned previously, as to do so it is mandatory to understand consumer behaviors. By understanding consumer behaviors, and what drives the mentioned behaviors, creating strategies to boost sustainable consumption will become much easier. As the model created measures both product and brand-related, the insights are useful for decision-making regarding product portfolio and associated promotion strategies, as well as the environment or social activities.

Moreover, consumer preferences can be explored to a deeper level, as the demand for transparency increases, supply chains can be adapted to match these concerns.

5.3.   Limitations and suggestions for further research

The limitations of this dissertation relate to the fact that the sample was relatively small, and the survey was available only for Portuguese speakers. Furthermore, over 50% of the respondents are under 24 years old, which is likely to interfere with the study. Thus, despite trying to maximize its diversity, the gathered results only refer to this sample and comprise the Portuguese market, which is why its generalization to other countries should be made carefully. It could be interesting to expand the study to other age gaps and nationalities. Including average monthly available income in the sample characteristics' statistics could also lead to interesting conclusions.

Moreover, the survey did not present any scenario for the majority of the questions, as some authors do (Dekhili et al., 2019; Kapferer & Michaut-Denizeau, 2014; Achabou & Dekhili, 2013), for instance, a t-shirt or a pair of shoes, which could lead to different answers among consumers, by providing a standard reference. Another possible continuation of the study could be to do an analysis per generation and assess if younger generations (for instance Generation Z) show different concerns when compared to older ones (Generation X or Baby Boomers).

Regarding the conceptual model, other constructs could be added to further research brand's activities as this study's results showed that CER and CSR activities have different impacts on purchase intention. The last suggestion is to proceed the analysis from purchase intention to actual purchase behavior.

6. REFERENCES

Achabou, M. A., & Dekhili, S. (2013). Luxury and sustainable development: Is there a match? *Journal of Business Research*, *66*(10), 1896-1903. http://doi.org/10.1016/j.jbusres.2013.02.011.

Adıgüzel, F., & Donato, C. (2021). Proud to be sustainable: Upcycled versus recycled luxury products. *Journal of Business Research*, *130*, 137-146. https://doi.org/10.1016/j.jbusres.2021.03.033.

Alghanim, S., & Ndubisi, N. O. (2022). The Paradox of Sustainability and Luxury Consumption: The Role of Value Perceptions and Consumer Income. *Sustainability*, *14*(22), 14694. https://doi.org/10.3390/su142214694.

Amatulli, C., Guido, G., De Angelis, M., & Costabile, M. (2017). *Sustainable Luxury Brands: Evidence from Research and Implications for Managers*. Palgrave Macmillan UK. http://doi.org/10.1057/978-1-137-60159-9.

Amed, I., Berg, A., Balchandani, A., Rolkens, F., Grunberg, J., André, S., Devillard, S., Straub, M., Kersnar, J., & Crump, H. (2023). *The State of Fashion 2023*. Business of Fashion.

Amoako, G. K., Dzogbenuku, R. K., & Abubakari, A. (2020). Do green knowledge and attitude influence the youth's green purchasing? Theory of planned behavior. *International Journal of Productivity and Performance Management*, *69*(8), 1609-1626. https://doi.org/10.1108/IJPPM-12-2019-0595.

Angelis, M. D., Adıgüzel, F., & Amatulli, C. (2017). The role of design similarity in consumers' evaluation of new green products: An investigation of luxury fashion brands. *Journal of Cleaner Production*, *141*, 1515-1527. http://dx.doi.org/10.1016/j.jclepro.2016.09.230.

Arrigo, E. (2018). The flagship stores as sustainability communication channels for luxury fashion retailers. *Journal of Retailing and Consumer Services*, *44*, 170-177. https://doi.org/10.1016/j.jretconser.2018.06.011.

Athwal, N., Wells, V. K., Carrigan, M., & Henninger, C. E. (2019). Sustainable Luxury Marketing: A Synthesis and Research Agenda. *International Journal of Management Reviews*, *21*(4), 405-426. https://doi.org/10.1111/ijmr.12195.

Aulina, L., & Yuliati, E. (2017). The Effects of Green Brand Positioning, Green Brand Knowledge, and Attitude towards Green Brand on Green Products Purchase Intention. *Atlantis Press*, *36*. http://doi.org/https://doi.org/10.2991/icbmr-17.2017.50.

Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, *16*(1), 74-94. http://dx.doi.org/10.1007/BF02723327.

Berg, A., Magnus, K.-H., Granskog, A., & Lee, L. (2020, August 26). *How the fashion industry can reduce its carbon footprint*. McKinsey. Retrieved May 17, 2023, from https://www.mckinsey.com/industries/retail/our-insights/fashion-on-climate.

Berry, T. (2022, June 16). *Conscious Luxury 22*. Farfetch. Retrieved May 28, 2023, from https://stories.farfetch.com/consciousluxurytrends2022/.

Bielawska, K., & Grębosz-Krawczyk, M. (2021). Consumers' Choice Behaviour Toward Green Clothing. *European Research Studies Journal*, *XXIV*(2), 238-256. http://doi.org/10.35808/ersj/2124.

Biswas, A. (2017). A consumption value-gap analysis for sustainable consumption. *Environ Sci Pollut Res*, *24*, 7714–7725. http://doi.org/10.1007/s11356-016-8355-9.

Bringé, A. (2023, January 2). *The State Of Sustainability In The Fashion Industry (And What It Means For Brands)*. Forbes. Retrieved May 26, 2023, from https://www.forbes.com/sites/forbescommunicationscouncil/2023/01/02/the-state-of-sustainability-in-the-fashion-industry-and-what-it-means-for-brands/?sh=70a479731c82.

Brown, T. J., & Dacin, P. A. (1997). The company and the product: Corporate associations and consumer product responses. *Journal of Marketing*, *61*(1), 68-84. https://doi.org/10.2307/1252190.

Caldecott, S. (2022, October 4). *Are Luxury Brands More Sustainable? — Remake*. Remake. Retrieved June 10, 2023, from https://remake.world/stories/are-luxury-brands-more-sustainable/.

Cervellon, M., & Wernerfelt, A. (2012). Knowledge sharing among green fashion communities online: Lessons for the sustainable supply chain. *Journal of Fashion Marketing and Management*, *16*(2), 176-192. https://doi.org/10.1108/13612021211222860.

Chaudry, H., & Christinee, L. (2022, November 27). *11 Dirty Fast Fashion Statistics You'll Want To Know*. The Wellness Feed. Retrieved May 17, 2023, from https://thewellnessfeed.com/fast-fashion-statistics-221/.

Chen, Y.-S., & Chang, C.-H. (2012). Enhance green purchase intentions - The roles of green perceived value, green perceived risk, and green trust. *Management Decision*, *50*(3), 502-520. http://doi.org/10.1108/00251741211216250.

Chi, T., Ganak, J., Summers, L., Adesanya, O., McCoy, L., Liu, H., & Tai, Y. (2021). Understanding Perceived Value and Purchase Intention toward Eco-Friendly Athleisure Apparel: Insights from U.S. Millennials. *Sustainability*, *13*(14), 7946. https://doi.org/10.3390/su13147946.

Chu, C. W., & Lu, H. P. (2007). "Factors influencing online music purchase intention in Taiwan: An empirical study based on the value intention framework. *Internet Research*, *17*(2), 139-135. http://doi.org/10.1108/10662240710737004.

Danigelis, A. (2018, July 24). *Burberry Under Fire for Burning Unsold Products Worth $37 Million*. Environment + Energy Leader. Retrieved June 28, 2023, from https://www.environmentalleader.com/2018/07/burberry-burning-unsold-products/.

Davies, I. A., Lee, Z., & Ahonkhai, I. (2012). Do consumers care about Ethical-Luxury? *Journal of Business Ethics*, *106*(1), 37-51. https://doi.org/10.1007/s10551-011-1071-y.

Davis, L., & Dabas, C. (2021). Capturing sustainable fashion purchase behavior of Hispanic consumers in the US. *Journal of Global Fashion Marketing*, *12*(3), 245-259. https://doi.org/10.1080/20932685.2021.1899016.

Dekhili, S., Achabou, M. A., & Alharbi, F. (2019). Could sustainability improve the promotion of luxury products? *European Business Review*, *31*(4), 488-511. http://doi.org/10.1108/ebr-04-2018-0083.

Deloitte. (2022). *Global Powers of Luxury Goods 2022: A new wave of enthusiasm in luxury*. Deloitte.

Fiorani, G., Bosco, F., & Gerio, C. D. (2022). Measuring Sustainability in the Luxury Fashion Sector: A Comparison between LVMH and Kering. *Modern Economy*, *13*(3), 356-369. https://doi.org/10.4236/me.2022.133020.

Fleischmann, M. (2019, September 23). *How Much Do Our Wardrobes Cost to the Environment?* World Bank. Retrieved June 10, 2023, from https://www.worldbank.org/en/news/feature/2019/09/23/costo-moda-medio-ambiente.

Franco, J. C., Hussain, D., & McColl, R. (2019). Luxury fashion and sustainability: looking good together. *Journal of Business Strategy*, *41*(4), 55-61. https://doi.org/10.1108/JBS-05-2019-0089.

Gershoff, A. D., & Frels, J. K. (2015). What Makes It Green? The Role of Centrality of Green Attributes in Evaluations of the Greenness of Products. *Journal of Marketing*, *79*(1), 97-110. https://doi.org/10.1509/jm.13.0303.

Grazzini, L., Acuti, D., & Aiello, G. (2021). Solving the puzzle of sustainable fashion consumption: The role of consumers' implicit attitudes and perceived warmth. *Journal of Cleaner Production*, *287*. https://doi.org/10.1016/j.jclepro.2020.125579.

Hair, J. F., Babin, B. J., & Black, W. C. (2010). *Multivariate Data Analysis: A Global Perspective* (7th ed.). Pearson.

Hamzaoui-Essoussi, L., & Linton, J. D. (2014). Offering branded remanufactured/recycled products: at what price? *Journal of Remanufacturing*, *4*(9). http://doi.org/10.1186/s13243-014-0009-9.

Hein, N. (2022). Factors Influencing the Purchase Intention for Recycled Products: Integrating Perceived Risk into Value-Belief-Norm Theory. *Sustainability*, *14*. https://doi.org/10.3390/ su14073877.

Huang, Y.-C., Yang, M., & Wang, Y.-C. (2014). Effects of green brand on green purchase intention. *Marketing Intelligence & Planning, 32*(3), 250-268. https://doi.org/10.1108/MIP-10-2012-0105.

Jaswani, S. (2022). *The impact of luxury fashion on the environment.* HOLR. https://holrmagazine.com/the-impact-of-luxury-fashion-on-the-environment/?fbclid=IwAR2BL0A8iHJxPIzwHDZ6eXzozDARP1ScrTdKnboLvM YjhN7nZSKNoiMBdI8.

Jay, P. (2020, March 11). *Luxury's Hidden Indian Supply Chain.* The New York Times. Retrieved June 10, 2023, from https://www.nytimes.com/2020/03/11/style/dior-saint-laurent-indian-labor-exploitation.html.

Jung, S., & Jin, B. (2014). A theoretical investigation of slow fashion: sustainable future of the apparel industry. *International Journal of Consumer Studies, 38*(5), 510-519. http://doi.org/10.1111/ijcs.12127.

Kapferer, J.-N., & Michaut-Denizeau, A. (2014). Is luxury compatible with sustainability? Luxury consumers' viewpoint. *Journal of Brand Management, 21*(1), 1-22. http://doi.org/10.1057/bm.2013.19.

Keller, K. L., Apéria, T., & Georgson, M. (2011). *Strategic brand management - A European perspective* (2nd ed.). Pearson Education Limited.

Kim, S., & Lee, H. (2019). The Effect of CSR Fit and CSR Authenticity on the Brand Attitude. *Sustainability, 12*(1), 275. https://doi.org/10.3390/su12010275.

Lundblad, L., & Davies, I. A. (2015). The values and motivations behind sustainable fashion consumption. *Journal of Consumer Behaviour, 15*(2), 149–162. http://doi.org/10.1002/cb.1559.

Luo, X., & Bhattacharya, C. B. (2006). Corporate Social Responsibility, Customer Satisfaction, and Market Value. *Journal of Marketing, 70*(4), 1-18. https://doi.org/10.1509/jmkg.70.4.001.

Luxe Digital. (2023, February 22). *Sustainable Luxury: Millennials Buy Into Socially Conscious Brands*. Luxe Digital. Retrieved April 23, 2023, from https://luxe.digital/business/digital-luxury-trends/millennials-buy-sustainable-luxury/.

McDonald, S. (2018, August 17). *You Won't Believe How Much Luxury Brands Are Throwing Away*. Footwear News. Retrieved June 10, 2023, from https://footwearnews.com/business/retail/luxury-brands-burning-stock-environment-1202636530/.

Milton, L., & Astoul, E. (2023, January 3). *Squeezing Us Dry: How the Fashion Industry Pollutes Water — Sustainably Chic*. Sustainably Chic. Retrieved May 17, 2023, from https://www.sustainably-chic.com/blog/how-the-fashion-industry-pollutes-water.

Mohr, L. A., Webb, D. J., & Ellen, P. S. (2006). Building corporate associations: Consumer attributions for corporate socially responsible programs. *Journal of the Academy of Marketing Science*, *34*, 147-157. https://doi.org/10.1177/0092070305284976.

Mok, A., Yu, H., & Zihayat, M. (2022). The trends of sustainability in the luxury fashion industry: A Triple Bottom Line analysis. *Journal of Global Fashion Marketing*, *13*(4), 360-379. https://doi.org/10.1080/20932685.2022.2085601.

Niinimäki, K. (2010). Eco-clothing, consumer identity and ideology. *Sustainable development*, *18*(3), 150-162. https://doi.org/10.1002/sd.455.

Olšanova, K., Ríos, A. E., Cook, G., Kral, P., & Zlatic, M. (2022). Impact of the awareness of brand-related CSR activities on purchase intention for luxury brands. *Social Responsibility Journal*, *18*(3), 597-618. http://doi.org/10.1108/SRJ-10-2020-0398.

Olsen, M. C., Slotegraaf, R. J., & Chandukala, S. R. (2014). Green Claims and Message Frames: How Green New Products Change Brand Attitude. *Journal of Marketing*, *78*(5), 119-137. https://doi.org/10.1509/jm.13.0387.

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.

Pedersen, E., & Andersen, K. (2015). Sustainability innovators and anchor draggers: a global expert study on sustainable fashion. *Journal of Fashion Marketing and Management*, *19*(3), 315-327. https://doi.org/10.1108/JFMM-08-2014-0059.

Pedersen, E., Andersen, K., & Earley, R. (2019). From singular to plural: exploring organisational complexities and circular business model design. *Journal of Fashion Marketing and Management*, *23*(3), 308-326. https://doi.org/10.1108/JFMM-04-2018-0062.

Perry, C., & Wright, H. (2022, July 8). *7 Sustainable Luxury Designers Disrupting The Fashion Industry*. The Good Trade. Retrieved May 30, 2023, from https://www.thegoodtrade.com/features/luxury-eco-friendly-designers/.

Prasad, M., Mishra, T., & Bapat, V. (2019). Corporate social responsibility and environmental sustainability: Evidence from India using energy intensity as an indicator of environmental sustainability. *IIMB Management Review*, *31*(4), 374-384. https://doi.org/10.1016/j.iimb.2019.07.014.

Reichart, E., Drew, D., & Merrity, P. (2019, January 10). *By the Numbers: The Economic, Social and Environmental Impacts of "Fast Fashion"*. World Resources Institute. Retrieved May 17, 2023, from https://www.wri.org/insights/numbers-economic-social-and-environmental-impacts-fast-fashion.

Rezende, M. L., Fernandes, L. P., & Silva, A. M. R. (2007). Utilização da análise fatorial para determinar o potencial de crescimento econonômico em uma região do sudeste do Brasil. *Revista Economia e Desenvolvimento*, *19*. https://doi.org/10.5902/141465093480

Rios, F. J. M., & Martínez, T. L. (2006). Improving attitudes toward brands with environmental associations: An experimental approach. *Journal of Consumer Marketing*, *23*(1), 26. http://doi.org/10.1108/07363760610641136.

Sahlqvist, S., Song, Y., Bull, F., Adams, E., Preston, J., & Ogilvie, D. (2011). Effect of questionnaire length, personalisation and reminder type on response rate to a complex postal survey: Randomised controlled trial. *BMC Medical Research Methodology*, *11*. http://doi.org/10.1186/1471-2288-11-62.

Sen, S., & Bhattacharya, C. B. (2001). Does Doing Good Always Lead to Doing Better? Consumer Reactions to Corporate Social Responsibility. *Journal of Marketing Research*, *38*(2), 225-243. https://doi.org/10.1509/jmkr.38.2.225.18838.

Şener, T., Bişkin, F., & Dündar, N. (2023). The effects of perceived value, environmental concern and attitude on recycled fashion consumption. *Journal of Fashion Marketing and Management*, *27*(4), 595-611. https://doi.org/10.1108/JFMM-01-2021-0003.

Sharma, H. (2022). How short or long should be a questionnaire for any research? Researchers dilemma in deciding the appropriate questionnaire length. *Saudi Journal of Anesthesia*, *16*(1), 65-68. http://doi.org/10.4103/sja.sja_163_21.

Smith, P. (2022, December 1). *Challenges & opportunities for fashion brands 2023*. Statista. Retrieved May 16, 2023, from https://www.statista.com/statistics/1298314/challenges-opportunities-fashion-retail-brands-global/.

Statista. (2022, February 25). *Luxury apparel market value worldwide 2020-2031*. Statista. Retrieved May 16, 2023, from https://www.statista.com/statistics/941156/luxury-apparels-market-value-worldwide/.

Steinhart, Y., Ayalon, O., & Puterman, H. (2013). The effect of an environmental claim on consumers' perceptions about luxury and utilitarian products. *Journal of Cleaner Production*, *53*, 277-286. https://doi.org/10.1016/j.jclepro.2013.04.024.

Sudbury-Riley, L., & Kohlbacher, F. (2016). Ethically minded consumer behavior: Scale review, development, and validation. *Journal of Business Research*, *69*(8), 2697–2710. http://dx.doi.org/10.1016/j.jbusres.2015.11.005.

Taber, K. S. (2018). The Use of Cronbach's Alpha When Developing and Reporting Research Instruments in Science Education. *Research in Science Education*, *48*, 1273–1296. https://doi.org/10.1007/s11165-016-9602-2.

Tang, Y., Ma, Y., Wong, C. W.Y., & Miao, X. (2018). Evolution of Government Policies on Guiding Corporate Social Responsibility in China. *Sustainability*, *10*(3), 741. https://doi.org/10.3390/su10030741.

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education*, *2*, 53-55. https://doi.org/10.5116%2Fijme.4dfb.8dfd.

This is Plastics. (n.d.). *High Fashion Brands Are Creating Luxury With Recycled Plastic*. This is Plastics. Retrieved April 27, 2023, from https://thisisplastics.com/innovation/high-fashion-brands-are-creating-luxury-with-recycled-plastic/.

Todeschini, B. V., Cortimiglia, M. N., Callegaro-de-Menezes, D., & Ghezzi, A. (2017). Innovative and sustainable business models in the fashion industry: Entrepreneurial drivers, opportunities, and challenges. *Business Horizons*, *60*(6), 759-770. https://doi.org/10.1016/j.bushor.2017.07.003.

Turker, D., & Altuntas, C. (2014). Sustainable supply chain management in the fast fashion industry: An analysis of corporate reports. *European Management Journal*, *32*, 837–849. http://dx.doi.org/10.1016/j.emj.2014.02.001.

UNEP. (2022, June). *UN Alliance For Sustainable Fashion addresses damage of 'fast fashion'*. UNEP. Retrieved June 10, 2023, from https://www.unep.org/news-and-stories/press-release/un-alliance-sustainable-fashion-addresses-damage-fast-fashion.

UNFCCC. (n.d.). *About the Fashion Industry Charter for Climate Action*. UNFCCC. Retrieved May 16, 2023, from https://unfccc.int/climate-action/sectoral-engagement/global-climate-action-in-fashion/about-the-fashion-industry-charter-for-climate-action.

Van Marrewijk, M. (2003). Concepts and Definitions of CSR and Corporate Sustainability: Between Agency and Communion. *Journal of Business Ethics*, *42*(2), 95-105. https://doi.org/10.1023/A:1023331212247.

Wang, Y., & Hazen, B. T. (2015). Consumer product knowledge and intention to purchase remanufactured products. *International Journal of Production Economics*. http://dx.doi.org/10.1016/j.ijpe.2015.08.031.

Wang, Y. M., Zaman, H. M. F., & Alvi, A. K. (2022). Linkage of Green Brand Positioning and Green Customer Value With Green Purchase Intention: The Mediating and Moderating Role of Attitude Toward Green Brand and Green Trust. *SAGE Open*, *12*(2). http://doi.org/10.1177/21582440221102441.

Winston, A. (2016). *Luxury Brands Can No Longer Ignore Sustainability*. Harvard Business Review.

Wong, J. Y., & Dhanesh, G. S. (2017). Communicating Corporate Social Responsibility (CSR) in the Luxury Industry: Managing CSR–Luxury Paradox Online Through Acceptance Strategies of Coexistence and Convergence. *Management Communication Quarterly*, *31*(1), 88-112. https://doi.org/10.1177/0893318916669602.

Yan, R.-N., Ogle, J. P., & Hyllegard, K. H. (2010). The impact of message appeal and message source on Gen Y consumers' attitudes and purchase intentions toward American Apparel. *Journal of Marketing Communications*, *16*(4), 203-224. https://doi.org/10.1080/13527260902863221.

Zhao, H., Yao, X., Liu, Z., & Yang, Q. (2021). Impact of Pricing and Product Information on Consumer Buying Behavior With Customer Satisfaction in a Mediating Role. *Frontiers in Psychology*, *12*. https://doi.org/10.3389/fpsyg.2021.720151.

Annex 1.

Sustentabilidade em marcas de moda de luxo

O presente questionário surge no âmbito de uma dissertação do Mestrado em Gestão
da Faculdade de Economia da Universidade do Porto. O seu principal objetivo é compreender qual o impacto que a sustentabilidade pode ter no modelo de negócio de uma marca de luxo, do ponto de vista do consumidor. Para o efeito deste questionário, considere que o contexto presente é o mercado de moda de luxo, e que por moda entende-se roupa, calçado, malas e acessórios. A resposta ao questionário demorará entre 2 a 3 minutos.

Note que todas as respostas são anónimas e os resultados serão tratados exclusivamente em contexto académico. Caso surja alguma dúvida referente ao presente questionário, ou à investigação no geral, encontramo-nos ao dispor para qualquer esclarecimento adicional: up202102602@up.pt.
Agradeço, desde já, pela disponibilidade e cooperação,
Maria Inês Sardo

Secção I.

Idade

Qual o género com o qual se identifica?

Feminino

Masculino

Outro

Qual a situação que melhor o(a) descreve?

Estudante

Trabalhador (a)

Desempregado

Outra

Secção II.

De um modo geral, interesso-me por produtos de moda de luxo reciclados.

Quando confrontado/a com a escolha entre um produto de moda de luxo reciclado e um produto de moda de luxo feito com materiais convencionais, tipicamente escolho a opção de produto reciclado.

Pagaria mais por um produto de moda de luxo feito com materiais reciclados do que por um produto feito com materiais convencionais.

Secção III.

Alteraria a minha escolha por produtos de moda de luxo feitos com tecidos orgânicos, por razões ecológicas.

Evitaria comprar um produto de moda de luxo por ter efeitos potencialmente nocivos para o ambiente.

Se tiver de escolher entre 2 produtos de moda de luxo equivalentes, estou disponível para comprar o que é menos prejudicial para o ambiente.

Secção IV.

Sei seleccionar produtos de moda de luxo e embalagens que reduzem a quantidade de desperdícios.

Eu aprecio se uma marca fizer esforços para alocar recursos para providenciar serviços compatíveis com o meio ambiente.

Estou pronto para boicotar uma empresa que não obedeça aos regulamentos sociais e ambientais.

Valorizo os esforços ambientais de uma marca de moda de luxo comparativamente à ausência de esforços das marcas concorrentes.

Secção V.

É importante para mim se a marca X de moda de luxo está comprometida com os princípios éticos estabelecidos

Valorizo se uma marca de moda de luxo está a tentar fazer doações financeiras a causas sociais.

Preocupo-me com as condições de quem trabalha para as marcas quando faço compras de moda de luxo.

Secção VI.

Faço um esforço especial por comprar produtos de moda de luxo feitos a partir de materiais reciclados, biodegradáveis ou biomateriais.

Faço um esforço especial por comprar produtos de moda de luxo feitos a partir de tecidos orgânicos, como algodão orgânico.

Não comprarei um produto de moda de luxo se souber que a empresa que o vende é socialmente irresponsável.

Não comprarei produtos de moda de luxo se souber que a marca utiliza mão de obra clandestina, trabalho infantil, ou outras condições de trabalho precárias.

Tenho pago mais por produtos de moda de luxo socialmente responsáveis quando existe uma alternativa mais barata.