A Work Project, presented as part of the requirements for the Award of a Master's degree in Management from the Nova School of Business and Economics.

The decisive factors during consumers' purchase process

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Abstract

Sustainability has been a very active topic in the fashion industry over the past few years. The swimwear industry in Portugal has been growing fast, and sustainability is also very present, especially when it comes to fabric sourcing. This research analyses consumer behaviour, awareness, perceptions, and preferences regarding sustainability in the Portuguese swimwear market. The methodology encompassed interviews, a perceptual map analysis via survey and a comprehensive conjoint analysis. Specifically, Cantê, Latitid, 38 Graus and Conscious the Label were the swimwear Portuguese brands selected for perceptual analysis. Further inquiry was directed at 38 Graus and Conscious the Label for a comparative study of their sustainability approaches and strategies.

The findings indicate that consumers are still unaware of the sustainability efforts made by swimwear brands; therefore, it might be advantageous for 38 Graus and Conscious the Label to reevaluate and adjust their current communication strategies in order to have a more significant influence on the industry's players. This study emphasises how important it is for companies to reach out to more people to increase customer awareness and appreciation for sustainability efforts in the swimwear industry.

Keywords: Sustainability, Swimwear, Perceptions, Greenwashing.

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1. Introduction

1.1. Context

The Portuguese swimwear market fits into the dynamic landscape of the country's fashion industry, a landscape that expertly blends local traditions with global influences. At its heart, this industry represents the marriage of time-honoured craftsmanship and modern design sensibilities (Moda Portugal, n.d.).

Sustainability has emerged as a pivotal theme in Portugal's fashion narrative, mirroring the global fashion discourse. The growing awareness of the environmental and ethical implications of fast fashion has resulted in a significant shift towards more responsible practices. Consumers wield significant power in this paradigm, demanding transparency, and environmentally conscious solutions (BCG, Global Fashion Agenda, and Sustainable Apparel Coalition 2019).

Indeed, this trend toward sustainability is spreading its roots into the field of swimwear, which presents its own set of unique challenges. Portuguese swimwear companies are actively looking for ways to align themselves with the larger sustainability narrative. This entails investigating new materials and ethical manufacturing methods (Laster 2021).

While the fashion sustainability movement has global roots, certain countries have emerged as trailblazers, providing valuable insights into effective strategies and policies (BCG, Global Fashion Agenda, and Sustainable Apparel Coalition 2019). Portugal is also actively involved in this journey, with the government launching initiatives, encouraging industry collaboration, and raising consumer awareness.

Overall, the country's distinct cultural and environmental context has a significant impact on fashion trends, particularly in swimwear. In fact, the historical and cultural ties that unite Portugal and Brazil have a significant impact on fashion preferences in both countries. As Portugal navigates the intersection of fashion, sustainability, and cultural influences, it charts its course toward a transformed fashion landscape, attempting to reconcile style, ethics, and environmental responsibility (BCG, Global Fashion Agenda, and Sustainable Apparel Coalition 2019).

On one hand, for example, the vibrant and dynamic designs of 38 Graus are well-known. Through its swimwear collections, the brand is known for capturing the essence of Portuguese beach culture. 38 Graus offers a variety of products that cater to a diverse clientele looking for both aesthetic appeal and functionality in their swimwear, with a focus on contemporary styles (38 Graus, n.d.).

In contrast, Conscious the lLbel prioritizes sustainability in its business model. The brand's environmental commitment is evident in its materials and manufacturing processes. The brand incorporates environmentally friendly practices into its operations, such as the use of sustainable fabrics and ethical manufacturing techniques. Their collections are not only fashionable but also environmentally conscious, appealing to consumers who are becoming increasingly conscious of the impact of their fashion choices (Conscious the Label, n.d.).

In conclusion, the Portuguese swimwear market reflects the country's broader transformational journey as it seeks to balance style, ethics, and environmental stewardship. This evolution represents a convergence of fashion, sustainability, and cultural influences, with Portugal at the forefront of change.

1.2. Problem Definition and Research Questions

This Work Project aims to assess the perceptions and preferences of Portuguese consumers towards sustainable swimwear and understand how these preferences align with their purchasing behaviours and environmental consciousness. Additionally, it aims to uncover potential barriers to adopting sustainable swimwear and explore strategies for effectively communicating the environmental benefits of sustainable swimwear to consumers. Therefore, four main research questions will be addressed, namely:

RQ1. Are consumers aware of sustainability practices in the Portuguese swimwear market?

RQ2. Is sustainability a relevant factor in the consumer purchase decision of a swimwear piece?

RQ3. Are consumers willing to spend more on sustainable swimwear?

RQ4. Specifically, by exploring the cases of 38 Graus and Conscious the Label, how aligned are the brand's positioning and communication strategies with consumer perceptions regarding sustainability?

1.3. Work Project Overview

The work project focuses on comprehensively understanding Portuguese consumers' preferences and perceptions of sustainable swimwear, and its chapters are strategically organized to provide a coherent examination of diverse aspects. After providing a brief introduction that sets objectives and research questions, this project will explore the conceptual background of the swimwear market in Portugal and understand the emerging eco-friendly trends. Subsequently, the literature review chapter synthesizes existing scholarly work and industry insights related to sustainable swimwear. These two chapters enable comparisons between earlier findings and the information gathered in the sections that follow. An explanation of the methodology used, including the specific research measures used to address the study topics, follows this section. The results are the focus of the following chapter, which begins with the findings from the expert and consumer interviews. The chapter also explains the use of conjoint analysis and perceptual mapping, as well as the results of these methods. The discussion chapter will then assist in addressing the research questions and comparing the results with the previous findings of the contextual background and the literature review. The following section dives into the phenomenon of greenwashing within the context of sustainable swimwear. Finally, in the last chapter, the limitations encountered during the research process are addressed, and recommendations for future studies are provided.

2. Background

2.1. Swimwear Market in Portugal

The Portuguese swimwear market exemplifies the country's fashion industry's blend of local tradition and global influence, with a strong emphasis on the integration of traditional craftsmanship and contemporary design (BCG, Global Fashion Agenda, and Sustainable Apparel Coalition 2019; Moda Portugal, n.d.).

Consumer demands for environmentally responsible practices have pushed sustainability to the forefront. This trend extends to swimwear, where Portuguese brands are experimenting with sustainable materials and ethical manufacturing methods.

In essence, Portugal's swimwear market reflects the country's commitment to merging style, ethics, and ecological responsibility, putting it at the forefront of the global fashion sustainability movement (Girão, 2020).

2.1.1. Market Size and Growth

The market for swimwear in Portugal can be considered large. According to 2023 statistics, the Sports and swimwear market, which includes bikinis, generated an impressive US$292.10 million in revenue (Statista 2023). This figure emphasizes the market's importance within the larger fashion and apparel industry.

The consistent growth trajectory of the Portuguese swimwear market is one of the most promising aspects of the market. It is expected to grow at a 6.73% annual rate (CAGR 2023-

2028) (Statista 2023) This consistent growth indicates that swimwear products, including bikinis, are in high demand in the Portuguese consumer landscape.

Aside from revenue growth, the sports and swimwear market is expected to reach approximately 9.5 million pieces by 2028 (Statista 2023) This increase in volume indicates that consumers in Portugal continue to seek swimwear items, creating numerous opportunities for brands to gain market share.

The digital realm is also important for the growth prospects of Portuguese bikini brands. The Portuguese e-commerce market for sports and swimwear is expected to reach $31.5 million by 2023 (Statista 2023). Notably, this segment accounts for a sizable 28.7% of the Portuguese Sports and Outdoor e-commerce market (Statista 2023). This emphasizes the significance of developing a strong online presence and effective e-commerce strategies for bikini brands seeking to thrive in the market.

Understanding Portuguese consumers' changing preferences is critical for brand success. Brands that can adapt to the changing tastes and preferences of the Portuguese population will gain a competitive advantage. This could include keeping up with design trends, materials, and sustainability concerns, all of which are becoming increasingly important to modern consumers.

While the domestic market is strong, expanding into international markets may provide some growth opportunities. Portuguese bikini brands could consider exporting their products to regions with similar climates and beach cultures, leveraging Portuguese design and craftsmanship's global appeal.

In this context, the Ansoff Matrix is a useful tool for analysing market growth strategies. It provides a structured approach for brands to consider market expansion and product development options, allowing them to tailor their strategies to their specific circumstances and risk tolerance. The matrix promotes market research, product innovation, and strategic planning, ultimately assisting brands in gaining a competitive advantage and planning for long-term viability in a dynamic and competitive industry (Peterdy, n.d.; Ansoff Matrix, n.d.)

Market penetration in the Portuguese bikini market entails expanding the brand's current market presence. While the market may be saturated with established competitors, there is still room for growth. This can be accomplished through the execution of targeted marketing campaigns, the enhancement of customer loyalty programs, and strategic collaboration with local retailers. The primary goal here is to keep and nurture existing customers while attracting a larger share of the market's current consumer base.

This strategy has the advantage of leveraging the brand's existing recognition and customer relationships. Nonetheless, it is critical to recognize the challenges posed by stiff competition and limited room for growth within the same market.

Entering new geographical markets is a strategic path for growth, especially since Portugal remains a strong market. International expansion exposes the brand to new customer segments while necessitating a thorough understanding of the preferences and cultural nuances of these new markets. Meanwhile, working with local distributors and retailers is critical for a smooth market entry.

This strategy diversifies revenue streams and reduces reliance on a single market by providing access to new customer segments with diverse preferences. It does, however, necessitate extensive market research and the ability to overcome potential logistical challenges when entering new international markets.

Furthermore, incorporating new swimwear products or variations tailored to changing customer needs in the Portuguese market is an innovative growth strategy. Extensive market research is essential for identifying emerging swimwear trends and changing consumer preferences, but collaborations with well-known designers or influential figures have the potential to produce exclusive collections that appeal to a specific audience.

This approach is advantageous because it addresses changing customer preferences while keeping the brand relevant. Through innovative offerings, it increases brand appeal and differentiates the brand from competitors. On the other hand, it requires a significant investment in research and development and frequently involves product innovation competition.

Exploring completely new markets or complementary product lines is a risky strategic move. Diversification benefits from entering markets with distinct cultures and preferences, but it requires thorough research to identify appropriate markets and products. The gradual expansion into these new markets reduces the risks associated with diversification.

Diversification is an opportunity to reduce reliance on a single market or product while also opening new revenue streams and opportunities for growth. However, it carries a higher risk because new markets or products are unfamiliar.

In conclusion, the Portuguese swimwear market has significant growth potential because of consistent revenue growth, volume expansion, the influence of e-commerce, and changing consumer preferences. Strategic positioning, innovation, and a keen understanding of market dynamics will be critical for Portuguese brands in capitalizing on these growth prospects and solidifying their presence in the competitive swimwear landscape. In order to navigate this dynamic and competitive environment, the brand's future strategy should be aligned with its objectives, capabilities, and risk tolerance.

2.1.2. Competitive Landscape

Examining the competitive landscape of the Portuguese swimwear market reveals a diverse range of brands that cater to consumer preferences and demands. Domestic and international players alike contribute to the industry's dynamic nature.

Conscious the Label is a Portuguese eco-friendly swimwear brand that stands out for its ethical practices and dedication to sustainability. Their swimwear is carefully designed, ethically sewn in a Lisbon atelier, and made from recycled fabrics derived from ocean waste plastic. The brand exemplifies the trend towards environmental consciousness among Portuguese swimwear brands (Conscious the Label, n.d.).

Furthermore, with its environmentally friendly approach, the brand 38 Graus has made a significant impact. By using sustainable materials and ethical manufacturing practices, 38 Graus sets a standard for environmental responsibility in the fashion industry. Their commitment to sustainability extends beyond the products; they also participate in ocean conservation and carbon footprint reduction initiatives. This approach not only appeals to environmentally conscious consumers but also inspires other Portuguese brands to follow suit (38 Graus, n.d.).

Aside from these national brands, that present themselves as having a positive impact on the environment, others quickly come to mind as influential players. Firstly, Cantê's products are (Cantê, n.d.) known for their exclusive designs, exploring details, patterns, and colours uniquely. This creativity has helped the brand stand out in a competitive market, as it evolved from merely a swimwear brand into a lifestyle brand, offering a range of products that go beyond traditional swimwear. Additionally, Latitid's collections are inspired by different cosmopolitan cities, infusing global culture and fashion trends into swimwear. By emphasizing high-quality materials sourced from Italy and local production in Portugal, it ensures premium quality and durability in its products, appealing to consumers who value craftsmanship (Latitid, n.d.)

Both these brands' strong market presence in the Portuguese swimwear industry can be attributed to their diverse qualities. In fact, their distinct design approaches, high-quality production, diverse product lines, and environmentally friendly practices, as well as their ability to connect with their audience through innovative designs and lifestyle branding have cemented their positions as market leaders (Latitid, n.d.; Cantê, n.d.).

In summary, the Portuguese swimwear market is rich and diverse with brands with a growing emphasis on sustainability. While specific non-sustainable brands may not be named, the industry is shifting significantly towards eco-conscious practices in response to changing consumer preferences and growing awareness of environmental concerns. This diverse landscape emphasizes Portugal's pivotal role in the global swimwear market.

With sustainability as a critical factor in this analysis, it is clear that brands focusing on eco-friendly practices help to reduce the threat of substitute products and improve their bargaining power with environmentally conscious buyers. The competitive landscape, supplier dynamics, and buyer preferences all influence the level of competition in the Portuguese swimwear market.

Overall, the competitive landscape of the Portuguese swimwear market and the emphasis on sustainability influence the dynamics of Porter's Five Forces within the industry. Brands that effectively position themselves concerning these forces can navigate the competitive landscape more effectively and improve their market position (Porter 1979).

With the proliferation of online platforms, the swimwear market may present a relatively low barrier to entry for new players. This ease of access enables newcomers to enter the market with relative ease. Established brands, on the other hand, may benefit from consumer brand loyalty. This loyalty can make it difficult for new entrants to gain traction and market share. Furthermore, existing swimwear brands may have achieved economies of scale in their manufacturing processes. Because of their efficiency, they can produce at lower costs, potentially discouraging new entrants from competing on price.

Buyers in the swimwear market frequently have a wide range of options, which increases their bargaining power. The abundance of available options enables them to be astute consumers. Furthermore, the low switching costs make it critical for brands to meet buyer expectations consistently. The internet has ushered in an era of well-informed consumers with access to a wealth of information about products and brands. This educated consumer base can be more demanding and selective in purchasing decisions.

Swimwear market suppliers may have varying degrees of bargaining power. If there are only a few suppliers of high-quality swimwear fabric, they may have more bargaining power than bikini manufacturers. Switching suppliers in the bikini industry may incur significant costs or pose quality variation risks, potentially giving suppliers more leverage. Furthermore, suppliers with exclusive agreements with influential swimwear brands can command higher bargaining power due to their strategic alliances.

Alternative swimwear styles, such as one-piece suits, board shorts, or resort wear, could be substitute products in the bikini market. These alternatives cater to customers looking for a variety of beachwear options. Furthermore, casual wear or beach cover-ups can replace traditional swimwear, providing versatility and comfort. The ever-changing fashion trends landscape can influence consumer preferences and lead to shifts away from traditional swimwear styles, potentially driving demand for substitute clothing items.

The bikini market is likely crowded, with both domestic and international brands competing. This plethora of players contributes to fierce competition. Fashion trends change constantly and quickly in the industry. This dynamism heightens competition as brands compete for consumer attention by anticipating or adapting to emerging trends. Furthermore, brands in the bikini market invest heavily in marketing and differentiation strategies to stand out in a crowded marketplace. It is critical to create a distinct brand identity and offer distinctive products.

Finally, the analysis conducted using Porter's Five Forces framework, and its respective strengths (Appendix 1), indicates that the bikini market has a medium to high level of competition. The industry dynamics are influenced by factors such as the constant evolution of fashion, the presence of numerous competitors, and the considerable bargaining power of buyers. To succeed in this competitive market, businesses must focus on differentiation, cultivate brand loyalty, and stay abreast of consumer preferences and industry trends (Harvard

Business School, n.d.). Furthermore, developing strong supplier relationships and managing the threat of substitute products are critical aspects of bikini market strategic planning.

2.1.3. Marketing and Promotion

The bikini market is a dynamic and highly competitive segment within the more significant fashion industry. Bikini brands' success depends on effectively engaging consumers through strategic marketing and promotion efforts (Twin 2023).

At the heart of the bikini industry is the concept of product. This dimension includes the wide variety of bikini options available to consumers. Bikini brands compete in a highly competitive market where innovation and design are essential. They constantly strive to meet consumers' ever-changing preferences by creating products that vary in style, colour, materials, and functionality. The ability to cater to specific consumer needs and tastes is critical to success in this industry (Twin 2023).

Bikini product development is heavily reliant on a thorough understanding of consumer demographics. Age, gender, location, and lifestyle are all factors that brands use to segment their target audience. This segmentation informs product development and marketing strategies, resulting in the development of specific bikini lines tailored to various consumer groups. Brands, for example, create trendy and vibrant bikinis to appeal to teenagers while providing elegant and sophisticated options to more mature consumers.

Brands use a strategic mix of traditional and digital marketing channels to promote their bikini products effectively. While traditional methods such as print catalogues and in-store displays are still helpful, digital platforms have become the primary means of displaying the breadth and depth of product variety. Brands use websites, social media platforms, and e-commerce platforms to present their products visually compellingly, creating a seamless shopping experience for consumers.

The price dimension is responsible for determining the best pricing strategy for bikini products. Brands consider various factors, such as consumer affordability, perceived value, and competitive positioning.

Pricing strategies are meticulously aligned with the target consumer base's disposable income. Luxury bikini brands strategically position themselves at higher price points, aiming to attract high-income individuals who value premium quality and exclusive designs. On the other hand, other brands cater to price-conscious customers by providing budget-friendly options that offer excellent value without sacrificing quality. These strategies are founded on a knowledge of consumer demographics and their willingness to pay for specific features and levels of quality. Indeed, pricing strategy communication requires a variety of tactics. Pricing tags, discounts, and promotional events are all important marketing tools. Pricing differentiation strategies may be used by brands to justify higher prices by emphasizing the quality and unique features of their bikinis. Alternatively, they may emphasize affordability by offering discounts and bundle deals, particularly during seasonal sales, to entice price-conscious customers.

The availability and distribution of bikini products to consumers is related to the place. Brands strategically position their products to align with their target consumers' lifestyles and preferences. Beachfront destinations and warmer climates are especially important when developing marketing strategies. Understanding their consumer base's geographic distribution enables brands to make informed decisions about store locations and distribution networks (Twin 2023).

Bikini products are sold through various channels, including physical stores, e-commerce websites, and pop-up shops at beach resorts. Brands use location-based marketing strategies to connect with consumers close to these distribution points. E-commerce platforms with user-friendly interfaces, virtual try-ons, and customer reviews improve the online shopping experience and are essential components of location strategies. Moreover, brands recognize that consumers seek convenience and accessibility and strategically position their products to meet these demands.

Consumer demographics are once again central to marketing strategies. It is critical to understand consumer online behaviour, preferences, and habits. With their digital marketing efforts, brands target specific demographic groups and online behaviours. These tailored strategies ensure that marketing initiatives reach and engage the intended audience.

The cornerstone of swimwear market promotion is digital marketing, mainly social media advertising. Brands showcase their products through visually appealing content on platforms such as Instagram, Facebook, and Pinterest. High-quality imagery, videos, and user-generated content contribute to brand identity and consumer interest. Through video marketing, brands create promotional videos and tutorials to engage and inform consumers.

Influencer partnerships have emerged as a powerful force in swimwear product promotion. Influencers hold considerable power over their devoted followers, and brands recognize the value of aligning with influencers who speak to their target demographics. By sharing their personal experiences and endorsing brands through captivating content, influencers become powerful voices in promoting bikini products (Business Wire 2021).

Content marketing is another aspect of promotion. Brands create valuable content, such as blog posts on swimwear trends, care guides, and body positivity messages to engage and educate consumers. This content helps build brand authority and fosters a sense of community among customers, increasing brand loyalty.

To summarize, the marketing and promotion strategies of the bikini market are a dynamic interplay of product differentiation, consumer demographics, pricing strategies, distribution channels, and digital marketing expertise. The industry's commitment to engaging consumers and building brand loyalty is demonstrated by using influencer marketing, content marketing, and targeted promotional efforts. Bikini brands that effectively use the Marketing Mix (4Ps) and adjust to changing consumer trends can gain a competitive advantage and establish a meaningful presence.

2.1.4. Global Influences

The Portuguese bikini market is influenced by an array of global factors, which collectively shape its dynamics and consumer preferences. These global factors play an essential role in determining market direction, influencing business strategies, and defining industry trends (McKinsey & Company 2023).

The ever-changing international fashion trends have a significant global influence on the Portuguese bikini market. Fashion capitals worldwide, such as Paris, Milan, and New York, set the tone for emerging styles and design aesthetics. To cater to fashion-conscious consumers, Portuguese bikini brands closely monitor global fashion trends and incorporate them into their collections. When retro-inspired swimwear becomes popular on international runways, Portuguese brands quickly adapt their offerings to meet these global fashion tastes (McKinsey & Company 2023).

The rise of social media and influencer culture has also had a lasting impact on the Portuguese bikini market. Instagram, in particular, has become the primary platform for brands to showcase their swimwear collections to a global audience. Local and international influencers are critical in introducing international fashion trends to Portuguese consumers. This fosters a sense of global connectivity as Portuguese consumers interact with global influencers and trends (Business Wire 2021).

Another global influence that significantly impacts the bikini market is Portugal's reputation as a popular tourist destination. The country's beautiful beaches and coastal regions attract international tourists, many looking for swimwear and beach attire. Portuguese bikini brands understand the impact of international tourism and tailor their marketing strategies to this diverse consumer base, creating products that appeal to locals and tourists (Pinto 2022).

Global trade and interconnected supply chains are also important. Materials and components for Portuguese bikini brands are sourced from various countries, and global trade agreements and partnerships influence the availability and cost of these materials. Economic developments in key trading partners can directly impact the Portuguese bikini market's overall health (Dataintelo 2022).

Cultural exchanges and fashion collaborations between Portugal and other countries bring new design elements and styles to the market. These collaborations can result in collections that combine cultural influences, reflecting Portugal's historical and cultural ties with other countries (Centre for the Promotion of Imports 2020; BCG, Global Fashion Agenda, and Sustainable Apparel Coalition 2019).

Finally, well-known international swimwear brands are a constant presence in the Portuguese market. These global competitors enter Portugal, providing consumers with a diverse range of options and setting industry standards. To compete in both the domestic and international markets, Portuguese brands must constantly innovate and adapt (Centre for the Promotion of Imports 2020).

Finally, the Portuguese bikini market is intricately linked to global influences ranging from fashion trends to sustainability movements, social media, tourism, trade, and cultural exchanges. These influences put Portuguese brands under pressure to stay agile, embrace sustainability, and keep up with international developments while retaining their distinct identity in the global swimwear landscape. The ability to strike a balance between local tradition and global trends is critical to the Portuguese bikini market's success.

2.1.5. Challenges to Manufacture in Portugal

When analysing the challenges in the bikini market, a SWOT analysis provides valuable insights into the industry's dynamics and areas requiring strategic attention (White and Bottorff 2022).

The swimwear market has several advantages that contribute to its overall popularity. Among these, design innovation stands out prominently. Bikini brands consistently demonstrate a talent for creating distinctive and visually appealing swimwear styles that appeal to customers. This natural ability to stay ahead of fashion trends and offer innovative designs adds to the industry's allure (McKinsey & Company 2023).

Moreover, the market has a high level of brand diversity. It includes a diverse range of brands, from high-end labels to low-cost options. This variety translates into a wide range of options for consumers, ensuring that there is a bikini brand to suit every taste and preference (Dataintelo 2022).

Another significant strength in the bikini market is digital marketing. Brands have successfully leveraged the power of online platforms, mainly social media, to broaden their reach and increase brand awareness. Bikini brands effectively connect with a large and diverse audience by leveraging visually compelling content and engaging influencers.

While the bikini market has many advantages, it also has some disadvantages. Material sourcing is one of the most difficult challenges. In recent years, there has been a surge in demand for sustainable and eco-friendly materials. However, these materials can be in short supply, making it difficult to find a consistent source. As a result, production bottlenecks can occur, preventing brands from fully embracing sustainability (Laster 2021).

Furthermore, minimum order quantities imposed by factories are another significant weakness, particularly for small businesses in the bikini market. The high minimum order requirements can be a significant barrier for smaller brands looking to diversify their product offering or quickly adapt to changing consumer preferences.

Additionally, the market is affected by seasonal demand patterns, with peak sales occurring during the summer season. Managing inventory and cash flow during off-peak periods is a significant challenge that brands must carefully plan to navigate (Dataintelo 2022).

The bikini market offers promising opportunities for forward-thinking brands. Among these is the growing demand for environmentally friendly swimwear. Consumers are becoming more environmentally conscious, and there can be a preference for swimwear made from environmentally friendly materials. Brands that embrace sustainability and environmentally friendly practices can distinguish themselves and align with this growing consumer preference (Girão 2020).

Another avenue with enormous potential is customization. Allowing customers to customize their bikinis in terms of design, fit, or materials creates a distinct selling point. Brands can use technology to enable customization options, resulting in a stronger connection with their customer base (Girão 2020).

Increasing online sales channels is a strategic opportunity. E-commerce continues to grow rapidly, and bikini brands can capitalize on this trend to reach a global audience. Online sales not only provide greater market access but also reduce reliance on physical retail, which is especially important during difficult times (Business Wire 2021).

The bikini market is facing several threats that must be carefully considered. The fierce competition within the industry is the most serious of these threats. With so many brands competing for consumer attention, standing out in a crowded market can be a daunting task. To maintain a competitive advantage, brands must constantly innovate and differentiate themselves.

The fast fashion industry is a significant threat. Fast fashion brands can flood the market with low-cost swimwear due to their rapid production and distribution capabilities. Price-conscious consumers may choose cheaper alternatives, undermining brands that prioritize quality, sustainability, and ethical practices.

Also, global events and supply chain disruptions, such as the COVID-19 pandemic, pose another significant threat. Such disruptions can have an impact on material sourcing, manufacturing, and distribution, resulting in delays and supply shortages.

Finally, the bikini market demonstrates notable strengths in design innovation, brand diversity, and digital marketing proficiency. However, material sourcing, minimum order quantities, and seasonality continue to be issues. Brands can capitalize on opportunities in sustainability, customization, and online sales while remaining vigilant in the face of threats such as competition, fast fashion, and supply chain disruptions. Effectively adapting and strategizing in response to these SWOT factors is critical for businesses to thrive in this dynamic and fashion-forward industry (Kenton 2023).

2.1.6. Sustainable Market

With the increased awareness and commitment to sustainability, Portuguese swimwear brands have been progressively incorporating sustainable practices and materials into their production processes, in a way to differentiate and gain a competitive advantage against the established brands.

Portuguese sustainable swimwear brands typically highlight the use of eco-friendly materials such as recycled plastics like recycled polyester, organic cotton, upcycled materials, and more sustainable fabrics like Econyl, a form of recycled nylon. In addition to more sustainable materials, these brands also tend to use a more sustainable manufacturing process, and eco-friendly practices and initiatives.

This way Portuguese brands like Conscious the Label and 38 Graus emerged, with a focus on providing the customer with high-quality and environmentally friendly products. Despite both brands being committed to sustainability, this matter is approached differently by the brands. For Conscious the Label, sustainability is the reason to exist and the core focus of the brand, while for 38 Graus, sustainability is a core value that influences the decision-making process.

2.1.6.1. Conscious the Label

Founded in 2019, Conscious the Label has rapidly positioned itself as a sustainable brand, being very vocal about its commitment to sustainability. The brand has a precise positioning: “At Conscious, we design simple & timeless pieces using recycled fabrics mainly from ocean waste plastic”, which supports their commitment to eco-friendly fashion. Moreover, the brand promises consumers high durability of its products since these are made to last.

The commitment to sustainability is instantly recognizable as Conscious the Label endures several sustainable practices. One of the strongest examples is the brand fabric choice. Conscious uses Econyl, a fabric made from regenerated nylon. This nylon is created from discarded waste from oceans and landfills worldwide, such as fishing nets, fabric scraps, and industrial plastics. It is ultimately regenerated to its original purity and can be later used to produce new products.

Regarding the manufacturing process, the brand holds strong importance in producing locally, as their products are produced in the Lisbon Atelier with a local team of seamstresses. The proximity and close relation to the team allows the brand to analyse production closely to ensure it follows the mission efficiently. Conscious concern with work ethics is evident since the brand ensures that every teammate is ethically treated and paid above minimum wage.

The concern with ethical practices extends to packaging and shipping. All boxes are as small as possible, made from recycled materials, and able to be recycled again. Inside, recycled paper tape is used instead of regular plastic tape, and all the labels are recycled and recyclable, attached to a 100 per cent biodegradable cotton rope. When shipping its products, the brand uses home-compostable bags. This way, there is no plastic involved in the process.

Conscious price reflects its commitment to sustainability. For both a top and a bottom the price lies at approximately 120€. In addition to swimwear, the brand also offers clothing items that reflect the brand’s dedication to simplicity and sustainability.

2.1.6.2. 38 Graus

The Portuguese brand 38 Graus was founded in 2017 to bring more fashion, boldness, and colour to the swimwear industry. The brand's positioning relies on delivering stylish and unique pieces to serve all types of bodies. 38 Graus' approach to design differentiates the brand as they value the mix of colours, textures, and patterns. Every pattern is hand-designed to create the most unique pieces.

The brand is committed to having the minimum impact on the environment as possible, making sustainability, together with uniqueness and timelessness, one of its core values. 38 Graus tries to select eco-friendly fabrics, such as recycled lycra. When choosing fabrics, the brand engages with manufacturers to understand if their values are aligned. Furthermore, the brand tries to find innovative ways to produce accessories to give new lives to materials that would go to waste. In addition, 38 Graus proudly produces in Portugal, supporting the local economy.

Recognizing that fashion waste is a concern, 38 Graus introduced the "2nd Life Project" to promote a more circular economy. Under this project, anyone who has previously bought a 38 Graus piece can send it back to the brand, where it is assured of its quality and good condition. After, the piece is allocated to the "second hand" selection on their website, where it gets a second chance to be bought. Ultimately, the seller receives a 30€ coupon that can be used in their next 38 Graus purchase.

The brand's pricing, around 100€ per set, reflects 38 Graus' efforts to offer unique and sustainable pieces that vary in several categories, such as swimwear, clothing, and accessories.

2.2. Emerging Trends on Eco-Friendly Swimwear

To this day, most swimsuits are made from synthetic fibers due to their performance quality that gives swimsuits stretch, durability, and resistance. Nonetheless, these fabrics significantly impact the environment due to the number of resources necessary for their production.

Synthetic fibers were created to fulfil the desire for a more mass-producible and cost-effective alternative to natural fibers. The benefits of these types of materials are undisputable, as these provide excellent elasticity, increase durability, and are often a much less costly choice (Triplett 2021). Despite the benefits, these fabrics raise several environmental concerns. Fabrics such as polyester and nylon are mainly composed of plastic. Unfortunately for our planet, plastic is not biodegradable. This way, it never decomposes. Instead, it stands in landfills and oceans, contributing to the tons of plastic already burdening the earth (Segran 2019). Another primary concern related to synthetic fibers is the release of microfibers into our oceans, which ultimately contributes to the global plastic pollution crises and harms sea life (Koraru 2022). Beyond the problem associated with the fabric itself, the dyeing process is another environmental concern. Since it can be challenging to colour synthetic fibers, manufacturers use synthetic dyes to penetrate them. These dyes are highly resistant to light and heat but, at the same time, are highly toxic to sea life and the environment (Shah 2023).

Nowadays, the swimwear industry features new trends that are not only fashionable but also environmentally friendly, going from sustainable fabrics to sustainable business concerns. These trends reflect the increasing awareness of the brands and consumers of the fashion industry's impact on the environment and mirror the commitment to make more responsible choices along the supply chain.

2.2.1. Sustainable Fabrics

Luckily, several eco-friendly fabric trends are emerging in the market. These can replace traditional synthetic fibers and provide swimsuits with the same performance quality while being much more sustainable. This way, the use of natural fibers and upcycled fibers is a leading trend in sustainable swimwear.

2.2.1.1. Natural Fibers

Hemp and organic cotton are two examples of natural fibers that have been gaining strength in the swimwear market. Despite the undeniable benefits of these fibers, there are still challenges to the use of these fabrics.

Hemp is one of the most environmentally friendly fabrics available on the market since it takes only one-quarter of the water it takes to grow cotton and produces 250 per cent more fiber (Tatham 2020). This means that Hemp is a high-yield crop, so farmers get more fiber from the same area than other crops. Despite the advantages, Hemp faces regulatory challenges. Hemp fabric comes from the stems of the cannabis plant, and while it only contains a low concentration of tetrahydrocannabinol (THC), the cause of psychoactive effects, it remains illegal to grow in many places (Venkat 2022). In order to unlock the full potential of this fiber it is critical to overcome these regulatory challenges. In turn, because organic cotton is a natural fiber grown without harmful pesticides, fertilizers or insecticides, the products will not release any toxins into the water nor will any microplastics be shed into the ocean. In addition, growing organic cotton requires much less water than growing conventional cotton Fields (BeFashionable 2023). This fiber is also hypoallergenic, ideally for sensitive skin, and the lack of chemicals prevents fiber from weakening making the products more durable. While fiber presents several advantages, there are still challenges to its production. Growing organic cotton produces a lower yield, so it requires more land to grow than conventional cotton. In addition, transitioning to organic farming and obtaining certifications is a long and costly process (Or & Zon 2023).

2.2.1.2. Upcycled Fibers

Regarding upcycled fabrics, several fibers are emerging to the market such as Econyl, recycled polyester, and Amni Soul Eco.

Econyl is a form of regenerated nylon sourced from the waste from landfills and oceans, that reduces the global warming impact of nylon as it avoids the emission of tons of carbon dioxide into the atmosphere. This material is known for its strength and durability since it is resistant to exposure to chlorine, and UV radiation. Econyl guarantees consumers its safety and compliance with strict environmental standards according to its certification by the Oeko-Tex Standard 100. However, this material still presents challenges. Econyl is highly flammable, has poor thermal stability, and is not biodegradable. Furthermore, it is often more costly than other materials due to the expense of treating recycled resources (Dugarco 2023).

Recycled polyester, also known as rPET, is a fiber made from recycled plastic bottles that contain high-performance qualities such as thermal regulation, moisture-wicking, and resistance (Made Trade 2023). This is another form of upcycled fabric that creates less than 75 per cent of CO_2 emissions than virgin polyester (Tatham 2020). In addition, producing recycled polyester requires less energy and water when compared to producing conventional polyester. Nevertheless, despite being produced in sophisticated manufacturing facilities which reduce the impact on the environment, the production of recycled polyester still requires chemical processes (Cariki 2023).

Lastly, Amni Soul Eco adds an extra layer of sustainability to upcycled fabrics as it is the first recyclable and biodegradable fabric in the world. After 5 years, this fabric will biodegrade into organic matter, 10 times faster than other synthetic materials (Made Trade 2023). Like, Econyl, this fabric is Oeko-Tex Standard 100 certified. However, since Amni Soul Eco is a polyamide made from crude oil, the problem of shedding microplastics into the oceans remains (Astoul 2023). Each of these fabrics represents a step forward in sustainability matters but also shows that innovation is still needed.

2.2.2. Local Production

Alongside the new trends in eco-friendly fibers, there are also emerging trends in practices that aim to respect both the planet and people.

Since the beginning of the COVID-19 pandemic, global supply chains have suffered several disruptions that ultimately slowed the manufacturing process. The rising trend of producing locally emerged as a more sustainable way that undertake this problem.

Producing locally means shortening the supply chain and protecting businesses from international liabilities. Along with this, local production allows businesses to reduce lead times and make their operations more efficient. This trend largely contributes to the goal of sustainability, as local manufacturing reduces carbon emissions and transport costs associated with international logistics. Furthermore, proximity increases quality control and safeguards that products and suppliers meet sustainable standards.

Beyond benefits for the business, local manufacturing supports local economies through the creation of job positions that assure fair labour practices (Newton 2023).

2.2.3. Ethically Made

In a world progressively more aware of its impact, ethically made products have been increasing in importance. This trend goes beyond the choice of materials used to produce a specific product and dives into labour practices.

This way, as discussed before, sustainable swimwear starts with choosing more eco-friendly fabrics that assure minimal environmental impact. Along with this, at the center of ethically made swimwear is the assurance of fair labour practices. More than ever, it is critical to prioritize the well-being of workers, provide them fair wages, and guarantee safe working conditions throughout the supply chain.

Brands embracing this trend are transparent and open about their supply chain, manufacturing processes, and labour conditions. This transparency allows consumers to make decisions aligned with their values and foster a positive brand image (Simpson and McDaniel 2023).

2.2.4. Circular Economy: Second-Hand

The rise of upcycled fibers and the adoption of vintage or second-hand swimwear are indicators of the fashion industry's shift towards a circular economy. By repurposing existent materials and garments, designers are championing circularity. The move from synthetic fibers to upcycled fibers leads to the reduction of waste and the conservation of resources.

Vintage swimwear and second-hand pieces are gaining traction in the eco-friendly swimwear market, as consumers are more drawn to these options. The increasing awareness and concern about pollution, climate change, and unethical labour practices are the driving forces behind the desire to embrace second-hand fashion (Mckay 2023). By giving a second chance to these pieces, the ecological footprint associated with new product manufacturing is diminished, waste is reduced, and consumers contribute to a more circular economy (BeFashionable 2023). Along with the benefits to our planet, buying second-hand pieces cuts down spending for consumers. The appeal of vintage and second-hand swimwear goes beyond style, as it is a symbol of ethical, resourceful, and sustainable consumption.

2.2.5. Certifications

With the increased concern about making sustainable choices, certifications on sustainability are vital for the consumer when making decisions. These certifications are a trust symbol, indicating a brand's commitment to eco-friendly choices and practices. This way, sustainability certifications boost consumer trust and allow them to make choices aligned with their values. In addition, with the increase in greenwashing practices, these certifications provide brands with an extra layer of credibility

Nowadays, there are several sustainable certification labels. Platforms like *Good on You* are essential to guide consumers' conscious choices. This platform provides trusted brand ratings that make it easy to understand the impact of a brand. The Portuguese brand Conscious the Label is rated as a 4 (good) by the *Good on You* platform on a scale from 1 (we avoid) to 5 (great) (Good on You 2023). The Global Organic Textile Standard (GOTS) is a worldwide leading standard for organic fibers that provides credible assurance of responsible manufacturing with minimal chemical inputs. This platform ultimately ensures that the end consumer receives quality organic fabric (GOTS 2023).

One of the most recognizable labels for textiles tested for harmful substances is the OEKO-TEX® STANDARD 100. This label assures consumers that a product meets rigorous safety standards for human health and the environment (Oeko-Tex 2023).

In the textile business, the Bluesign® standard establishes the highest standards for environmental and safety requirements. Products with the Bluesign approved label follow the Bluesign criteria, reducing their production process's negative effects on the environment (Bluesign 2023).

Sustainability certifications are becoming more and more popular. They not only act as standards for ethical brands but also enable customers to make decisions that align with their values and principles.

3.Conjoint Analysis

To get consumers' insights different product attributes and alternatives , we conducted a Conjoiny Analysis via the Conjoint.ly platform by creating 7 different attributes within several levels, below are the details through e details of our survey and key findings:

3.1. Survey Construction

3.1.1. Attributes Settings

According to the inspiration mentioned in the former methodology part, the chosen attributes and levels aim to gauge the significance of sustainability in people's purchasing decisions and whether they are willing to invest more in sustainable swimwear. Additionally, characteristics of the brands Conscious the Label and 38 Graus were incorporated to assess the effectiveness of their communication of sustainable practices/products.

The survey was initially designed with eight attributes, which were later streamlined to seven distinct and independent attributes. This reduction is aimed at enhancing respondent friendliness and eliminating any elements deemed irrelevant to the analysis and avoiding excessive subjectivity. Below, we present a comprehensive overview of the attributes and their corresponding levels, including those excluded and added during the survey development.

- *Price* is an imperative attribute to analyse. Indeed, during all the preliminary interviews, literature interviews, and expert interviews, we found that price is a great barrier for consumers in making purchase decisions. Six price levels were set based on the average prices of the two investigated brands, 38 Graus (65€ on average) and Conscious the Label (125€ on average). A compromise value of 95€ was established to address the broad price range. An additional 4€ was allocated to each price as the assumed cost of green packaging and delivery to gauge consumers' willingness to pay for sustainable services. To avoid complexity, we merged the prices of the two attributes into one.
- *Style* is another attribute mentioned in our preliminary interview by our respondents. Most of them care about the style of the swimwear but there is a difference in the preference of the style, some of them prefer minimalism while others prefer unique style. The purpose of setting this attribute is first to test people's choice in general --- more minimalism or unique, to offer managerial advice for the two brands, since 38 Graus is

specially focused on colourful and unique style and Conscious the Label is specialised in minimalism. We also attached two pictures from each brand to demonstrate the level of “solid colour and minimalism” and “colourful and unique”. Secondly, according to the 38 Graus is targeting clients based on their personalities, we also set an additional question in the second, together with this attribute to test if it is the right choice to target that way.

- *Quality* is also inspired by the preliminary interview. Due to its subjective nature, to ensure objectivity, the concept of "lifespan" was introduced as a substitute for quality, with attribute levels set as "half a year," "one year," and "more than 2 years.", which is a relatively objective measure.
- The attribute *Packaging* is derived from the expert interview with 38 Graus. While Conscious the Label offers a fully sustainable experience, as a small business, 38 Graus is hesitating to execute this strategy because the concerns regarding the choice of materials and suppliers as well as the minimum quantities required by factories. To see if sustainable packaging is an important factor, we add this attribute with one sustainable level “tiny bag made from recycled material” and one unsustainable level “plastic bag” with pricing implications integrated into the "price" attribute to see people’s preference and willingness to pay.
- The decision to include the *"Shipping"* attribute was influenced by insights from expert interviews, focusing on understanding consumers' willingness to pay and their perceptions of sustainable versus standard delivery methods. According to experts from 38 Graus, some brands let consumers choose between a pricier, greener delivery option and a more affordable standard one, while others provide only one choice. The levels are two of the products of the famous delivery company DHL which are DHL Standard and DHL Go Green.

- *Fabric Origin* is another important attribute because it reveals our definition of sustainability – sustainable fabric. After researching various sustainable swimwear brands on Google and their websites, we identified three fabric origin levels. One is Econyl, a type of fabric made from recycled materials and used by Conscious the Label, we also added an explanation for someone who doesn't know this term. Followed by Organic hemp and cotton and normal nylon and polyester, we would like to see the consumer perception of sustainable materials and how they impact people's purchase behaviour if they would like to pay more.
- *Sustainable Label* was chosen because of the background and literature interview because there is an increase in greenwashing practices, therefore a sustainable may seem to be a symbol of trust. We set two levels, one is the label, and the other is not to check it is vital for the consumer at the time of making decisions.
- *Comfort* is another attribute highly mentioned in our preliminary interview and it should be included in the Perceptual Map, however, due to our research market being so niche that many respondents may have not even bought one piece, it would be hard for them to evaluate the comfort. Thus, we first integrated it into the attribute list, however, it is a subjective attribute no matter how we strived to polish and interpret our statement, so instead, we added one scale at the end of the survey separately for them to evaluate the importance of comfort by themselves from 1 to 5.

3.1.2. Additional Questions

Besides completing the twelve choice screens, participants also need to answer a set of questions. To build a profile and better target based on the demographic information, we included the gender and age, as well as their salary to explore the relation between the willingness to pay. Additionally, we inquired about whether participants had purchased sustainable items to understand overall buying patterns for sustainable bikinis and the differences in behaviour between those who had already made such purchases and those who hadn't. To test if it is effective to target by personality, we added a question to let them evaluate their personality and find out the relation between the personality and the style they choose. In the end, to compensate for the excluded attributes, two scales were included for participants to evaluate the importance of sustainable attributes (which are also used to answer our second research question) and comfort.

3.1.3. Exclusion Rules

As for the Price attribute level, as mentioned before, we added 4€ to each of the original prices as the packaging and shipping fee, therefore, those prices cannot appear with unsustainable packaging and shipping choices. Thanks to the "Prohibited pairs of levels" function, we could prevent these specific combinations of levels from showing on the same alternative. Meanwhile, the Conjoint.ly platform automatically excludes those low-quality responses, which are those whose respondent did not look through all alternatives or moves little mouse as well as the duration on some conjoint sets were too short, ensuring the quality and accuracy of the survey.

3.2. Sample Characteristics

3.2.1. Gender

In this module, the respondents are offered 3 choices which are Male, Female, and Other respectively. While 0 chose the last choice, the gender of the respondents includes Female (89.8%) and Male (10.2%). Even though our ideal target group is completely female, the males are also the potential consumers of the swimwear although they are not the pro-testers, therefore, we chose not to exclude the response from the males from our analysis.

3.2.2. Age

The age was presented in 5 different ranges with an interval of 5 years, which are less than 18, 18-23,24-29,30-35, and more than 35. The questionnaire proposes that most of the participants come from the age interval 18-29, accounting for 86.4% (45.5% from 18-23, 40.9% from 24-29). The intervals at both ends are less salient. 6.8% and 4.5% of them belong to 30-35 and 35+ respectively, while only 2.3% aged less than 18. The average age is approximately 24.5 years old.

3.2.3. Disposable Income

The disposable income means besides the necessary expenses (for example housing, food, transport), the rest of the income that they can spend on other non-essentials. This module was in€ and advanced with the settings of 4 intervals with a discrepancy of 2k within them, which are less than 8k, 8k-10k, 10k-12k, 12k and more. With the increase of the value of the intervals, the participants follow the same trend as well. 21.8% of the investigated have less than 8k disposable income while 22.7% have a disposable balance of 8k-10k. 23.9% claimed to have

10k-12k. The participants with 12k+ disposable income account for the most, with a figure of 31.8%.

3.2.4. Personality

To better dive into the effectiveness of targeting by personality, we proposed a rating option with a 5 scale to let the respondents evaluate their personality. The extent of being extroverted increased from 1 (very introverted) to 5 (very extroverted). Among all the participants, those who chose 4 accounts for the most percentage (46.6%), followed by 3 (28.4%) and 2 (12.5%). With a median of 4 and the fact that 83% of the respondents opted for the top 3 boxes, we can conclude that most of the contributors tend to be more extroverted.

3.2.5. Experience in buying sustainable swimwear.

This is a polar question with only Yes and No presented to people. 22.7% of them picked Yes while the others (77.3%) picked No. Therefore, a large number of the participants haven't bought swimwear from a brand with sustainable practices.

3.2.6. Importance of Sustainable Attributes

Conducted the rating option as the one conducted in the personality study, this proposal reveals a trend that from the bottom three boxes (1,2,3), the percentage is rising till the scale 3 which is chosen the most (38.6%). Then as for the top 3 boxes (3,4,5), it starts to decrease. The ones who picked the top 3 boxes account for 71.6%, however, the individuals who picked the bottom 3 boxes (1,2,3) also account for 63%, which is not that different from 71.6%. With the mean of 3.1 and the median of 3, we could summarize roughly that there are some people caring sustainability but in general, people hold a neutral attitude toward it, which means that they may have it in mind, but it's not their priority when they purchase.

3.3. Attributes Importance

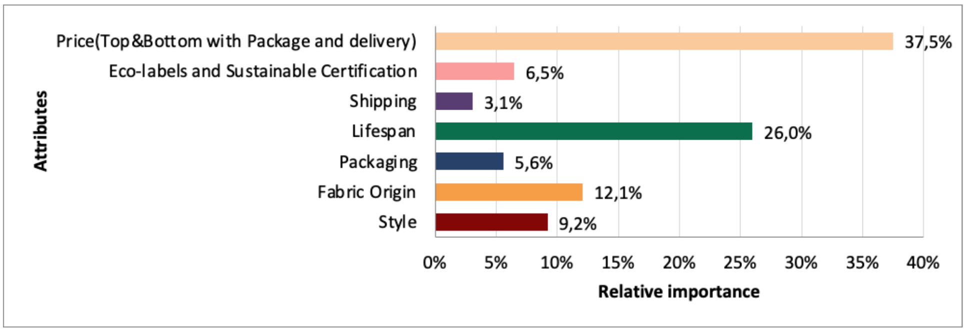

Figure 1: Attributes Importance

To better understand the consumers' preference and the importance of all the attributes, the percentage is distributed to every attribute and the sum is 100%, the greater the proportion, the more they care about the certain attribute, and the interpretation of the result is as follows:

The table demonstrates that, unsurprisingly, *Price* is the most notable attribute, accounting for 37.5% out of 100 alone, which is consistent with the result of the preliminary interview in which it is mentioned by almost everyone as the obstacle for them to buy from a sustainable brand. Tightly followed by *Lifespan* (26%), which is our interpretation to avoid the objectivity of the word "quality", also be marked frequently in our customer interviews. *Fabric Origin* turns out to be the third crucial factor with a rate of 12,1%, indicating that the consumers would like the companies to be transparent about the fabrics and are prone to choose a more solid/sustainable fabric if possible.

Unexpectedly, *Style* is not ranked in the Top 3 while in our interview with both experts and potential customers, it is considered to be one of the most significant attributes contributing to the purchase. The reason might be that firstly, it is an extremely subjective factor, they choose based on their intuition and preference instead of a general and subjective description (even though we've tried to make it more objective). Meanwhile, in our survey, we only provided the photos of two possible options, which may not be their ideal model compared with tons of pieces in the market, thus it is neglected during the process.

Eco-labels and Sustainable Certification, Packaging and *Shipping* are concluded to be the attributes of minimal importance, with rates of 6.5%, 5.6%, and 3.1% respectively. Since these are all additional attributes apart from those of the item itself, it may lead to the conclusion that people tend to focus on the characteristics of the product itself, like the price, quality, and style while others are not prioritized. Moreover, the reason why *Shipping* stays at the last place can be presumed that it is something intangible for people because it is not visible during the process of purchase nor involved in customers themselves while shipping. Therefore, the consumers cannot feel it personally and intuitively, so it is inclined to be abandoned while they make the purchase decision.

Comfort is also an important attribute that we would like to investigate but due to the subjectivity of its nature, we chose to exclude it from the attributes of the conjoint analysis and create an additional question to require the respondents to evaluate the importance of comfort by themselves from 1 to 5. The result demonstrates a mean of 4.6 and a median of 5(full score), 98.3% have chosen the top 3 boxes, which is extremely high and implies that comfort is a significantly important attribute that highly impacts people's purchase decisions.

3.4. Level Importance

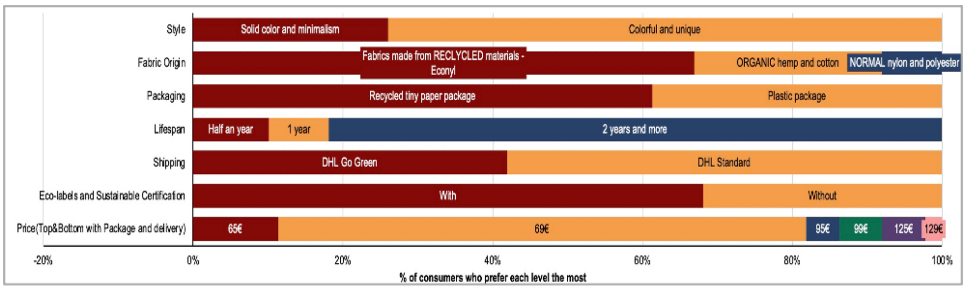

Figure 2: Level Preferences

To dive into consumers' preference for attributes and identify how they are in favour of every specific level that influences their purchase choice, Conjoint.ly provides a graph of Distribution for preference levels, in which each attribute is assigned to a bar meaning 100%, and the preference of each level are distributed on the bars if they are more favoured by the sample consumers, the percentage will be high so that it will occupy a larger space on the bar and vice versa. The sum of all the levels is 100%.

However, the results may be biased because the respondents already knew that we were conducting a survey regarding sustainability, which creates a sustainable hypothetical lab environment, along with the social desirability of sustainable outcomes, they are prone to choose a more sustainable option and, possibly, behave differently in their real lives. This hypothesis also applies to the attribute importance part above.

3.4.1. Interpretation of the Distribution Graph

As for *Style,* even though it demonstrated that the style is too subjective and there are only two limited choices, among these two levels, the samples strongly prefer the colour *and unique* version, which accounts for 64.5% instead of the simple one, which might imply that in the market, generally, the consumers tend to choose unique and trendy options. Regarding the *Fabric Origin*, the three levels were placed based on the extent of sustainability (Econyl > Organic hemp and cotton > Normal nylon and polyester). With the degradation of the sustainability extent, the samples' preference follows the same trend, in which 52% of the bar belongs to Econyl itself, which indicates that the individuals are more likely to choose the more sustainable option.

This tendency also occurs in the attributes of *Packaging* and *Eco-labels*. Compared with less eco-friendly options, the participants lean towards recycled tiny paper packages with eco-labels and sustainable certification, therefore, sustainable labels could be a drive to incentivize their purchase behaviour. However, *shipping* reveals an opposite trend, DHL Standard accounts for 58% while the rest 42% is DHL Green, but the difference is not significant. The reason for this phenomenon may be what is mentioned before, the delivery process is intangible and not transparent which cannot be felt intuitively by the consumers; therefore, they do not care about the shipping method as other attributes and think it is an irrelevant factor for them. Meanwhile, it may be also because we didn't reach the necessary number, so the result is not accurate.

In terms of *Lifespan*, as the second important attribute, people are prone to favour longer lifespans. The option 2 years or more dominates the bar, accounting for 81.8%/100% among the three levels, demonstrating the importance of endurance for the consumers.

The *Price* has been classified into six levels and three hierarchies (60+, 90+,125+). Each hierarchy contains a standard one (e.g. 65€) and a sustainable one which computes sustainable packaging and shipping based on the standard option (e.g. 69€). Among all the six levels, 69€, which is the cheapest option with sustainable elements, is the most welcomed one, significantly accounting for 70.5% of the bar itself while the other 5 options distribute the rest 30 % of the bar, which demonstrates that which the price is lower, facing with a standard option and a sustainable option, they tend to choose the latter.

To better analyse the attribute *Price,* the most important attribute for the customers, we attached the Average Preference graph below extracted from Conjoint.ly, which is a 0-centred graph, the level with a positive value indicates that it is favoured by the consumers, the higher the value is, the more they favour and vice versa.

Figure 3:Price Sensitivity

The table indicates a trend that with the increase of the price hierarchy, their preference tends to go downwards, meaning people desire cheaper pieces generally. As for the 60+ and 90+ hierarchy, the average preference value is positive, and inside the hierarchy, that of the sustainable option is slightly higher than the non-sustainable one, which means that 60+ and 90+ stay in the range of people's acceptable outcome, in which people prefer and are willing to pay slightly more for an eco-friendlier option. However, regarding the 125+ hierarchy, the relevant value is negative while the sustainable option, which is more expensive, is even more negative, showing that the individuals tend not to choose this option and are even not eager to pay more for an eco-friendly packaging and shipping service.

3.4.2. Ideal Module

Table 1: Ideal Module

Style	Fabric Origin	Packaging	Lifespan	Shipping	Eco-labels	Total Price	Rank
Colourful and unique	Econyl	Recycled tiny paper package	2 years and more	DHL Standard	With	69€	1

Based on the Ranked List of Concepts in Conjoint.ly's report, we can draft an ideal product profile which is a colourful and unique bikini fabricated by recycled material Econyl with 2 years and more lifespan and an eco-label and sustainable certificate, pricing 69€. As for the packaging and shipping, it is ideal to be delivered in recycled tiny paper bags and DHL standards.

We also listed the first 5 preferred profiles and took the rest four as our competitors. The full table has been attached in the Appendix 8. Among all of them, what differs is the packaging, shipping, and price while the rest of the attributes are the same, indicating that people are aware of the advantages of sustainable products and if the price were the same, they would like to choose the most sustainable one (also the most long-lasting one).

Although the first four options all cost 69€; however, some consumers just prefer either a sustainable package or delivery or none of them with the same price instead of all pursuing the most sustainable options, meaning that in general packaging and delivery are not that priority and even can be ignored. The first two preferred products are both with recycled packaging while among the first four preferred products, when the packaging is the same, the standard shipping is preferred, which corresponds to the discovery as the discovery in <u>5.3.4.1. Interpretation of the Distribution Graph </u>packaging is tangible so that it is more easily to be noticed if it is sustainable, while due to people are not involved in the delivery process, together with the high perceived, it tends to be excluded from consumers' choice, reflecting its lack of importance.

3.5. Willingness to Pay

Generally, marginal willingness to pay (MWTP) is the indicative amount of money your customers are willing to pay for a particular feature of your product (i.e., how much your customers are ready to pay for an upgrade from feature A to feature B, in addition to the price they are already paying now). The word 'marginal' refers to the fact that MWTP is always relative to a baseline, which is your baseline product (with various baseline features specified). (Conjoint.ly). This study was also created to support the third research question.

3.5.1. General Summarization

As mentioned in the concept, to analyse the willingness, it is necessary to set a baseline product to fuel the analysis. In our research, we chose the least preferred values in the level importance part, which are *without Eco-Label, DHL Go Green, Half a year, Plastic package, Normal nylon and polyester, Solid colour and minimalism*, as the baseline to investigate how much on average the median consumer would like to pursue for a more valued level, *Price* is taken as an indispensable back-up attribute for MWP research, which is not incorporated into the table. The result is the table shown below:

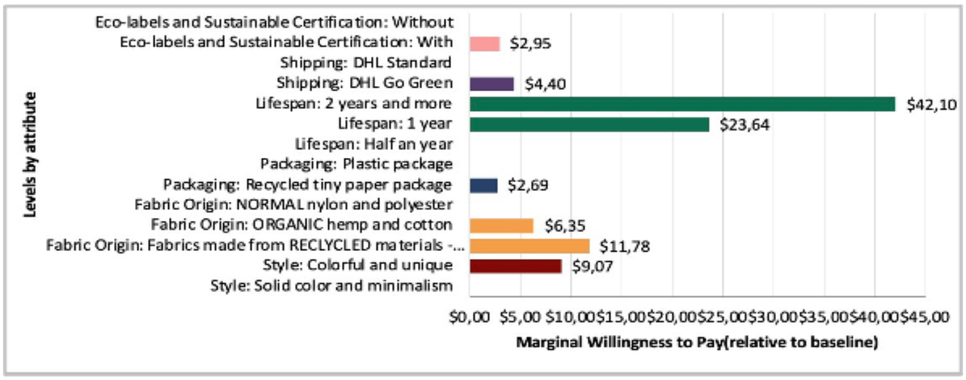

Figure 4: Willingness to Pay

The MWP value of the Fabric Origin attribute is the most salient one among all the attributes, consistence with its attribute importance, being second one below Price, which is excluded from this research. According to the result, the median consumers value an upgrade from half a year to 1 year and 2 years and more options as much as they value a price drop by 23.64€ and 42.10€ respectively.

As for styles, people are willing to pay at most 9.07€ switching from solid colour and minimalism to a more colourful and unique piece, however, the switching fee is not that high, which might mean that it is easy for the consumers to switch from different style, what matters more is their intuitive feeling with a specific style, with less correlation with money.

Regarding the other attributes, which all contain sustainable levels, the same interpretation way can be applied to all. From a general view, people are willing to pay more for a more sustainable option. Concerning *Packaging, Shipping* and *Eco-label*, even though the MWP is little, compared with their value, it is still considerable. Subsequently, the MWP of the sum of *Packaging* and *Shipping* is 7.09€, which is more than the default price we set before – 4€. This may suggest that the customers have a high level of perceived value in these two values, and are willing to pay more than the market price.

Surprisingly, concerning *Shipping*, even though in our level attribute access, DHL Standard is the preferred one, however, in the MWP study, consumers are willing to pay 4.4€ more for DHL Go Green service, implying that consumers are aware of the benefits of sustainability and concern about the environment, the reason why they chose DHL Standard as their perceived one maybe be because their perceive value of this service is high, if the price they are supposed to pay is equal or less than 4.4€, they may switch to choose DHL Go Green.

3.5.2. Relationship Between Price Chosen and Disposable Money

In both our preliminary interview and expert interview, even though people are concerned about the environment and sustainability, *Price* has been mentioned as a significant obstacle for consumers to buy a sustainable piece. However, lowering the price is hard to execute considering the prime cost and the low negotiating power with suppliers as a small business for the incapability to reach the minimum quantity. Therefore, we made a hypothesis, which is people with higher disposable income tend to pay more, which may offer a managerial decision to enable the company to target a high-income group without decreasing the price.

To realize the research, we chose two types of variables from the extracted dataset to conduct a regression analysis, one is the answers to the question regarding disposable income, and the others are Price Preferences which are demonstrated in numbers and taken the one of 65€ as baseline = 0. If the value is positive, it means they prefer this price and vice versa. We would like to see if, with the increase of the disposable income, the absolute value of the coefficients will be lower as well, because ideally, the high-income individuals will be less price sensitive. Even though the options of the question regarding the disposable income are intervals, which are categorical variables, in essence, they reflect a numerical attribute, therefore, we replace the four intervals with 7,9,11,13 based on the value of intervals. To test the correlation between the two numeric variables, we ran the “regression” and got the following matrix:

Table 1: Regression Matrix of Price Chosen and Disposable Income (2 decimals)

R Square	0,07

	Coefficients	Coefficients(Absolute)	P-value
Intercept	10,87	10,87	1,37
69€	-0,27	0,27	0,61
95€	0,18	0,18	0,11
99€	-0,15	0,15	0,69
125€	-0,09	0,09	0,80
129€	0,05	0,05	0,87

Based on the results, it reveals that even though the absolute value of the coefficients is going down while the prices increase, the p-values are all over 0.05 (even if because of the low sample number, we increase the p-value to 0.1), which means the results are invalid. Therefore, from this study, there is no valid relationship between Price and Disposable Income. However, the absolute value of the coefficients appears the ideal trend. The R-Square is 0.07, which means it only predicts 7% of the sample, so the quality of the module is not high. If the companies can optimize the research method and eliminate the internal and external negative factors, for example, by making sure the reality of the disposable income of the respondents and enlarging the number of samples, the result might be valid.

3.6. The Relationship Between Personality and Style

38 Graus defines their style as something different, something that tells a story, to stand out from the rest and be original, even if they have a piece with just one colour, it will never be like, for example, completely black or white. During our expert interview with 38 Graus, Inês, the Head of Strategy and business, reveals that instead of solely targeting their consumers by their age, they are thinking of targeting the personality of the consumer and their mission is to design bikinis for bold, fun, extroverted girls that love to live and enjoy the summer. Therefore, we started this study by testing if there is a valid and positive relation between their product

characteristics (colourful and unique) and the personality they target (bold and extroverted) to make sure this is a feasible method.

To achieve our goal, we extracted all the detailed report data of the respondents, keeping the data about *Personality Type* (measured from 1 to 5, which is quantitative) and *Style: Colourful and Unique* from the Individual Preference sheet, this variable takes *Style: solid colour and minimalism* as the baseline = zero, if the value is positive, if means the respondent prefer the colourful option, the more the value is, the more they prefer. Seeing that we will measure the relation between the two numeric variables, we decided to run the "Regression" function in excel with these two columns as input, here is the correlation matrix:

Table 3: Regression Matrix of Personality and Style (3 decimals)

R Square	0,042

	Coefficients	*P-value*
Intercept	-0,149	0,750
Personality type	0,258	0,053

Due to the limited sample, we decided to increase the P-value to 0.1(confidence level 90%). According to the result, the P-value of the personality type is 0.053, which is lower than the 0.9, meaning that the coefficient is valid. The positive coefficient 0.258 indicates a slight direct relationship between the personality type, which means the more extroverted the customers are, the more probability they will choose a colourful piece, but the effect is not that significant. However, the model is low-quality, which means it only predicts 4,2% of the sample seen from the R-Square, meanwhile, as we didn't reach the number required, with the optimization of the research method and the enlargement of the sample, the coefficient is predicted to be higher. The trend can also be roughly seen in the Sample Characteristics and Level Importance part, in which the most of our sample tend to be extroverted while the level Colourful and Unique is also the one being preferred.

Meanwhile, Conscious the Label, whose mission is to be sustainable from head to toe, offers a completely contrast style with 38 Graus, which is simple, timeless and minimalism. Therefore, in our analysis we would like to test if the people who are concerned about sustainability will favour more a simpler style.

We chose the data of *Sustainable Importance* (measured from 1 to 5, the more it is, the more important sustainability is for them) and *Style: Colourful and Unique*, extracted from Conjoint.ly, to conduct a Regression to see if there exists relation between these two variables, the results are as follows:

Table 4: Regression Matrix of Sustainability Importance and Style (3 decimals)

R Square	0,029

	Coefficients	***P-value***
Intercept	1,310	0,0009
Sustainability Importance	-0,185	0,116

As what is stated before, we increased the confidence level to 90%. The coefficient of Sustainability Importance is negative, which means the more they think sustainability is important, the less they will like a colourful version, which means they will favour a simple and timeless one. However, the P-value is slightly more than 0.1, meaning that the result is invalid. But similar phenomenon as before happens: the R-Square demonstrates that this module only predicts 2.9% of the sample, after the optimization of the research method, the result might possibly turn to be valid.

3.7. People's Awareness of Sustainability and Its Influence

3.7.1. Perception

The measurement of people's perception is under the combination of the additional questions, level important and marginal willing to pay.

In the additional questions, even though few people have bought a sustainable piece and sustainability is not their priority when they purchase, however, still more than 70% chose the Top 3 box, in the level importance part, while facing with a standard and sustainable version, they tend to be favour of the more sustainable option. In the MWP research, they are willing to pay more for a relatively eco-friendlier option. Therefore, we can conclude that most of the people are aware of sustainability practices and its benefits as well as concerning about the environment. They would like to choose the more sustainable one in an ideal circumstance, however they end up with not buying due to some external factors, for example, barriers like price itself and perceived (take the case of Shipping in MWP as an example) or no style that amuse them etc.

3.7.2. Effectiveness of Sustainable Labels

As what is mentioned in the literature review, sustainable labels are vital to people's purchase and might be incentivize their decision process. Thus, we would like to test the effectiveness of Eco-labels and sustainable certificate by vertically analysing the data from the attribute and level preference together with MWP.

The result from the attribute importance study demonstrates that eco-label and sustainable certificate is not a must in the individuals' impression, the extent of preference only accounting for 6.5% out of 100%. However, it could be a "cherry on the cake" in people's buying process. In the level importance report, the perceptive importance of being with a sustainable symbol is much greater than being without it. They are also deliberate to pay more for it based on the result of MWP.

To dive into the extent of the effectiveness, we executed the "simulation" function in Conjoint.ly to the people's preference between products with and without eco-label and sustainable certificate by inputting the information of the Ideal Profile in level importance part, which includes Eco-label, and another profile only without the Eco-label while the other attributes are the same as those of the Ideal Profile. The bar graph attached below suggests the result:

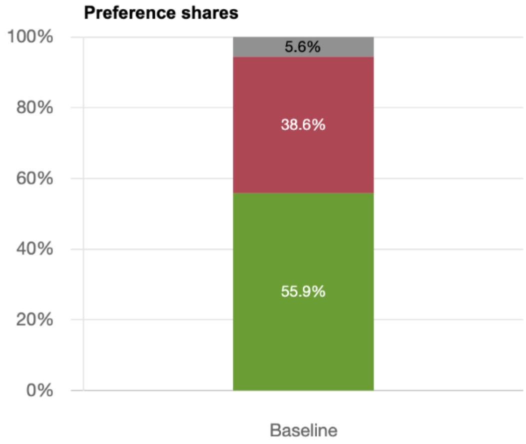

Figure 5: Preference Share of the products with and without eco-label

The green part indicates the preference shares of the one with eco-label and sustainable certificate while the red part means the people who prefer the one without it, the grey implies the proportion of people who will choose either of them. From the result, the quantity of consumers who prefer the one with the sustainable symbols occupies 55.9%, which is 17.3% higher than those who prefer without it whereas there is still 5.4% favouring either of the two options.

In a nutshell, eco-label and sustainable certificate is not consumer's priority when they purchase but is what they like and may be the catalyst to their final decision.

3.7.3. The Influence of Sustainable Elements on Purchase Decision

As what has been discussed, people tend to choose the more sustainable characteristics and are willing to pay more for them if there were no other obstacles. To deepen into the preference, like the last discussion, we ran simulation integrated the fabric origin, which is our definition of sustainability. For the non-sustainable levels, to control the variables, they are both chosen the most favourable level: Price (69€), Lifespan (2 years and more) and Style (colourful and unique), as for the other sustainable attributes, the 65+, 95+,125+ level corresponds to the fabric origin of Normal nylon and polyester, Organic cotton and hemp, Econyl, with an increase of sustainability extent. The green part indicates the set with sustainable packaging and shipping (69, 99, 129) and eco-label while the red one implies the ones non-sustainable.

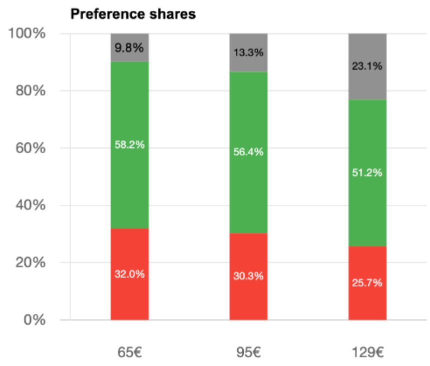

Figure 6: Preference Shares of the sustainable and non-sustainable products

The graph reveals that within the same fabric origin, people would like to pay more for sustainable packaging and shipping. However, among different fabric origins, taking the first bar as the baseline, the more sustainable it is, the more expensive it becomes, and the fewer people will choose the preset option. To conclude, sustainable elements will positively contribute to their purchase if there are no barriers, with the increase of the total price, people's willingness to pay will decrease.

3.8. Key Findings

Among all the attribute levels, consumers care more about the price, lifespan, and material when they purchase. Within their detailed levels, they prefer a longer lifespan and more sustainable material. Even though they tend to prefer a lower price, they are willing to pay for a sustainable element if the total price is at their acceptable range. As for style, people tend to favour one with a colourful unique design in general, however, due to the relatively low attribute and level of importance (which may be caused by the limited style images in the survey) and lower switching fee from a MWP study, we can imply that style is more like an intuitive factor, they choose based on the concrete style itself instead of a general description of a style group, which also have impact. Comfort is an extremely important factor for the customers with more than half of them choosing the full score. For the other sustainable elements like packaging, shipping, and eco-symbols, they are not the must and priority but proved to facilitate their purchase decisions as the “cherry on the cake”. Sustainable shipping is not what they prefer but at the same time they are willing to pay more for it, which may indicate that some sustainable services and products have a high perceived value, if the price is transparent enough and at their range, they will possibly switch their decisions. Moreover, it is also detected that more extroverted people tend to choose a more colourful and unique design, even though the coefficients show that more disposable balance is less price-sensitive and willing to pay a higher price and more sustainably-concerned people will prefer a simple-style swimwear, the results are not valid because of the P-Value is higher than the reasonable range, however, this may result from certain factors, such as limited sample number, with optimization, the outcomes may turn to be valid.

4. Discussion

We will use the data from each portion of this thesis, comparing the outcomes of the quantitative and qualitative analysis, to summarise and elaborate on other conclusions in this chapter, considering that every research topic was also addressed throughout the analysis of the results.

<u>Research question 1: Are consumers aware of sustainability practices in the swimwear market?</u>

In the Literature review chapter, we covered the Theory of Planned Behaviour, which explains how behaviours start as attitudes, which develop into intentions that shape those actions. As attitudes and intentions form the basis of behaviour, before we address the reality of the behaviours and actions of Portuguese women in the context of the sustainable swimwear market, for us to later evaluate that behaviour and possible changes deemed necessary, we first must address how the consumers are positioned in terms of attitudes and intentions. Here enters the subject of how aware the consumers are of the sustainability practices in the Portuguese swimwear market.

The more sustainable mindset about shopping will always be a "buy less, wear more" attitude and limit consumption. On the results from the consumer interviews, we mentioned how some consumers did not have this mindset, and the problem started here. A portion of the sample expressed the desire to acquire new swimwear every year, not because they needed a new item, but to have something new and trendy. Furthermore, even when making apparel purchases from sustainable brands, the most sustainable option will be one that will have a long-lasting value and perhaps one that will be timeless and never be considered to go out of style (Tonti 2023).

Using our results from the preliminary interviews and the perceptual map survey, we can evaluate how aware the consumers were of the brands and practices of Portuguese swimwear. In the preliminary interviews, all respondents, except for one, could name at least one sustainable swimwear company. In terms of the mentioned brands, as previously mentioned, Conscious the Label and 38 Graus, the brands on which we focus in this dissertation, were both cited by the participants as sustainable brands, the first more so than the latter. This result was to be expected since 38 Graus, despite its dedication to sustainability, did not enter the market to provide a sustainable product, and Conscious the Label is, from the beginning, fundamentally a sustainable brand. Moreover, when asked what the participants would add or change about the swimwear market in Portugal, one of the most common arguments was a desire for more sustainable brands and initiatives. The results of the Perceptual Map survey also showed that these brands are less present in consumers' minds than expected. When we asked participants on the Perceptual Map survey if they knew brands with sustainability practices, more than half could not name any brand (55%). Nonetheless, the most recalled brand by the Perceptual Map survey respondents was Conscious the Label, just as in the preliminary consumer interviews. Furthermore, in that same survey, when asked why the respondent considered a brand sustainable, fabric source was the most mentioned reason, when in fact, there are many more processes where sustainability could be impacted. These may be delivery options, production processes, community impact, circular economy, and so forth. Even if Portugal is not the most developed country in this matter, there are several sustainable offers in the market. So, from our sample of consumers, although there was a general awareness of one or another sustainable brand, consumers showed they were somewhat unaware of where the market stands. This result also aligns with the brands' viewpoint about consumer awareness of sustainable practices. Namely, during our interview, Inês, the expert at 38 Graus, acknowledged that although the feedback on their second-hand swimsuit initiative, the "2nd Life Project", has been very positive, many people are still unaware of this project. They have been trying to pass and communicate the message, but they feel they still need some patience and time to get where we want to be.

As Portuguese consumers might not be aware of sustainable practices and why they are so critical, the question of whether they need education on sustainability topics can then be raised. It has been established that there is an overall elevated demand for more sustainable products and services. However, in the specific case of the swimwear market in Portugal, that might be more complicated. In fact, there may also be a problem with those who claim to be knowledgeable about sustainability issues but are entirely uneducated. They may have only persuaded themselves that they should lead more sustainable lives because that is what society and people around them say they should be doing, but they may need to understand why. For that type of consumer, it will be unlikely for them to follow through with their goals and actions if the logic behind them, their knowledge of the subject and their attitudes are superficial or misguided. Long-term behavioural changes will not occur if people follow sustainability trends mindlessly without question or do not understand the motivation behind their actions. Should their actions lack a solid foundation, the outcomes they may be producing for the environment could be fleeting and transitory. In this sense, Portuguese consumers might need some education about the swimwear industry, which can be a self-motivated practice. However, it can also be a brand initiative. The consumer interviews also provided some insights in this regard. When asked what they would add or change about the sustainable swimwear market in Portugal, the most common arguments made were for brands to have a better and more active approach to marketing and publicity to bring more awareness to this issue, for more brands and initiatives to be offered and for brands to be more forthcoming and transparent about what sustainability means for them and their practices. As a degree of unawareness was revealed, brands were encouraged to approach the consumers differently in a way that could raise sustainability awareness.

When we talked with 38 Graus and addressed this subject, if brands have a role in educating the consumers and awakening consciousness, the expert put that responsibility on both parties. She said that as a brand, in today's world, they have a responsibility to face sustainability, consider it a value, and do everything to educate the consumer. However, she also added that simultaneously, she believes that as generations move forward, the care for sustainability and the demand is increasing and that if brands want to survive in the market, they will have to react and answer to their demand. Regarding the interview with Conscious the Label, the expert took this matter to her opinion that it transcends swimwear, that there is a deeper issue of hyper-consumerism, and that consumers need to be educated in a general way about sustainability in every aspect of their lives, and that cannot come only from swimwear brands.

Overall, we believe that the answer to this research question is no. More brands are moving towards opening sustainability chapters in their journeys, and the industry is showing signs of moving towards a more sustainable direction. However, consumers are still unaware of what is happening in the market and can discern which brands have sustainable practices.

Research question 2: Is sustainability a relevant factor in the consumer purchase decision of a swimwear piece?

We gathered valuable insights from the consumer interviews that help answer this research question. For the respondents, sustainability did not seem to be a factor they considered when buying swimwear: it was never mentioned in the question about the critical factors they consider when buying a swimwear piece nor in the questions about the attributes that made them purchase their most recent swimwear costume. Moreover, all participants, aside from one, had never purchased swimwear from a sustainable brand.

According to Joana Silva from Conscious the Label, sustainability is not a key factor for consumers in Portugal at the moment. In her interview, she explained how she believes it is a plus for many consumers but that most would buy their preferred pieces even if the brand were not sustainable. The northern European market was referred to as a market where the purchase decision is much more based on the sustainability factor, where the purchases are much more of a conscious choice. However, here in Portugal, she confirmed what the consumer interviews revealed, that people buy thinking first about other attributes, such as the design, and that sustainability is just a bonus. Even our one participant who acknowledged having purchased a piece from a swimwear company, 38 Graus, even said that "sustainability was a plus. The choice came from the design itself."

In line with the first research question's discussion, there is concern that the process of purchasing swimwear should be based on adhering to a sustainability trend rather than making an urgent and necessary shift in consumption habits, even for those who may express some concern for sustainable purchases and consider that. Given that this industry is still lagging in sustainability, it would be encouraging to see more consumers making morally and environmentally conscious purchasing choices. However, for this industry to see long-term improvement, sustainability must be taken seriously and supported by the appropriate mindset while making swimsuit purchases.

The Conjoint Analysis also reveals a similar trend with the interviews. Among all the 88 respondents, 77.3% have never bought a sustainable piece. Meanwhile, we also conducted a simulation with 3 different concepts: we only included the three hypothesised fabrics indicating three different levels of sustainability, with the rise of the extent of sustainability, the price corresponds to 65€, 95€ and 125€ respectively, since, in the current swimwear market, the more sustainable the piece is, the more expensive it will be. The bar table below demonstrates the outcomes: more than half of the people would choose the least sustainable and cheapest one, from the least sustainable to the second sustainable one, people's preference dropped sharply, indicating that, if integrating the price with the level of sustainability, people tend to choose a cheaper and not sustainable piece, instead of pursuing a more sustainable one. Nevertheless, there is no significant distinction between the second sustainable option and the priciest, most sustainable alternative. The preference for the latter doesn't diminish even with the increase in price and sustainability level, albeit slightly higher. This observation suggests that while a small segment of consumers highly values sustainability and is willing to pay a premium, they remain a minority within the broader market. It implies that most consumers, while expressing a preference for sustainability, may not prioritise it to the extent of choosing the most sustainable option, irrespective of the price.

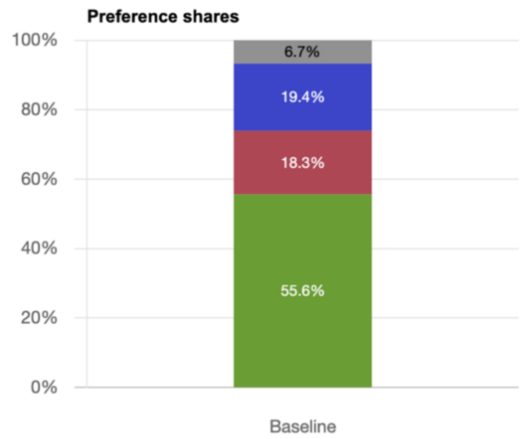

Figure 7:Preference Shares of the products with difference sustainable levels

However, sustainable attributes can be the “cherry on the cake”. From our level preference study in the conjoint analysis part, when people face a sustainable and non-sustainable option, if they are at the same price or the price is within their acceptable range, they will prefer the eco-friendly one. In a nutshell, sustainability is not consumers’ main priority. However, if there is no barrier such as price, they will positively contribute to the purchase behaviour.

<u>Research question 3: Are consumers willing to spend more on sustainable swimwear?</u>

The consumer interviews also proved helpful in gathering insights that contribute to answering this research question. First, price was revealed to be an influential concern for consumers during their purchasing decision process. Throughout the interviews, the participants seemed concerned with swimwear price points, which appeared to outweigh others, especially sustainability, and be an obstacle for certain purchases. Price was mentioned by almost half of the respondents as an important factor they consider when purchasing swimwear, and when they were asked about which attributes made them choose the last swimwear piece they had bought, 30,77% of the sample also mentioned the price point. From our sample of consumers, 23,08% also wanted to see more affordable options in the swimwear Market in Portugal. Furthermore, when asked specifically about Portuguese sustainable swimwear brands, 84,62% of the consumers mentioned price as an obstacle preventing them from buying more items from those brands, and 61,54% of the respondents also acknowledged that they would opt to buy more from sustainable brands if they offered more affordable prices.

Finding an affordable piece was a priority when we talked with the consumers, while sustainability was not. There was no indication from any consumers who participated in the preliminary interviews that they were willing to pay a premium price for a sustainable swimwear item.

From the result of the conjoint analysis in 5.3.5. Willingness to Pay and 5.3.7. People's Awareness of Sustainability and Its Influence, we can directly conclude that in ideal circumstances without any barriers, people are willing to pay more for a more sustainable option at all levels. Even though the Level Importance study suggests that people prefer a standard, which may result from high perceived value or lack of personal experience in the shipping process, they are still willing to pay more for a more sustainable shipping method.

According to Figure 8 in the Level Importance, for the packaging and shipping, at the price range of 60€+ and 90€+, people prefer to spend 69€ and 99€ (which are set to be with a more sustainable packaging and shipping costing 4€) rather than 65€ and 95€ (Standard and non-eco-friendly service). However, in the level of 120€+, the preference through the 129€ option is lower than the 125€ option, which means that for packaging and shipping, with a specific acceptable range, people are willing to pay more for a more sustainable service. Still, if the total price surpasses a benchmark, a more sustainable and expensive service will create a consumer burden, resulting in less purchase willingness.

As for fabric origin, as discussed in "5.3.7.3. The Influence of Sustainable Elements on Purchase Decision", with the rise of the price, people tend to favour less of the given two options (one with sustainable packaging and shipping while the other not) in each price range. The more sustainable the fabric origin is, the more expensive it will become, and the lower the percentage of people who will choose the pre-set options.

In summary, people are willing to pay more for sustainable attributes within the same or close price range. Nevertheless, with the total price increasing, more people switch to other options, which proves the total price is a barrier and corresponds to the initial findings in the literature review: "Several other studies have demonstrated that a higher price may prevail over ethical considerations and purchase probability for green products decreases as the price premium increases" (Kostadinova 2016). People are willing to pay more if the total price doesn't increase substantially regarding sustainable packaging and shipping service options. In contrast, the willingness for more sustainable fabrics decreases with the increase in the total price.

Research question 4: Specifically exploring the cases of 38 Graus and Conscious, how aligned are the brand's positioning and communication strategies with consumer perceptions regarding sustainability?

In the context of this research question, it is essential to understand that these two brands have different market positionings, targets and approaches to sustainability and that all these factors influence consumer perception.

As the expert, Inês, from 38 Graus, pointed out during our interview, when a brand defines what it is, it puts a label on it. Moreover, they attract and talk to a specific market section when they have a particular label. Within that target, the consumer pool will be very defined. She mentioned that a business must think of what they are and with what consumers they are trying to talk to. Some brands may decide to pursue a strategy where, knowing precisely what their purpose is and where they stand in the market, they have a very assertive message for a particular consumer concerned with sustainability. As a result, they may reach fewer consumers, targeting specific sustainable-oriented consumer types (resulting in higher conversion rates). During our conversation, the expert mentioned that perhaps with the message Conscious communicates, they might end up excluding some consumers that, even though they do not practice sustainability in every choice and purchase they make, might still be open to being more responsible and open to a greener industry with better practices and initiatives. Furthermore, in the end, it is a choice a brand makes when they launch their business. In the case of 38 Graus, they see sustainability as a value influencing their decision-making process, a brand responsibility in this industry. In this sense, they pursue a broader audience, which may include people who do not usually make conscious purchase decisions in their everyday lives. Inês noted that they are not a "sustainable swimwear company through and through" and that it is not their reason to exist. Their consumer is not entirely focused on making a sustainable purchase before coming to them. As pointed out during our interview, 38 Graus' market positioning is centred around solving a woman's problem: to feel confident and beautiful so they can enjoy their summer and beach days the way they are supposed to. And while they try to solve that problem, they try to have sustainable operations and initiatives. We can then make a case that whereas Conscious the Label targets a specific consumer type that already makes more sustainable choices, brands that appeal to other consumers, like 38 Graus, have opportunities to influence consumers to make more conscious decisions alongside the brands they like.

With a better understanding of the brand's perspective, we can then compare it with the consumer perceptions and insights we were able to collect during our consumer interviews, as well as with the perceptual map and conjoint analysis. Before addressing that, it should be noted that both brands were recognised as sustainable in the preliminary interviews. However, as almost every participant mentioned Conscious the Label, 38 Graus was not cited as much. Even when some talked about the brand, they admitted to not being entirely sure to what extent it was sustainable. This also ties back to our first research question.

Regarding the communication strategy of 38 Graus, as previously discussed in the expert interview, they are positioning themselves as a brand for extroverted, bold girls, offering more colourful and unique designs (and even when their products have a single colour, they will always have a unique touch). Therefore, in our conjoint analysis, we ran a correlation between personality and style to see if more outgoing people tend to choose a more colourful option. The result demonstrated that there is a slightly positive correlation between them; the more extroverted they are, the more they tend to choose a more colourful piece. People generally prefer colourful and unique designs rather than single-colour and minimalist styles. Regarding their reselling project of pre-owned 38 Graus bikinis, the "2nd Life Project", which is their main impact in terms of sustainability, as previously discussed, the results from the expert interviews confirmed what the preliminary interviews revealed that consumers are still not recognising the project as the brand would like. Although this initiative has received positive feedback, consumers are still not very aware of it and, therefore, aware of how 38 Graus is working on its sustainability chapter. The project's communication is to be worked on and improved for the consumer's perception of how the brand is an active player in the sustainable sector of this market. In the end, although 38 Graus' consumers' perception of the brand as a brand with trendy designs meets the brand's positioning, there is still a significant level of unawareness about the values and active sustainability practices of the brand. During the preliminary consumer interviews, as previously mentioned, Conscious was well-acknowledged by its sustainability efforts. This small group of consumers claimed that just by the name of the brand they could tell that sustainability was its focus. But on a larger group, as seen in the survey, the brand it’s not as recognizable since it’s also the most recent brand among all four (launched in 2019). As Conscious targets consumers that already have positive daily attitudes related to sustainability, people that are already very lean to sustainable practices, these results confirm the argument previously made about them having a narrower target and about them not being as present in the minds of a larger customer base. Different reasonings can explain why Conscious was not the most associated brand to sustainability among all others, looking back to the perception map. Since the majority of respondents are unaware of sustainable practices in the market and don’t even consider sustainability to be an important attribute to their swimwear purchasing choices, Conscious ends up being less present in their searching process. When a brand fully targets sustainably responsible consumers and communicates its impact and sustainability practices, it automatically pushes the brand away from the mass consumers who don’t value sustainability as much. And, of course, the fact that consumers are unaware of the type of sustainable practices and their impact on the planet doesn’t help the brands because the work they are putting into practice is not being validated or appreciated accordingly. This work of educating consumers regarding sustainability needs to be considered. by the brands, because the word itself is just the tip of the iceberg and not self-explanatory.

In addressing this last research question, we can examine the brand's stance about consumer perception both inside the target market and across the entire Portuguese swimwear consumer base. Looking at 38 Graus, there are more discrepancies. Although they are one of the Portuguese brands in this industry that take sustainability seriously and that act on such values, their intentions and efforts are not being recognized either by their customer base, the people who buy from them, or by the general public of swimwear buyers. Talking about Conscious may not be as straightforward as initially expected. Even if Conscious the Label is actively communicating and being vocal about their actions, it still doesn't get as much attention and doesn't reflect what we have seen on the perceptual map. The first reason why this happens is because consumers are not aware of the existence of the brand, and the ones that know and buy products from the brand belong to that focused target that Conscious has already mentioned above. This conclusion is consistent with the observation made in the literature study that consumers are less inclined to buy "green products" if they are not familiar with the brand, underscoring the significance of brand awareness and consumer confidence in purchasing decisions (Kostadinova 2016).

In summary, while the audience's perception within their target market is very much in line with the brand's message and intended market presence, when we extend the interpretation to a larger group of swimwear consumers who place a lower value on sustainability and are less knowledgeable about the industry's operations, the perception outside the brand is as aligned, and in this case, discrepancies were not.

5. Recommendations

As the fashion industry transitions to more sustainable practices and processes, businesses must stay current, considering market trends and tailoring their approach to their target audience, core values, and long-term goals. Companies must prioritise sustainable practices in their communication strategies to thrive in today's conscientious market. Emphasizing the advantages of comfort, lifespan, and fabric quality in their communication plan is crucial, as empirical evidence underscores the pivotal role of comfort in consumer decision-making. Moreover, lifespan and fabric quality consistently emerge as top attributes preferred by respondents.

Generally speaking, for brands, incorporating sustainable icons and certifications onto products is highly recommended, given their low cost. However, contributes to the purchase behaviour, as seen from the corroborating evidence from Conjoint Analysis. Lowering prime costs becomes paramount, as it has been identified as a major barrier. This can be achieved through effective negotiation. As Joana from 38 Graus has said, this is difficult to achieve. Therefore, companies could re-evaluate the necessity of specific sustainable measures. For instance, sustainable delivery may be excluded, as conjoint analysis indicates that consumers are prone to overlook the sustainability of delivery methods, and excessive charges may deter them, inadvertently hindering the desired impact. If necessary, the companies can only target a certain group of people comfortable with a higher price, such as the high-income group. To attract more people who are in favour of sustainable attributes, the overall style is supposed to be simple and timeless. Even though Conjoint Analysis does not prove the former two measures, it possibly results from the narrow sample size. Companies can try to re-do an additional study with optimisation and a larger sample, which are predicted to turn those results valid.

Meanwhile, as addressed in the discussion chapter, consumer must get educated on the sustainability practices available and their impact on the environment, society, and the economy. Consumer awareness of the benefits associated with sustainable products has grown significantly, and the results from Conjoint Analysis further validate the positive influence of sustainable attributes on consumer purchasing behaviour, leaving room for us to be optimistic about improvement in this industry. Nevertheless, across all methods and surveys used in this research to get consumer insights, most consumers demonstrated not to be aware of swimwear brands committed to sustainability and their practices. So, although they should make a self-motivated effort to stay informed, they also require some support and assistance in that process. Based on this, and after the analysis conducted on this project, we will now give some recommendations directed to the four brands.

Conscious the Label

To reach other audiences, Conscious should focus on other attributes beyond what the brand is already doing in terms of sustainability, which impact the purchasing decision. While Conscious focuses on a niche target market that is highly appreciative and committed to sustainable practices, the brand is not associated with the most considered attribute in this market, design, narrowing its market share. Conscious would likely win the consumers, by targeting an adaptation in design first. While remaining "on brand" and staying within their essence of a more simple and minimalistic style, they could diversify their models to attract another set of consumers. This could mean collaborations and partnerships with young designers who are in touch with market trends and can capture a more youthful spirit that could bring a refreshing and unique take to the simpler models. In our opinion, it is crucial that they continue to communicate their sustainability practices and their impact. However, at the same time, they could extend their consumer base if they tried to attract young women more engagingly. When considering especially the comments made in the preliminary consumer interviews, it would be interesting to see them venturing more into body representation, a fiercer marketing approach, and an influencer marketing strategy endeavour, which we saw to have a powerful effect on brand recall. In relation to the topic of body representation, it might be interesting for the brand to incorporate more diverse body types in their campaigns to support inclusivity and body positivity. Based on our consumer interviews and the interview with 38 Graus, we believe this is a great communication strategy that will resonate with consumers. We discovered during the conversation with Conscious that the founder's passion for sustainability was reflected in the choice of the company name, in a "full-circle moment". Maybe they might take a different approach to the name and start a campaign emphasizing how they are "Conscious" of other issues, including body representation. By doing this, they might draw in female customers who are mindful of this problem and want to see representation for it in a swimsuit advertisement. They might use that chance to introduce the brand's other ideals and sustainable products to those curious and prospective customers. Given that the typical Conscious the Label customer is active on social media, another recommendation would be for the brand to collaborate with online influencers who are well-known to their target market, as they did with influencer Alice Trewinnard in the past, to promote the need for both consumers and brands to pay attention to their environmental footprint, particularly in the fashion industry. In addition to engaging and educating customers on sustainability topics, a series of podcaststyle interviews with guests — who might be other industry influencers and experts — could be posted on the company's website and social media accounts. This would also create some "buzz" about the brand and increase awareness.

As we have seen in this study, consumers value sustainability as a plus and not an attraction feature to the brand, meaning that even though they might be interested in making a more ecologically conscious purchase, if they do not like the design of the swimwear product, they won't purchase it. This means that Conscious the Label has significant growth changes if it communicates differently to consumers or uses more than one claim so that it can engage with other consumers.

<u>38 Graus</u>

From all the brands studied, we believe that 38 Graus has the most significant margin to grow regarding sustainability perceptions. Since the brand has the highest score in terms of design perception, one of the essential attributes of the purchasing decision process and considering that sustainability is a plus and not a must for consumers, as mentioned in the preliminary interviews, it is a perfect scenario for 38 Graus in terms of market share expansion. They can take advantage of the fact that they already have a broader set of consumers and a wider receptive audience to their brand image, and by enhancing their approach to sustainability, they can influence more consumers to make more sustainable purchases and contribute to a greener industry. The brand's second-hand project is one of the most impactful practices in its sustainability journey. As mentioned in the expert interview, they are still in the process of spreading awareness about this initiative, and they are hoping to scale it up. Before this upcoming summer season, we recommend they explore the initiative more, use their social media platforms to advertise it, and use their relationships with influencers and digital media personalities to promote it. Along with the idea of creating a sense of community around the brand, and for the sort of consumer that, like the ones in the expert interviews, showed to appreciate trying the products in the store and seeing the fabrics in person, an event at the 38 Graus store, where a sort of market could be held dedicated to the “2nd Life Project” could prove to be very successful. By inviting both consumers and local and uprising influencers, the brand could have this moment where people could get to know the program better, testify to the quality of the pieces and have a fun day overall, aligned with the brand’s style. Content made during the event, such as photographs, Instagram reels, and TikTok, could be used to boost their social media pages and expand 38 Graus’s eco-friendly initiatives' reach. This type of communication strategy gives a more significant margin for the brand to grow and improve its consumer perception regarding sustainability. The consumers we interviewed showed they would be open to more sustainable and conscious purchases if the marketing, publicity, and communication were more engaging than what they are currently seeing. However, they could have shown more initiative in getting informed on the subject; they want brands to do a better job informing and educating them and being transparent and clear about how they contribute to a more sustainable industry.

Cantê and Latitid

As validated by the experts from 38 Graus and Conscious the Label, Cantê (2011) and Latitid (2012) are the most prominent players in the Portuguese swimwear market, as they are also the longest-running ones of their category.

Cantê surprised us the most regarding sustainability perceptions and associations. It made us consider that people may relate all made-in-Portugal brands as sustainable, just considering that they are not fast fashion. Cantê is attentive to the environmental impact that their processes have on the environment, but it does not seem to be at the brand's core. Out of the four brands we discuss in this research, it is the most well-known and pioneered this line of Portuguese swimwear. Given that consumers currently view Cantê as having a powerful sustainability image, the company needs to seize this opportunity and go above and beyond. As a result, they should investigate further industry-available sustainable practices or perhaps align themselves more with what Conscious the Label and 38 Graus can achieve.

Considering the perceptual map results, Latitid should spend more time benchmarking since it is very far apart from all perception points. The brand was launched in 2012, after Cantê, which was essential to establish, but the study reveals that it is not as updated with market trends and not associated as much with the consumers.

When we spoke with Inês from 38 Graus, the industry expert was quite puzzled about why other brands — especially these two with more prominent names in the business — do not have more circular economy initiatives or second-hand programs, and we wonder the same. Inês acknowledged that for the reward their "2nd Life Project" brings them, it is "actually no work at all", suggesting that other brands could implement initiatives like this one quite easily if they wanted to. These two brands could take advantage of the fact that consumers view them as already more sustainable than others, such as H&M, Zara or WomenSecret, and work towards having a more active voice and role regarding sustainability in the industry by easily implementing second-hand initiatives. It could be very advantageous for brands like Cantê and Latitid, as they would also contribute to creating a sense of community around them to support the storytelling they are trying to achieve (which, in the expert interviews, was also pointed out as a great way brands can differentiate themselves).

As previously mentioned, the fashion industry's environmental effect is positively impacted when a more circular economy is adopted - there is less waste, materials that could be utilized to create new products are preserved, and production-related pollution is reduced. However, in the case of swimwear, it can be more challenging for the consumers as it is a very intimate product. Our research led us to the conclusion that Portuguese consumers buy swimwear quite often. They tend to buy and own multiple pieces, sometimes more than they need, so buying pre-owned swimsuits (rather than new ones) may be a more thoughtful decision. We think, and the 38 Graus expert agreed, that companies may reassure customers and motivate them to embrace these purchases if they assume quality control and ensure the pieces are ideal enough to be resold. Additionally, second-hand purchases can resolve consumer issues, such as price. According to consumer feedback from our interviews, one of the reasons people do not purchase sustainable products is the cost. Therefore, if these brands use the argument that it will cost them less to buy, for example, a pre-owned bikini than a new one to promote the purchase, they can engage and win over consumers. The brands could develop a section of their website dedicated to the reselling of previously owned swimwear from their respective brands, as 38 Graus did, or even if the investment could be secured, an app that could make the whole process easier and more social-media-oriented for the consumer. In conclusion, venturing into the second-hand and embracing a more circular economy more straightforwardly and actively way can be a strategic move, as it would not only broaden Cantê and Latitid's sustainable portfolio but also address a significant hurdle – price, making sustainable options more accessible to a broader audience.

5.2. Limitations

While the study provides valuable insights, it is essential to acknowledge the inherent limits and shortcomings that may affect how the results should be interpreted. Our research endeavour was shaped by some constraints that encompass factors from the nature of the topic to materials and the methodology and approach followed. This section will highlight these limitations, which include the nature and size of the market that was studied, the lack of some financial data, the small sample size of our data collection, some challenges in selecting the attributes for our research tools, and the lab environment, along with recommendations for further research.

Niche market: Despite having several participants and experiencing significant growth over the last ten years, the Portuguese swimsuit sector is still regarded as a small sector, mostly because of the set prices. Local production expenses have a significant influence on product prices, while fast fashion brands continue to benefit from this. Our research was limited by selecting this market because it was difficult to obtain respondents who were familiar with the brands and had purchased from them. Although most respondents were familiar with all four of the brands that served as the dissertation's emphasis, we believe that their experience with one or more of the brands was more common than their previous exposure to all four. Thus, the results might not be as useful as we anticipated.

Financial Data Absence: One of the most significant obstacles our project has encountered is the inability to obtain crucial financial data, particularly market share information for the companies under analysis — 38 Graus, Conscious the Label, and Cantê and Latitid as well. One of the most important metrics for assessing how well a business is performing in its sector is the market share indicator. The lack of this indicator makes it more difficult for us to assess their competitive position in the market. Our assessment of these brands' position in the market was primarily based on the preliminary interviews, and industry experts corroborated it. It becomes challenging to evaluate these companies' respective advantages, disadvantages, and industry rankings without a good grasp of their market shares. Moreover, the inability to conduct a thorough comparative examination of the firms is further complicated by the lack of financial data, as market share numbers provide valuable insights that are crucial for strategic decision-making. In this sense, it is challenging to form accurate assessments regarding the companies' market strategies due to the absence of financial measures. This constraint must be acknowledged to fully comprehend the limitations to which the results may be applied, emphasizing the need for caution when offering definitive assessments of the companies' competitive situation.

Sample Size: While the findings of the perceptual map and the conjoint analysis offer valuable insights into this work project, it is essential to acknowledge certain limitations related to the sample used, especially in the case of conjoint analysis. Since we were looking for the typical consumer of female swimwear companies in Portugal, the scope of the people that we could reach out to complete our surveys was quite restricted. The sample size for the conjoint analysis survey is rather small, smaller than what was initially set out as desirable, consisting of just 88 individuals, which limits the study's robustness and results. It might be more challenging to capture the entire range of population variability with a small sample size like the one utilized in this project. This could result in statistical limitations that affect the reliability and validity of the findings. Moreover, while the information obtained from this sample is valuable, it is not generalizable to a wider range of groups. Moreover, within this already small sample, we noted that some respondents of the conjoint analysis survey could perhaps not have properly completed the questionnaire. Due to the nature of the survey from the Conjointly.com platform, some participants found it to be quite confusing and lengthy, which led to a few excluded low-quality responses (for example, those who didn't look through all the options or exit halfway). If we had more total responses, it could have outweighed and diminished the importance of these. Moreover, the lack of sample size also resulted in a higher P-value during the regression study. Additional study with a wider range of representative samples is then necessary to overcome these limitations. Greater validity, reliability, and generalizability of the study's conclusions might be achieved with a larger sample size.

Choice of Attributes: Another limitation of our thesis is that it cannot fully avoid the subjectivity in Conjoint Analysis. When we were drafting the Conjoint Analysis, during to the purpose was to get objective insights from the hypothesized products, however, despite our repeated attempts, we cannot avoid the subjectivity of some issues. For example, *Style* is often a highly intuitive and subjective concept with diverse personal preferences. However, due to constraints, we were limited to selecting only two pictures for the accompanying visuals. This restriction may not align with everyone's aesthetic preferences, potentially impacting the experimental results. As a result, despite being a commonly discussed point in preliminary interviews, style does not emerge as one of the top three preferred attributes, introducing a seeming contradiction. Meanwhile, *comfort* is another attribute regarding subjective feelings that is highly mentioned in our preliminary interview, and it should ideally be included in the perceptual map. However, our research market is so niche that many respondents have not even bought one piece, so it would be hard for them to evaluate the extent of comfort. Thus, we first integrated it into the conjoint attribute list. As it is a subjective attribute, no matter how we strived to polish and interpret it, instead of including it, we added one scale at the end of the survey for them to evaluate the importance of comfort by themselves, even though we of obtained an overcome regarding the importance of comfort, it is not through an objective way which is ideal.

Lab Environment: During the conduction of the perceptual map and conjoint analysis, some respondents may have chosen the more sustainable alternative because they were aware that our experiment was related to sustainability, which influences the hypothetical sustainable experimental setting. They might have, unconsciously or not, leaned towards options they perceived as more sustainable, even though their real intentions and behaviour may differ from the results obtained. Therefore, answers are influenced by this, choosing the more sustainable option. But in real life, their real behaviour may differ from this. So, although the conjoint analysis shows that they preferred the more sustainable option within the same price range, this may be unreliable due to the influence of the biased experimental environment.

6. Conclusion

This thesis dives into the complex realm of the Portuguese sustainable bikini market, revealing the multifaceted relationship between consumers and brands in their shared pursuit of sustainability. At its core, this investigation reveals a dichotomy that calls into question the foundation of sustainable consumerism.

On the one hand, there is an urgent need in Portugal for improved consumer education. Attitudes and behaviours towards sustainable purchasing decisions are lagging, particularly in the swimwear industry. This disparity emphasises the importance of consumers adopting more sustainable mindsets in purchasing decisions and their overall lifestyle practices. It is not, however, solely the responsibility of consumers. Brands must also step up to the plate, pushing the boundaries of innovation to provide more sustainable and ethically produced options. This dual effort is crucial for fostering a market where sustainability is not just a label but a lived reality.

On the other hand, this thesis identifies a paradox in the market for sustainable swimwear. Even as consumers shift towards more sustainable brands, a culture of excessive consumerism persists. When brands encourage frequent purchases of new models and designs, despite their sustainable ethos, they inadvertently perpetuate a cycle of excessive consumption. This phenomenon highlights a significant challenge: ensuring that sustainability efforts do not simply serve as a cover for consumerism. Sustainable brands must advocate for mindful purchasing to walk this tightrope — buying less, choosing well, and making the most of each swimwear piece.

Consumer education, which goes beyond simple purchasing decisions, is critical to resolving these issues. It entails developing an understanding of the product lifecycle, including care, maintenance, and disposal practices. Quality and durability should be prioritised over sheer quantity in this education. Brand transparency is also critical. Consumers must be informed about the complexities of sourcing, production methods, and supply chain. Transparency fosters trust while also empowering consumers to make informed decisions.

Finally, the Portuguese sustainable bikini market is at a crossroads. True sustainability is a difficult path requiring a collaborative effort from consumers and brands. By fostering a culture of complexity of sourcing, production methods, and supply chain of education, transparency, and mindful consumption, this industry has the potential to become a model of sustainability, setting a standard not only for Portugal but for the global market as a whole. As a result, this thesis serves as a call to action — a lighthouse pointing the way to a more sustainable future in the swimwear industry.

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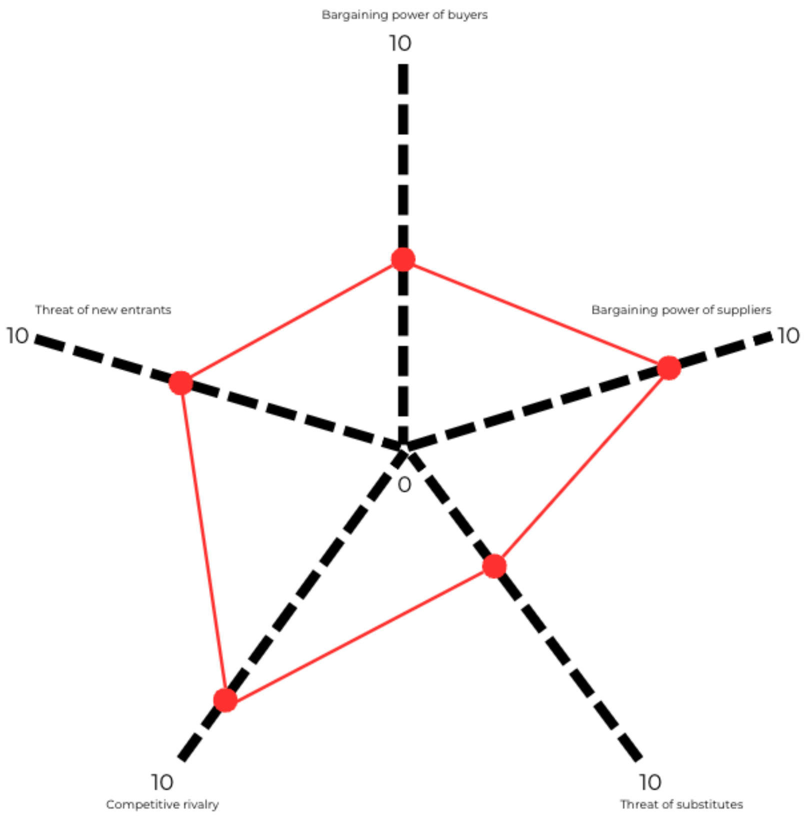
Appendix

Background

Appendix 1 – Porter’s Five Forces Analysis Diagram



Methodology

Appendix 2 – Preliminary Consumer Interviews Script

Preliminary Consumer Interviews
Introduction Hello,____. My name is ____ and I am currently pursuing a master's degree in Management at Nova SBE. For the purpose of our group thesis, about the sustainable swimwear market in Portugal, my group and I are conducting some preliminary in-depth consumer interviews, for which we appreciate your contribution very much. There are no wrong or right answers, and your responses will be kept private, so feel free to answer to the questions as honest and elaborate as you can. Once again, our group is very thankfull for your collaboration.
Part I - Demographics Q1. Age Q2. Gender Q3. Professional Situation
Part II - Category and Behavioral Understanding Q4. How often do you wear swimwear? Q5. What is your go to swimwear piece? Q6. What are the important factors when buying an swimwear piece?
Part III - Swimwear Consumption Experience Q7. Have you ever gone shopping for swimwear? Q8. What are the portuguese Swimwear brands that come to mind? Q9. When was the last time you bought a swim costume? Q10. Which brand of swimwear did you chose? Q11. What was the reason for that purchase Q12. How often do you buy swimwear? Q13. How many swimwear pieces do you currently have in your wardrobe?
Part IV - Atrributes and Sustainability Q14. Which attributes made you choose the last swimwear piece you bought (or) Which attributes would your perfect swimwear piece have? Q15. Have you ever bought a piece from a Sustainable Swimear company? If so, why was sustainability an important attribute for you? Q16. Do you normally buy pieces of clothing from Sustainable brands? Q17. What portuguese Sustainable Swimwear Companies do you know?
Part V - Perceptions Q18. From a sustainability perspective, do you think swimwear can have an impact on the environment? What do you think are the implications on that? Q19. If your favorite swimwear piece was a person, how would you descibe it? Q20. If a sustainable swimwear piece was a person, how would you descibe it?
Part VI - Preferences Q21. Which swimwear brand is your favorite and why? Q22. If you do buy swimwear from sustaibalbe brands, what is your favorite and why? Q23. Why did you chose to buy from a sustaible brand? Q24. How do you take care of your swimwear?
Part VI - Improvements Q25. Is there any thing you would add or change about the Swimwear Market in Portugal? Q26. Is there any thing you would add or change about the Sustainable Swimwear Market in Portugal? Q27. What would stop you from buying swimwear from a sustainable brand? Q28. What would make you buy more from sustainable brands and less from your other favorite brands?

Appendix 3 –Brand Interview with 38 Graus Script

Brand Interview with 38 Graus
Introduction
Hello,____. My name is ____ and I am currently pursuing a master's degree in Management at Nova SBE. For the purpose of our group thesis, about the sustainable swimwear market in Portugal (focusing on consumer behaviour and buying motiavtions), my group and I wanted to conduct some preliminary in-depth interviews witth experts from relevant brands from this industry. Once again, our group is very thankfull for your collaboration.
Part I - The Expert and the Brand
Q1. What is your current role?
Q2. How many years of experience do you have?
Q3. When was the motivation to launch this brand, what was the gap in the market the brand was trying to fulfill? And in this sense, how would you describe the Positioning and the Differentiation aspects of the brands?
Part II - The Swimwear Industry
Q4. Currently, what are in your opinion the biggest trends influencing the Portuguese swimwear market?
Q5. In your opinion, at the moment, what do you think are the more differentiating aspects of these bigger brands that affect the perception that consumers have of them?
Q6. What is your take on the relationship that Portuguese girls/women have with swimwear, in an emotional and psychological way? Making this question in the context of one of our preliminary interviews, one of the girls felt so seen and represented on the last 38 Graus' campaigns that she decided to buy one of your bikinis.
Part III - The Consumer and the Brand Strategy
Q7. How would you describe 38 Graus' Target?
Q8. In your opinion, what are the attributes that your brand offers, that are most valued by the consumer?
Q9. In our preliminary interviews it was mentioned the importance of trying out the swimwear piece before buying it. Do you and your brand feel like having a physical store is important?
Q10. Regarding Price points, what is the feedback that you have from clients? In the interviews we talked a lot about some of the girls not having the "budget" for the Portuguese "it brands" and that they are always looking for more affordable options. Knowing that there is always a concern with costs and margins, how has the brand been managing this topic? How do you justify to your clients that it's worth the investment?
Q11. Your brand's communication plan involves a lot of partnerships and collaborations with influencers. In the preliminary interviews, when we asked them to tell us the first Portuguese swimwear companies that came to mind, a lot of the girls remembered companies by remembering certain influencers. In your case they recalled Sofia Barbosa, for example. In what way is this work important and valuable to you, and how do you select the people you work with?
Part IV - The Sustainabilty Matter and the Market Outlook
Q12. Sustainability is one of 38 Graus three core values. To your brand in specific, what does Sustainability mean, and in what way is that important to you?
Q13. In your opinion are there any barriers or facilitators that could contribute to the sustainability path of swimwear companies?
Q14. Do you think there is an increasing demand for more sustainable swimwear options, or do you think, within this specific market, brands have a role in educating the consumer or to awaken that consciousness in them?
Q15. Is there any obstacle or challenge in particular that your brand is facing regarding Sustainability? Any plans to overcome them?
Q16. How do you see the future of this industry regarding sustainability? Do you think it is scalable in Portugal? In your opinion is their space in the market for sustainable products and initiatives to conquer consumers in Portugal?

Appendix 4 – Brand Interview with Conscious the Label Script

Brand Interview with Conscious the label
Introduction
Hello,____. My name is ____ and I am currently pursuing a master's degree in Management at Nova SBE. For the purpose of our group thesis, about the sustainable swimwear market in Portugal (focusing on consumer behaviour and buying motiavtions), my group and I wanted to conduct some preliminary in-depth interviews witth experts from relevant brands from this industry. Once again, our group is very thankfull for your collaboration.
Part I - The Expert and the Brand
Q1. How many years of experience do you have?
Q2. What is your current role?
Q3. Can you make a little introduction/presentation of your brand? What is your current offer in the market?
Part II - The Swimwear Industry
Q4. What are the trends shaping the Swimwear market in Portugal?
Q5. What do you think are the biggest differentiators between Portuguese swimwear brands that affect consumer perception?
Part III - The Consumer and the Brand Strategy
Q6. How would you describe your brand´s typical consumer?
Q7. Based on your personal experience, and based on the current performance of the company, what are the most important attributes consumers ponder when purchasing a swimwear piece?
Q8. Compared to other brands, in your opinion, what are the features or key characteristics that your brand offers that consumers value the most and that make them prefer you over other brands?
Part IV - The Sustainabilty Matter and the Market Outlook
Q9. What does Sustainability mean to your brand and in what ways does it translate in your operations?
Q10. Do you think Sustainability is becoming a key factor that makes consumers choose a particular brand of swimwear over others?
Q11. Do you think consumers still need to be educated about the increasing need for a more sustainable swimwear industry? Do brands have a role in raising awareness and consciousness?
Q12. Are there any challenges that your brand is facing regarding Sustainability, or any objectives that you are planning to achieve?
Q13. Do you think that more Sustainable Swimwear Products have a chance to appear in the Portuguese market and to conquer more consumers?
Q14. Can you speak to any potential barriers and or facilitators that more Sustainable options can face in this industry?

Appendix 5 – Survey Questions for the Perceptual Map

Microsoft Forms Survey for the Perceptual Map: "Consumer perceptions on the Portuguese swimwear market"		
Introduction We are a group of students from Nova SBE conducting a comparative study about portuguese swimwear brands, and want to get your perception about them and their competitors. Please access the websites links to get to know the brands. Conscious- https://consciousthelabel.com ; 38 graus- https://38graus.com/en/pages/marca; Latitid- https://latitid.com; Cantê- https://www.cantelisboa.com/pt/ 		
Section 1	1. Age	18-25 26-35 36-45 46+
	2. Gender	Female Male Other
	3. Nationality	
	4. Country of residence	
	5. Professional situation	Student Employed Self Employed Unemployed Retired
	6. Are you familiar with any of the following brands? Conscious the Label, 38 graus, Latitid, Cantê.	Yes No
	7. If yes, which ones?	Conscious the Label 38 graus Latitid Cantê
	8. Have you ever bought a swimwear piece from the mentioned brands?	Yes No
	9. Do you know any portuguese swimwear brand that is committed to sustainability?	Yes No
	10. If yes, please tell us which one and why do you think it's sustainable?	
Section 2	What's your perception about these brands on the following attributes? (Please rate them on a scale of 1 to 5, considering the following: 1 - strongly disagree, 2 - disagree, 3 - I don't have an opinion, 4 - agree and 5 - strongly agree.) 11.Design - products are cool and follow trends 12. Fabric - fabric origin from sustainable sources 13. Quality - products have good quality and last long 14. Sustainability - brand values and actions 15. Price - good relation between price and value of the product	1 2 3 4 5 Concious the label o o o o o 38 Graus o o o o o Latitid o o o o o Cantê o o o o o

Appendix 6 – Survey Questions for the Conjoint Analysis

Microsoft Forms Survey for the Perceptual Map: "Consumer perceptions on the Portuguese swimwear market"					
Introduction Welcome to this study! The study is totally anonymous. We are a group of students from Nova SBE conducting a conjoint study about portuguese swimwear brands to look into people's purchase motivation and preference. It will require less than 5 minutes of your time. We appreciate your participation. Thank you					
Section 1	1. With which gender do you identify with?	Female Male Other			
	2. How old are you?	Less than 18 18-23 24-29 30-35			
	3. How much is your disposable income every year (euros)?	8k or less 8k-10k 10k-12k 12k and more			
	4. Have you ever bought a swimwear from a brand with sustainable practices?	Yes No			
	5. How do you consider your own personality?	Very introverted o o o o o Very extroverted			
Section 2	In the following pages, you will encounter three swimwears with different attributes, please choose one that best suits your preference. If there is not, please click "none of the above". Let's go for the journey! Thank you 6-24. Which of the following Swimwear would you choose?		**Product A**	**Product B**	**Product C**
		Style	Solid Color and minimalism	Solid Color and minimalism	Colorful and unique
		Fabric Origin	Normal nylon and polyester	Normal nylon and polyester	Fabrics made form recycled materials (Econyl)
		Packaging	Recycled tiny paper package	Recycled tiny paper paper package	Plastic package
		Lifespan	1 year	Half na year	2 years and more
		Shipping	DHL Standard	DHL Go green	DHL Go green
		Eco-labels and Sustainable Certification	With	With	Without
		Price (Top&Bottom with Package and delivery)	125	99	129
Section 3	25. Identify the importance of the sustainable attributes when you purchase a bikini	Very important o o o o o Very unimportant			
	26. Identify the importance of the confort when you purchase a bikini	Very important o o o o o Very unimportant			

<u>Perceptual Map Analysis</u>

Appendix 7 – Perception points

	Brand	Design	Fabric	Quality	Sustainability	Price	FAC1_1	FAC2_1
1	Conscious	3.70	3.87	4.12	4.16	4.16	.33210	-.78624
2	38 Graus	4.39	3.38	3.87	4.12	4.12	-.05164	1.46075
3	Latitid	4.16	4.39	3.38	3.87	3.87	-1.33348	-.43864
4	Cantê	4.12	4.16	4.39	4.39	4.39	1.05303	-.23587

Conjoint Analysis

Appendix 8 – Ideal Model of Conjoint Analysis

Style	Fabric Origin	Packaging	Lifespan	Shipping	Eco-labels	Total Price	Rank
Colourful and unique	Econyl	Recycled tiny paper package	2 years and more	DHL Standard	With	69€	1
Colourful and unique	Econyl	Recycled tiny paper package	2 years and more	DHL Go Green	With	69€	2
Colourful and unique	Econyl	Plastic package	2 years and more	DHL Standard	With	69€	3
Colourful and unique	Econyl	Plastic package	2 years and more	DHL Go Green	With	69€	4
Colourful and unique	Econyl	Recycled tiny paper package	2 years and more	DHL Standard	With	65€	5