



The Effects of Website Design Elements on the Customer Experience in Fast-fashion Online Shopping

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“We see our customers as invited guests to a party, and we are the hosts. It’s our job every day to make every important aspect of the customer experience a little bit better.” – **Jeff Bezos, CEO of Amazon.**

Abstract

Title: The Effects of Website Design Elements on the Customer Experience in Fast-Fashion Online Shopping

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Keywords: online shopping, customer experience, online customer experience, website, fashion, fast-fashion, retail, clothing, clothes, e-commerce, Portuguese consumer

In an era in which online shopping is becoming increasingly important, companies' success depends on the ability to include website design elements on products' webpages to evoke effective customer experiences. These elements provide not only information but also entertainment, mimic sensory experiences and human interactions from the offline world.

Based on past literature investigation, an online survey, four customer interviews, and a sense-check expert interview, the author approaches how can companies use the different website design elements (descriptive detail, bulleted features, product image, lifestyle product image, zoom picture, product video, customer reviews, recommendation algorithm, content filters, chatbots, chatlines, smart fitting technology, return policy and shipping information) to build powerful online customer experiences (informativeness, entertainment, sensory appeal, and social presence) in shopping for fast-fashion clothing brands for Portuguese consumers.

The findings offer significant theoretical contributions and actionable managerial implications to customer experience. Firstly, companies should focus on informativeness and entertainment, followed by sensory appeal and social presence. In order to build informativeness experiences, companies need to focus on descriptive detail, product images, lifestyle product images, zoom images, customer reviews, and recommendation algorithms. The lifestyle product image, zoom image, product video, customer reviews, recommendation algorithm, and content filters build entertainment experiences. For the sensory appeal experience, companies should use product images, zoom pictures, and product video. Moreover, descriptive detail, product image, recommendation algorithm, chatbots, chatlines, smart fitting technology, and return policy information should be presented for social presence.

Resumo

Título: Os Efeitos dos Elementos dos Websites na Experiência do Consumidor na Compra de *Fast-fashion* Online

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Palavras-chave: compra online, experiência do consumidor, experiência online do consumidor, website, moda, roupa, *fast-fashion*, retalho, comércio online, consumidor português

Numa era em que as compras *online* estão a tornar-se cada vez mais importantes, o sucesso das empresas depende da capacidade de incluir elementos nas páginas *web* para evocar experiências do consumidor eficazes. Esses elementos não só fornecem informação, mas também entretenimento, imitam experiências sensoriais e interações humanas do mundo *offline*.

Com base em literatura passada, num questionário online, quatro entrevistas a consumidores e uma entrevista a um especialista na área, o autor aborda como as empresas podem usar os diferentes elementos do website para criar boas experiências online para os consumidores portugueses na compra de roupa *fast-fashion*.

Os resultados oferecem contribuições académicas e empresariais para a experiência do consumidor. Em primeiro lugar, as empresas devem focar-se na informação e no entretenimento, seguido do apelo sensorial e presença social. Para construir experiências informativas, as empresas precisam de evidenciar detalhes descritivos, imagem do produto, imagem *lifestyle* do produto, imagem zoom, avaliações de clientes e algoritmo de recomendação. A imagem *lifestyle* do produto, imagem zoom, vídeo do produto, avaliações de clientes, algoritmo de recomendação e filtros de conteúdo alavancam a experiência de entretenimento. Para a experiência de apelo sensorial, as empresas devem usar imagens do produto, imagens zoom e vídeos do produto. E para a experiência de presença social devem usar detalhes descritivos, imagem do produto, algoritmo de recomendação, *chatbots*, *chatlines*, tecnologia “descobrir o tamanho” e a informação da política de troca e devolução.

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List of abbreviations

CAGR - Compound annual growth rate

R software - software for statistical computing and graphics

e.g. - *Exempli gratia*

et al. - *Et alii*

R² - R squared: Goodness of fit measure

β - Standardized regression coefficient

ρ - p-value

1. Introduction

1.1. Research topic

Allowing consumers to shop at any time while having access to a large selection of products that can be easily compared are just a few factors that make e-commerce attractive and increasingly widespread (Eurostat, 2019). Recently, with the Covid-19 pandemic, many people who never bought online were almost forced to do it, and, although still difficult to determine, a positive impact on the future of online sales is expected.

The reinforced consumer power determines the importance of satisfying online experience when capturing and retaining customers in a competitive environment. Studies show that nearly half of the customers who abandoned transactions did so due to poor website performance (Madu, 2004). A study by Salesforce Research (2019) showed that 60% of consumers who stop buying at a particular brand/company do so because one of their competitors provided a better experience. Additionally, an unpleasant purchasing experience can also affect how consumers perceive a certain brand (Constantinides, 2004). Experience-driven firms see almost double annual growth in customer retention, repeat purchase rates, and customer lifetime value when compared to other businesses (Fenty, 2018). Additionally, according to market research by Forrester, the leading brands in retail customer experience are growing much faster than the remaining ones (Manning, 2016), and it is considered a key determinant of long-term success (McCarthy & Schadler, 2014). Thus, understanding the role of customer experiences at each stage of its journey is of critical importance for retailers to survive and thrive in this technology-intensive environment (Grewal & Roggeveen, 2020).

This dissertation aims to understand fashion brands' online customer experience since the fashion market is the largest segment in e-commerce worldwide. By 2023, the global e-commerce fashion segment is projected to grow, from 531.25 billion dollars in 2019 to 672.71 billion dollars, expecting a compound annual rate of 11.48%, including the effects of Covid-19 (The Business Research Company, 2020). Fashion is one of the most challenging areas, as it is quickly impacted by the shifting global economy, as well as the different trends. Therefore, it requires retailers across the world to adapt to these rapid changes. Different segments need to be distinguished within the fashion industry context since their characteristics and values are dissimilar. The fast-fashion industry is defined as affordable fashion design, which undergoes frequent assortment changes (Caro & Martínez-De-Albèñiz, 2015). On the other hand, the

luxury segment has a discriminating nature that creates some friction with the “openness” of the internet (Shen et al., 2016), and, consequently, it has been slowly embracing the e-commerce market. For these reasons and to have more significant results, the present research will focus on the fast-fashion industry, given that it is more developed in the world of online shopping.

Although e-commerce penetration is an essential factor in businesses and economies, Portugal has been slowly keeping up with these changes. Only 44,8% of Portuguese people make online purchases, showing a big discrepancy with the European Union’s mean (72%) (European Commission, 2018). Furthermore, the frequency of online purchases is, on average, very low (between two to three times a year) (Abecasis et al., 2018). Moreover, Portugal presents a much higher gap between internet adoption and e-commerce penetration than other European countries (Abecasis et al., 2018). This gap shows that Portuguese companies have not yet been able to generate a functional ecosystem and create experiences that lead consumers to buy online. Therefore, there is an opportunity that needs to be explored with a local approach in Portugal.

1.2. Problem statement

The growing popularity of online shopping has revealed the fundamental need for businesses to distinguish themselves in a competitive online environment. Online presence and the customer experience in a website will affect a company’s visibility and dictate their chances of success (Novak et al., 2000). However, there is still limited knowledge regarding the factors that contribute to a compelling online customer experience in shopping for fashion clothes. Therefore, online retailers should understand the impact that each website element has on the online customer experience to understand how to use them properly and, consequently, to influence consumers’ online purchase experience positively.

Thus, this dissertation will address some of the website design elements used in the fast-fashion clothing online market, with the aim of identifying which are essential elements for Portuguese customers and, consequently, to verify which ones can bring more benefits to the fast-fashion businesses. Additionally, an analysis will be conducted to evaluate to what extent the most relevant website design elements impact the customers’ online experience when shopping for fast-fashion clothing, in order to be able to state which elements build the online customer experience.

The present research purpose leads to the following research questions:

RQ1: What are the website design elements used by fast-fashion clothing brands? Which are general and specific to this sub-industry? Which ones are more important for Portuguese customers?

RQ2: What is the impact of each website design element on the online customer experience? Which experience dimension matters the most in shopping for fast-fashion clothing online?

This research is based on an explanatory approach, using both primary and secondary data collection. Secondary data was collected from the most distinguished academic articles and other data sources. Primary data was gathered through an online customer survey, customer interviews, and a sense-check expert interview.

1.3. Academic and Managerial Relevance

This dissertation has both academic and managerial relevance. Regarding academic relevance, the traditional focus of online academic studies (overall quality of service) has been shifting towards exploring the online customer experience (Nambisan & Watt, 2011). One of the reasons for this shift can be the increasingly dynamic and interactive dimensions of websites, and research proposes that exceptional online experiences can positively affect consumer online behavior (Bridges & Florsheim, 2008). However, much remains to be explored and understood. Some research has studied website designs' effects, only distinguishing search goods from experimental goods (e.g., Bleier et al., 2019). Though, in the search goods where clothing is included, buying online a pair of jeans, a book, or a smartphone are entirely different situations that need to be analyzed separately. Therefore, this study will provide empirical evidence of website design elements' effectiveness in the online experience on the fast-fashion clothing landscape.

For managerial contribution, this dissertation aims to solve the problem of having bad experiences when using a website for online shopping since there is evidence that it is stopping customers from buying on a specific website. Thus, this can help retailers understand where they should invest more resources and the importance of offering a more thoughtful online experience to their customers.

2. Literature review

2.1. The concept of the customer journey

An essential reflection when studying customer experience is the understanding of the customer journey since customer experience can be seen as the customer's touchpoints ("journey") with the firm during the purchase cycle (Lemon & Verhoef, 2016). The main purpose of studying the customer journey is to recognize the numerous routes a customer can take to complete his/her "task". The customer journey involves three decision stages: pre-purchase (need recognition, search, and consideration), purchase (choice, ordering, and payment), and post-purchase (consumption, usage, post-purchase engagement, and service requests) (Grewal & Roggeveen, 2020; Lemon & Verhoef, 2016; Puccinelli et al., 2009). Moreover, the customer journey is considered a dynamic process, and stages can be both looping and nonlinear (Lemon & Verhoef, 2016).

When entering the customer's journey, customers are exposed to multiple touchpoints, each with direct or indirect consequences on the purchase decision, customer behavior, and overall experience. Existing studies have identified different types of touchpoints (e.g., Baxendale et al., 2015). The most recent study identified four touchpoints' categories: brand-owned, partner-owned, customer-owned, and independent touchpoints (Lemon & Verhoef, 2016). This research's main target is the brand-owned touchpoints, which are customer interactions during the experience, managed by the firm (Lemon & Verhoef, 2016). It includes all brand-owned media (e.g., advertising, websites, loyalty programs) and brand-controlled marketing mix principles (e.g., product characteristics, price, convenience, service, salesforce, packaging).

With this in mind, the author has decided to conduct this study, giving special attention to the website, a vital touchpoint that cannot be devalued and may strategically influence a unique and valuable online customer experience (Bleier et al., 2019a).

2.2. The concept of Online Customer Experience

2.2.1. Online Customer Experience

The online customer experience is a multidimensional psychological subjective response to the online environment (Klaus, 2013; Martin et al., 2015; Rose et al., 2012). Online experiences have been treated with more simplicity than physical experiences in extant research (Novak et

al., 2000), often limiting to their informativeness. However, the online experience is much more than the cognitive and affective dimensions, and it is process-oriented and not solely the outcome of consumption (Bolton et al., 2014).

Four elementary classifications are commonly studied in psychology and sociology: cognition, affect, relationships, and sensations (Anderson, 2015; Pinker, 1997). Therefore, and consistent with those classifications, online customer experience is a multidimensional construct encompassing four experience dimensions: informativeness (cognitive), entertainment (affective), social presence (social), and sensory appeal (sensory) during customer journey (Bleier et al., 2019a).

Besides being similar to the definition of customer experience, the online customer experience has dimensions that need to be more carefully analyzed since customers have neither physical contact with the product nor human contact.

2.2.2. Dimensions of Online Customer Experience

Following the information previously presented, an in-depth explanation of the online customer experience's four dimensions is needed since these dimensions will be used to analyze the online experience in the fast-fashion clothing industry.

The first dimension of the online customer experience, informativeness, is constituted by the webpage's elements that help the customer making a purchase decision (Gentile et al., 2007). It incorporates the practical aspect, being usually objective and outcome-oriented (Schlosser et al., 2006).

Entertainment is the second dimension of online customer experience, which refers to the pleasure that the webpage's experience offers to customers, comprising the fun and play of online shopping, despite its ability to facilitate or simplify a specific purchasing task (Babin et al., 1994; Childers et al., 2001; Mathwick et al., 2001). Thus, the element of entertainment can generate excitement in the webpage's visitors (Chi et al., 2009; Hsieh et al., 2014) and decrease abandonment rates in online shopping (Kukar-Kinney & Close, 2010).

The social presence experience dimension involves the warmth, amiability, and sense of human presence that a webpage provides (Gefen & Straub, 2003). Social presence infers the feeling of the existence of a human being without its physical presence, and it can increase the tangibility perceived by customers and their feeling of psychological closeness to a product (Darke et al., 2016; Roggeveen & Sethuraman, 2020). Additionally, it can increase pleasure

and excitement during online shopping (Wang et al., 2007), as well as brand loyalty and purchase intentions (Cyr et al., 2007).

Lastly, the sensory appeal comprises features that can stimulate the senses of “sight, sound, smell, taste, or touch” (Gentile et al., 2007). Although the online environment restricts the possibility of some sensory experiences, sensations can be induced by the imagery (e.g., pictures, videos) (Elder et al., 2017). Consequently, it can affect perceptions of beauty and pleasing aesthetics (Schmitt et al., 2015), product performance (Weathers et al., 2007), and purchase intentions (Schlosser, 2003).

2.2.3. Website design elements

After presenting the experience dimensions, it is essential to introduce the website design elements that managers can use to create product webpages. A webpage can have design elements directly related to the product and website presentation (Bleier et al., 2019a) and structural elements, such as menus, navigation, and overall organization (Kawaf & Tagg, 2017; Koo & Ju, 2010). Previous literature has found that structural elements do not positively impact customer pleasure or purchase intentions and, for this reason, will not be addressed by this study. Therefore, the study will only focus on the design elements. The design elements, which will be covered in this study, focus on the pre-purchase stage, the stage in which customers search for, considers, and decides what to buy.

In order to tackle the purpose of this research, and according to previous ones, four categories of website design elements were analyzed: verbal, visual, and combination of both (Bleier et al., 2019a). Subsequently, each design element was assigned to a category over which they have a more significant contribution.

In the category of verbal elements, everything related to the written information is included or, in other words, the way information is displayed and its linguistic style (Ludwig et al., 2013; Song & Zinkhan, 2008). In this group was already studied the descriptive detail, bulleted features, and return/exchange policy information (Bleier et al., 2019a). Descriptive detail is a brief explanation of the clothing product that can include its fabric, shape, composition, and washing details. Product bulleted features is a brief explanation of product attributes, organized by topics. The return/exchange policy information informs the customers of their possibility of returning/exchanging products, explaining how and where they can do it. Accordingly, in the fashion industry makes sense to add to these elements, the shipping information. Shipping

information is constituted by the set of delivery options, shipping costs, and the time it takes to arrive at the destination.

As far as visual elements are concerned, they are related to photography, illustrations, and graphic information (Bleier et al., 2019a; Verhoef et al., 2007). Some features have already been studied, such as product images, lifestyle photos (Babin & Burns, 1997), zoom pictures, and product videos (Bleier et al., 2019a). These features will also be analyzed in the present study. The product image is a simple and clear image of the product on a plain background. Lifestyle product image shows the product in a lifestyle context, representing a situation similar to customers' lives and often taken in natural light environments. Zoom pictures are features that allow the customer to take a closer look at the product. The products' video consists of an animated video in which the model appears using the piece of clothes, and the fact that there is movement allows the customer to assess different angles of the product.

Since expert endorsement and comparison matrices are not usually used in a fashion context, combining verbal and visual elements can be considered customer star ratings, recommendation algorithms, and content filters (Bleier et al., 2019a). Moreover, with innovations coming up in the fashion context, it makes sense also to include chatbots, chatlines, and smart fitting technology (Roggeveen & Sethuraman, 2020). Starting with customer star ratings, they are a visual sequence of stars that shows the accumulation of user-generated product ratings per total number of evaluations (Chevalier & Mayzlin, 2006). Additionally, customer reviews present customers' feedback that previously bought and experienced the product (D'Acunto et al., 2020). These reviews are usually shared by a comment and/or a picture of the product. Thus, customers' feedback will be designated by customer reviews, including both customer star ratings and written feedback. A recommendation algorithm is a tool that recommends products based on customers' current and past browsing and shopping behavior, using artificial intelligence (Lamberton & Stephen, 2016; Roggeveen & Sethuraman, 2020). Content filters are tools that allow customers to dictate what and how much content appears on the webpage – for example, “show red blouses” and “show jeans ranging from 10€ to 50€” (Hauser et al., 2009; Mathwick, 2004). The chatbots are virtual shopping assistants that return pre-programmed answers to customers throughout an artificial intelligence system to answer their common doubts (Roggeveen & Sethuraman, 2020). Chatbots provide information on, for example, the return and exchange policy, shipping conditions, order status, payment methods, and product information (e.g., replacement of sold-out products). Chatlines have a similar purpose of chatbots – answer customers' questions– but it has a human presence on the selling side

(Roggeveen & Sethuraman, 2020). Smart fitting technology enables customers to find the right size for them, based on gender, age, weight, height, belly shape, hip shape, preferred fitting, and previous purchases' sizes.

Based on this literature, for the analysis that follows, it makes sense to divide the website design elements of the fast-fashion industry as follows: product presentation (verbal and visual elements), interface technologies (combined verbal and visual elements), and other information, where the return/exchange and shipping information are included.

2.3. Industry context: Application to the online fast-fashion industry

Market overview

By giving an overview of the apparel industry, the apparel industry is seen as one of the “outstanding economic engines in history” (Mehrjoo & Pasek, 2014). This industry has been radically evolving over the last years due to retail consolidation, globalization, and e-commerce (Mehrjoo & Pasek, 2014). The apparel retail industry comprises the selling of all womenswear, menswear, and childrenswear.

Fashion apparel is essentially the cultural construction of personality, identity, and lifestyle. For a better understanding, the fashion industry can be divided into five segments: haute couture & couture, high-end fashion, premium/bridge, mid-market, and value/mass-market (where the fast-fashion industry is included) (Amed et al., 2020). Overall, the industry is polarized, with both luxury and value/mass-market players acquiring shares with a growing number of customers and choosing to make more “investment” acquisitions opting otherwise for value. The top 20 players with the highest economic profit represent more than the entire industry's combined economic profit, most of which belongs to the luxury segment. However, the two leading groups of this top, in 2018, were not luxury brands, being Nike (with 2.980 million dollars) and the Spanish multinational clothing company, Inditex (with 2.910 million dollars). These companies profited nine times more than the last company on the list (Amed et al., 2020). The fast-fashion phenomenon has substantially impacted the fashion industry (Bhardwaj & Fairhurst, 2010). Fast-fashion is often defined by fashionable design at affordable prices, with quick response and frequent assortment changes (Caro & Martinez-De-Albèñiz, 2015).

Moving on to online retail, or often called e-commerce, this concept is the process of buying and selling products or services through electronic systems (Laudon & Traver, 2016). E-commerce is the fastest-growing retailing segment, and we expect to be the largest growth

driver in fashion sales in Europe (Namysł et al., 2019). There were 7 million e-commerce Portuguese consumers in 2019, and fashion is the biggest category by Portuguese net sales (EcommerceDB, 2020). Since it was not possible to collect data exclusively from Portugal, data from the Southern Europe region will be used, where Portugal, Spain, Italy, and Greece are included. The Southern European region has the fastest expected growth in online fashion sales (CAGR 2017-2022: 15.7) comparing with the rest of Europe. However, it will remain the region with the lowest online penetration (6% in 2017 and 12% in 2022) due to the strong forecast for online sales growth across the entire continent (Namysł et al., 2019). The total online fashion apparel market was worth 5.3 billion euros in 2017, and 10.9 billion euros is expected in 2022 (not accounting for the Covid-19 effects).

The average spending on fashion apparel, including online and offline purchases, is 662 euros per capita, with online accounting for 211 euros per buyer. Additionally, 60% of shopping events begin online (Thinkwithgoogle, 2020), and 62% of online customers shop at least once a month, 26% once a week, and 3% once a day (Episerver, 2019). Positive user experiences play an essential role in online sales since the cost of switching from one retailer to another is incredibly reduced in the online environment when compared to the physical environment (Watkinson, 2013).

Website design elements and the online customer experience in shopping for fast fashion online

This research will assess the effect of each website design element on the online customer experience. Thus, this section aims to address what has been studied so far on the fast-fashion industry's topic and what effects are expected after implementing the methodology used.

There are two categories in the product presentation: verbal (descriptive detail and bulleted features) and visual (product image, lifestyle product image, zoom picture, and product video). For verbal elements, past research showed that, in general, showing more attribute information increases purchase intentions and product evaluations (Cooke et al., 2002; Hauser et al., 2009) and positively impact informativeness, social presence, and sensory appeal experience dimensions (Bleier et al., 2019a). Both bulleted features and descriptive detail shape the informativeness dimension (Bleier et al., 2019a).

Visual information is expected to play an important role in purchase decisions and the overall online experience of fashion products. This happens because visual elements involve considering the haptic information: color, fabric's texture, fitness, and vision of the person in the piece of clothes (Jai et al., 2020). Presenting the products using static images is among the

most used presentation approaches on apparel websites. Researchers have found that more quantity and larger product's high-quality photos may provide a better virtual product experience since it increases the perception of evaluating a product, the mental image, and the purchase experience (Jiang & Benbasat, 2007; Kim & Lennon, 2008; Maier & Dost, 2018). However, for product images, there is no evidence in which dimension exerts more effect. Lifestyle product images exert their most substantial effects on the social dimension, followed by the sensorial and informativeness dimensions, so it can be assumed that the product image will have similar behavior (Bleier et al., 2019a). From an online fashion service quality perspective, graphic style (e.g., color, consistency, and fashionability) and product presentation features, such as zooming, 2D product visualization, 3D rotation, and product video, are found to be crucial dimensions for apparel retail websites (Jai et al., 2020; Kim et al., 2006). Both zoom pictures and product videos have positive and significant effects on all the experience dimensions. Product video employs its strongest effects in the sensorial dimension since it increases the webpage's vividness and creates sensations that imitate real products, ultimately enhancing customers' preferences and willingness to pay (Bleier et al., 2019a; Roggeveen et al., 2015). Specifically, videos, including human voices, can serve as cues for human characteristics and influence the social presence and sensory appeal (Grewal et al., 2017; Nass & Moon, 2000).

In the interface technologies category, this study explores the following elements: customer reviews, recommendation algorithm, content filters, chatbots, chatlines, and smart fitting technology.

Customer reviews have received some empirical attention, even though only focused on their effects on purchase decision, without considering underlying mechanisms (e.g., Bleier et al., 2019b; Hauser et al., 2009; Ludwig et al., 2013; Zhu & Zhang, 2010). Shen and colleagues (2018) found that online customer star ratings (included in the customer reviews) significantly influence consumer decision time, which means that consumers feel less difficult to decide to buy or not buy a particular product when the ratings are either very high or very low, respectively. Moreover, over 98% of fashion shoppers mentioned being important the presence of reviews in order to have access to an honest opinion about the item they pretend to buy (Smales, 2019). However, reviews were considered less important when buying from trusted online stores with strong return policies (Smales, 2019). In past research, customer reviews with star ratings showed positive effects across all the experience dimension (Bleier et al., 2019a).

The recommendation algorithm's effects on the informativeness dimension have already been studied. This element enables shoppers to visualize a higher range of products with complex decision rules, using low cognitive effort (Todd & Benbasat, 1994). Additionally, it allows the customer to see a large number of alternatives, which improves decision quality by enabling them to make decisions with more accuracy, which consequently improves their experience (Haubl & Trifts, 2000; Singh & Ginzberg, 1996). According to past research on online shopping, the use of the recommendation algorithm is expected to positively influence the informativeness and entertainment experience of the fast-fashion industry (Bleier et al., 2019a).

As far as content filters are concerned, literature stresses that this element helps customers quickly search and find the type of product they are looking for since it shows similar products and leads costumers to enjoy much more of their browsing and shopping experience (Smales, 2019). According to past findings, content filters are predicted to affect the entertainment and social presence dimension positively.

Furthermore, past research analyzed the importance of including chat options on websites since it enables visitors to interact directly with firms, expressing their social presence. Other studies found that, in the purchase phase, the reduction of uncertainty associated with autonomous shopping is fundamental (Faraji-Rad & Pham, 2017), which can be achieved with assistance through chatbots and chatlines (de Bellis & Johar, 2020; Hildebrand & Bergner, 2019). In summary, chatbots and chatlines are expected to have a positive effect on the social presence experience.

The previous studies on smart fitting technology only measured the impact on conversion rates (Orendorff, 2019). However, it is likely to positively influence the perceived online experience, more precisely on informativeness and social presence, since it will help customers choose the right size.

Concerning return policy and shipping information, no significant effect was identified on past research's online customer experience. Thus the same will be expected in fast-fashion shopping (Bleier et al., 2019a).

Table 1: Consolidation of other authors' findings

	Informativeness	Entertainment	Social presence	Sensory appeal
Product presentation				
Verbal				
Descriptive detail	✓		✓	✓
Bulleted features	✓			✓
Visual				
Product image	✓		✓	✓
Lifestyle product image	✓		✓	✓
Zoom picture	✓	✓	✓	✓
Product video	✓	✓	✓	✓
Interface technologies				
Customer Reviews	✓	✓	✓	✓
Recommendation algorithm	✓	✓		
Content filters		✓	✓	
Chatbots			✓	
Chatlines			✓	
Smart fitting technology	✓		✓	
Other information				
Return policy information				
Shipping information				

Legend:

- ✓ - It was found positive effects on the selected experience dimension
- ✓ - The website element has its strongest effects on the selected experience dimension
- - Do not exist past concrete research of the website element on the selected experience dimensions

Source: author

As far as the topic of online customer experience is concerned, until now, only a general study covering search and experience goods was conducted (Bleier et al., 2019a). Clothing is included in the search goods category. However, the research has been conducted by aggregating different types of search goods, not including clothing, so this research's results may differ. These researchers have found that the informativeness dimension seems essential and useful on search products and well-trusted brands (Bleier et al., 2019a). The same findings are expected to be applied to the apparel shopping products and brands. Social presence and sensory appeal are less critical for search products (Bleier et al., 2019a). When shopping for clothes online, the sensory appeal has expected to have a substantial effect since it is the way to evaluate the product's characteristics and visual appeal. In addition, entertainment has proved to be important, having a more significant impact on purchase and being a critical experience dimension on apparel shopping (Bart et al., 2005; Pavlou et al., 2007).

As it is possible to see in Table 1, according to past research, informativeness can be built by providing descriptive detail, bulleted features, lifestyle and zoom images, product video, customer reviews, recommendation algorithm, and smart fitting technology, which means that

these website elements help customers with their purchase decision. Additionally, bulleted features were found to be the element with the strongest effects on this dimension, followed by descriptive detail and recommendation algorithm (Bleier et al., 2019a).

Building entertainment experiences requires zoom pictures, product video, customer reviews, recommendation algorithms, and content filters. Although these website elements exert some effect on this dimension, none of them seems to be unique or more suitable to shape it than other dimensions.

On the other hand, social experiences are constituted by the following elements: descriptive detail, product, lifestyle, and zoom images, product video, customer reviews, content filters, chatbots, chatlines, and smart fitting technology. The lifestyle product image is the element that showed the most substantial effect on this dimension (Bleier et al., 2019a). A more conversational linguistic style increases the perception of the website's communication and responsiveness, which enhances social presence, website effectiveness, and encourages purchases (Song & Zinkhan, 2008).

Lastly, to shape sensory experiences can be used descriptive detail, bulleted features, product, lifestyle and zoom images, product video, and customer reviews, since these elements are expected to positively influence the mentioned experience dimension. Moreover, product videos are the elements that exert the strongest effect on this dimension (Bleier et al., 2019a).

Now it is needed to understand if these findings are actually applied to the fast-fashion industry context.

3. Methodology

3.1. Research Design

In order to get the information necessary to accomplish the dissertation's purpose, both secondary and primary data were collected. An extensive review of past literature and existing reports was conducted since analyzing secondary data before performing the primary research has numerous advantages (Schiffman & Wisenblit, 2015). Additionally, secondary data helped clarify and refined definitions, knowledge, and objectives for the study and provided ideas about selecting research tools and the difficulties that might occur during the study's subsequent stages.

After collecting the academic literature, it was time to define which methods were necessary to answer the defined research questions. For the first question, general and specific website design elements used by fast-fashion brands were identified. In order to accomplish this purpose, primary data was collected by observation of several fast-fashion brands' websites. Additionally, other fashion sub-industries' websites and even websites of other industries that are more significantly present in the Portugal market were observed to develop a list of the elements used for analysis and discussion.

After having well-defined the website design elements used for fast-fashion, the second research question was assessed, which proposes understanding the impact that each website design element has on the online customer experience's four dimensions. With this in mind, the primary data was collected through an online survey and interviews, answered only by Portuguese consumers, according to this dissertation's scope. In order to analyze the information and draw conclusions, a multiple regression analysis was conducted. Additionally, to have another view of the subject, some questions were also asked to an expert through a sense-check interview.

3.2. Data collection

3.2.1. Secondary data collection

To clarify what was studied about online customer experience and website design elements, years of research on these topics were reviewed. The mentioned research was published in grade-A journals, such as the Journal of Marketing, Journal of Consumer Research, Journal of

Marketing Research and Marketing Science, some grade-B journals, mostly in Journal of Retailing, and some insights from other specialized journals and handbooks. Further, in the analysis and discussion topics, the information presented in grade-A journals, research data websites, and articles with specialization in the fashion industry were also used.

3.2.2. Primary data collection

3.2.2.1. Website design elements in different websites

This data collection aimed to consolidate the information regarding fast-fashion brands' websites and the respective website design elements. Firstly, the top 10 fashion apparel online stores, which were all fast-fashion websites, were analyzed (Zara, La Redoute, H&M, Bershka, Pull and Bear, Mango, Massimo Dutti, Showroomprive, and Asos) (ecommerceDB, 2020). Secondly, two online fashion platforms related to premium and luxury fashion, not included in the top 10 (El Corte Inglés and Farfetch) and three luxury brands websites from the top 20 biggest players in the fashion industry worldwide (Louis Vuitton, Gucci, and Hermès) (Amed et al., 2020) were assessed. Lastly, the top 3 websites by net sales in Portugal from other industries were analyzed: Electronics & Media (Apple, Fnac, Amazon), Food & Personal Care (Continente, Jumbo, Sephora), Furniture & Appliance (Ikea, Worten, Amazon) and Toys, Hobby & DIY (Aki/Leroy Merlin, Thomann, and Decathlon) (ecommerceDB, 2020).

3.2.2.2. Online Survey

Explanation and purpose. The online survey allowed to establish the main connections and inferences of the study. Its primary purpose was to understand Portuguese consumers' online behavior and the impact of website design elements on customers' online experience, collecting quantitative data to test cause-and-effect relationships, to answer the research questions.

The survey methodology was chosen since it is an efficient method to collect a larger sample (Saunders et al., 2019). Besides, this methodology allows several individuals to respond simultaneously, in short periods, and at different geographic points (Saunders et al., 2019). However, online surveys have some limitations. There is a risk that participants can misinterpret questions (since there is no possibility to explain the questions to respondents, nor to clarify their doubts). In addition, participants are only asked about a limited amount of information. There is also no guarantee of honesty in the answers given, leading to incorrect inferences for the population studied. A filtering criterion was added to overcome this situation and verify the

validity of the responses, called attention check, which asked the participants to select a predetermined option.

Survey structure. The survey was developed on the Qualtrics platform, and it was translated to Portuguese since the scope of this study was Portuguese consumers. The main questions and variables used have been adapted from previous studies to ensure their reliability and validity. Three sections were developed:

- 1) Demographics: In the first section, the demographic characteristics of the respondents were gathered, namely, gender, age, nationality, net income, and occupation. This data was later used to draw the sample profile.
- 2) Online apparel purchase: In this section, respondents were asked about their online apparel purchase habits, which allowed the author to divide them into shoppers and non-shoppers in an online environment. Shoppers were asked about their reasons, spending, and frequency of purchase. Non-shoppers were asked why they never shop online, whether they would like to start doing so, and what would make them change this behavior. Respondents who never experienced an online apparel purchase and never interacted with a fashion clothing website were directed to the survey's end.
- 1) Online customer experience in shopping for fast-fashion clothing: This section was only presented to participants who have already experienced an online apparel purchase or interacted with a clothing website. This section was created to measure website design elements' impact on the four dimensions of customers' website experience in the fast-fashion industry (informativeness, entertainment, social presence, and sensory appeal). Additionally, respondents were asked about their ideal online customer experience and were asked to rank the most important website design elements.

More information regarding the specific questions can be found in Appendix 1.

Measures used. In order to achieve the surveys' purpose, both open-ended and closed-ended questions were used, according to each question goal. Open-ended questions require answers in the respondent's own words, intending to obtain the participants' sincere opinion, without any external influence. Although this type of question produces more insightful information, the data results are more difficult to code and analyze (Schiffman & Wisenblit, 2015). Closed-ended questions require respondents to check the most appropriate answer(s) to their opinion/behavior from various options through single- or multiple-choice questions. These questions are relatively simple to tabulate and analyze. However, the answers are limited to the

author's alternative responses (Schiffman & Wisenblit, 2015). Three types of close-ended questions were performed: Likert scales, 101-continuum scale, and ranking questions. Detailed information on the chosen types of questions can be seen in Appendix 2.

Sample. Before publishing the online survey to the broad public, a pre-test was conducted with 5 participants to minimize errors and make sure that the survey was clear and perceptible. According to the pre-test survey feedback, some changes were made to improve the survey's quality. The survey was shared through a direct link within online platforms such as Facebook, WhatsApp, Instagram, and LinkedIn. This survey data was collected during two weeks (from 11 November 2020 to 25 November 2020). A total of 172 responses were collected, but 26 responses were excluded as they did not follow the filtering criteria, meaning that those participants did not correctly answer the attention questions shown throughout the survey. Therefore, a total of 146 complete and valid responses were gathered and, consequently, analyzed. Of the 146 respondents, 101 have already purchased clothes online (70%), and 45 never did it (5 out of 45 likes to buy clothes and have already interacted with clothing websites). The majority of the shoppers (60%) do a small part of their clothing purchases online, 23% do about a half, and 17% do most or all. Moreover, 59% of participants shop online less than once a month, and 25% do it once a month.

Data analysis. The online survey provided both quantitative and qualitative data for the analysis. Open-ended answers were aggregated, culminating in a summary of the findings. As for the close-ended answers, some of them were used to add more insights, and others to perform the explanatory analysis, further presented.

3.2.2.3. Customer interviews

Explanation and purpose. In order to complement the results obtained by the survey, qualitative research was performed, namely interviews with some Portuguese consumers. Interviews enable richer and more detailed responses to the participants' true feelings and behaviors, exploring the topics of interest (Saunders et al., 2019; Schiffman & Wisenblit, 2015). The methodology adopted was in-depth interviews between a single respondent and the researcher. It is a more informal approach that offers more flexibility to explore the topics of interest, meanwhile using standardized questions to tackle the same points in all interviews. The semi-structured guideline was composed by 16 questions, grouped into three main topics, presented in Appendix 3. The topics explored were:

- 1) Purchase frequency
- 2) Overall online shopping (reasons and satisfaction)
- 3) Website preferences
- 4) Experience's dimensions evaluation

Interviewees. A total of 4 customer interviews were conducted over telephone calls that took between 30 to 45 minutes. The participants were students and workers, four females and one male, aged between 22 and 30. To better understand the customer's feelings, the interviews were carried out among consumers with different purchase online frequencies, focusing on people who already have some online fashion shopping experience, doing between one to three purchases per month. The detailed characterization of participants can be found in Appendix 4.

Data analysis. After interviews were conducted, the answers were analyzed, and some recurrent "themes" were identified from the interviewees' answers. A summary of the customers' findings and recommendations was consolidated in the analysis chapter, and the detailed data collected is organized and grouped in Appendix 4.

3.2.2.4. Sense-check expert interview

Explanation and purpose. To better interpret results and deepen the subject, a sense-check expert interview was conducted. A semi-structured interview methodology was chosen.

Interviewee. The interviewee was Filipa Pereira, who already has eight years of experience as a product manager, currently working for Farfetch Portugal (for five months), a luxury e-commerce platform seeking to be the market leader in its segment. The interview was conducted via e-mail, and the guideline was composed of 10 questions divided into two main themes: online customer experience (notions, dimensions, the importance for companies and customers) and website design elements (see Appendix 5).

Data analysis. After the interview, responses were analyzed, and, consequently, a summary of the insights of the expert interviewed was made. The data collected is presented in Appendix 6.

3.3. Explanatory analysis

Explanation and purpose. An explanatory analysis was carried out to identify the cause-and-effect relationships between the factors covered by the study.

Sampling methods. Only those who had already purchased fashion clothes online or who never done so but were familiar with fashion websites were exposed to the questions used in this section. Besides that, attention questions were added, so only those who answered these questions correctly were selected for analysis, giving 106 responses. According to the literature, for multiple regression analysis to be effective, the minimum sample number should be 50 complete responses, preferably 100, for most situations. Moreover, it is recommended to have between 15 and 20 observations for each independent variable (Hair et al., 2018). Since the online survey participants were divided into two groups of website design elements, it was possible to gather 53 complete observations for each independent variable (see Appendix 7), representing a significant sample size, which allowed relevant conclusions (Hair et al., 2018).

Variables and measures. Since one of the objectives of this study was to measure each website design element's effect on the four dimensions of the online customer experience (informativeness, entertainment, social presence, and sensory appeal), there is a multiple regression equation for each dimension. The dependent variables are the respective dimension, and the independent variables are the different website design elements. In order to measure these cause-effect relationships, each website design element was explained, and the online survey's participants were asked to rate their level of agreement with the showed statements on a scale from 0 to 100 (0 - "Strongly disagree", 100 - "Strongly agree"). Each dimension was measured by two statements adapted from previous research to ensure accurate measurement of the theoretical constructs (Table 2).

Table 2: Measures of experience dimensions

Informativeness Information obtained from this website element is useful. I learn a lot from using/seeing this website element.	(adapted from Bleier et al., 2019a; Luo, 2002)
Entertainment This website element is fun. This website element is enjoyable.	(adapted from Bleier et al., 2019a; Hausman & Siekpe, 2009; Luo, 2002)
Social presence There is a sense of human contact (warmth and sensibility) in this website element. There is a sense of sociability in this website element.	(adapted from Bleier et al., 2019a; Gefen & Straub, 2003)
Sensory appeal This website element conveys liveliness and is exciting to the senses. I can acquire product information on this website element from different sensory channels.	(adapted from Bleier et al., 2019a; Jiang & Benbasat, 2007)

Source: author

Data analysis. After the data were collected, it was coded and entered into the database. The R software version 4.0.3 was used to analyze the data. Before running the regression analysis,

analyze the prerequisites for a multiple linear regression was necessary, which showed that all the assumptions were met (Appendix 8). Multiple regression was then used to investigate whether each website design element's presence positively impacted the online customer experience dimensions. The data from the 13 website design elements were combined, and multiple linear regression was conducted for each online experience, controlling for frequency of purchase since it can affect the relationship between website design elements and online experience.

Reliability and validity. For reliability analysis, Cronbach's alpha was calculated to understand the acceptability of the combination of items used to represent the variables. All the variables presented an alpha higher than 0,7, which indicates that the combination of items has acceptable internal consistency for all subscales, meaning that the scales used were reliable, see Appendix 9 (George & Mallery, 2016). Validity is measured in multiple regression analysis by the adjusted coefficient of determination (adjusted R^2) and overall F-test (Sobol, 1991). In the model selected, the adjusted R^2 showed moderately high values (informativeness 0,578; entertainment 0,852; social presence 0,865; sensory appeal 0,873). For example, this means that 85,2% of the total variability of entertainment is jointly explained by all the independent variables chosen (description detail, bullet features, product images, etc.). Informativeness showed the lower value of explanation, and sensory appeal showed the high value, meaning that the sensory appeal is almost totally explained by the variables chosen. The overall F-test ensures a good fit and an overall quality of the multiple regression model (Wooldridge, 2013). All the equations presented a significant F-test at 99% confidence level (informativeness 5,751***; entertainment 20,880***; social presence 23,196***; sensory appeal 24,837***). A significant F-test indicates that the model is globally significant.

4. Analysis

4.1. Website design elements in different websites

Before analyzing the website's design elements, it is necessary to understand that online fashion's competitive landscape is formed by three distinct segments (Namysł et al., 2019). First, there are large e-commerce marketplaces that offer a wide range of products and categories, including fashion – an example of a company in this segment is Amazon. Second, large fashion-focused-multi-brand online stores offering a wide range of brands within the fashion market, such as Showroomprive. Lastly, fashion retailers establishing e-commerce capabilities, typically in the form of brand.com websites, along with their traditional offline channel.

The Southern Europe region (where Portugal is included) is dominated by brand.com stores, contrasting with the other European regions where large multi-brand online stores and large online marketplaces are leaders (Namysł et al., 2019). The market concentration, however, is still comparatively low in Southern Europe. This fact, combined with the expected high growth in online fashion sales, creates an opportunity for new entrants (Namysł et al., 2019).

Top 10 fashion apparel online stores in Portugal

This top is composed mainly by brand.com websites (Zara, Stradivarius, H&M, Bershka, Pull and Bear, Mango and Massimo Dutti), and three multi-brand online stores (La Redoute, Showroomprive, and Asos).

All the analyzed websites presented the following elements: product description (descriptive detail and/or bulleted features), product image, zoom picture or feature, recommendation algorithm, content filters, return/exchange policy, and shipping information.

Regarding verbal product presentation, the most used is descriptive detail. Depending on the website, the descriptive details are composed by a short product overview, products' composition, measures, washing details, texture, the occasion to use, country's origin, and the model's and product's size. Some websites use bulleted features with style, fit, the occasion to use, texture, and composition.

Almost all the websites often use lifestyle product image. However, this type of presentation is only used for some products, and some websites even use their customers' pictures. Product

videos are a less usual element since only three of the websites analyzed use it and only in some products.

Some websites also use customer reviews. Content filters are used on all the websites, but each has different filter options. The most common are color, size, price, and garment type, but sometimes it is also possible to filter by characteristics, material, style, the occasion to use, body fit, neckline, sleeve length, sleeve style, waist rise, collar, responsible/sustainable products and by brand. Regarding chatbots, only one website of the reviewed provides customers access to a chatbot. As for chatlines, these are only offered by five out of ten websites. Smart fitting technology is being present only in less than half of the analyzed websites.

Table 3: Websites' elements of the top 10 fashion apparel online stores in Portugal

	Brand.com						Multibrand			
	Zara	Stradivarius	H&M	Bershka	Pull & Bear	Mango	Massimo Dutti	La Redoute	Showroomprive	Asos
Product presentation										
Verbal										
Descriptive detail	Green	Yellow	Green	Yellow	Green	Green	Grey	Green	Green	Yellow
Bulleted features	Grey	Grey	Grey	Grey	Grey	Grey	Green	Green	Grey	Grey
Visual										
Product image	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Lifestyle product image	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Grey	Yellow
Zoom pictures	Green	Green	Green	Green	Green	Green	Green	Green	Grey	Green
Product video	Grey	Yellow	Yellow	Yellow	Grey	Grey	Grey	Grey	Grey	Yellow
Interfacing technologies										
Customer Reviews	Grey	Grey	Green	Grey	Grey	Grey	Grey	Green	Green	Grey
Recommendation algorithm	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Green
Content filters	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Chatbots	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey
Chatlines	Green	Green	Green	Green	Green	Green	Yellow	Grey	Grey	Green
Smart fitting technology	Green	Green	Green	Green	Grey	Green	Green	Green	Grey	Green
Other information										
Return policy information	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Shipping information	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green

Legend: This element is present in all the products This element is present in some products This element is not present

Source: author (websites' analysis)

Top luxury fashion brands and platforms in Portugal

Louis Vuitton, Gucci, and Hermès websites use descriptive detail, bulleted features, product images, and zoom pictures to present the product. Louis Vuitton does not use lifestyle product images or product videos in comparison to others. Only the Louis Vuitton website has a recommendation algorithm and smart fitting technology. Additionally, all the luxury websites studied have content filters, but less than those presented by fast-fashion brands. Moreover, none of these websites has customer reviews. Regarding chats, Louis Vuitton has chatbots, and

Gucci has chatlines. They all have a return policy and shipping information available. Fast-fashion websites are somewhat similar to the luxury segment websites. The difference is that luxury websites are not used to employ customer reviews.

As Table 4 shows, both El Corte Inglés and Farfetch present bulleted features, product images, zoom pictures, content filters, and return policy and shipping information. None of them present the product’s video, chatbots, or chatlines. What differs between these two websites is that Farfetch presents a descriptive detail (where describe in which occasions customers can use the product and reasons to buy it), a recommendation algorithm, smart fitting technology, and lifestyle images of some products. Moreover, El Corte Inglés presents customer reviews, and Farfetch does not.

Table 4: Websites’ elements of luxury fashion brands and platforms in Portugal

	Brand.com			Marketplace El Corte Inglés	Multibrand Farfetch
	Louis Vuitton	Gucci	Hermés		
Product presentation					
Verbal					
Descriptive detail					
Bulleated features					
Visual					
Product image					
Lifestyle product image					
Zoom pictures					
Product video					
Interfacing technologies					
Customer Reviews					
Recommendation algorithm					
Content filters					
Chatbots					
Chatlines					
Smart fitting technology					
Other information					
Return policy information					
Shipping information					

Legend: This element is present in all the products This element is present in some products This element is not present

Source: author (websites’ analysis)

Top 3 online stores in different categories in Portugal

First, all categories have available product pictures, return policy, and shipping information.

In general, Electronics & Media websites present the product details by bulleted features. However, some websites also present descriptive detail, zoom pictures, product videos, customer reviews, and recommendation algorithms. This category also presents comparison

matrices, a feature not presented by fashion websites, and they do not have chatbots, chatlines, or smart fitting technology.

Regarding Food & Personal Care, the websites analyzed present descriptive detail, product image, zoom pictures or feature, and content filters. However, only some of them presented bulleted features, customer reviews, and recommendation algorithms. Moreover, none have lifestyle product images, chatbots, chatlines, smart fitting technology as fast-fashion does.

Moving to Furniture & Appliance websites, descriptive detail, bulleted features, product image, zoom pictures, customer reviews, content filters, and recommendation algorithms are presented. In some of these websites, lifestyle product images, chatlines, and comparison matrices are also presented. This category works similarly to fast-fashion websites. However, they do not use product video, chatbots, nor smart fitting technology.

Toys, Hobby & DIY websites present bulleted features, descriptive detail, product image, zoom pictures, customer reviews, and content filters. Additionally, some present lifestyle product images, product videos, chatbots, recommendation algorithms, and smart fitting technology. None of these websites presents chatlines or comparison matrices. More or less, the same elements of the fast-fashion industry are used in this group, excluding chatlines.

Table 5: Websites’ elements of the top 3 online stores in different categories in Portugal

	Electronics & Media			Food & Personal Care			Furniture & Appliance		Toys, Hobby & DIY		
	Apple	Fnac	Amazon	Continente	Jumbo	Sephora	Ikea	Worten	Aki	Thomann	Decathlon
Product presentation											
Verbal											
Descriptive detail											
Bulleted features											
Visual											
Product image											
Lifestyle product image											
Zoom pictures											
Product video											
Interfacing technologies											
Customer Reviews											
Recommendation algorithm											
Content filters											
Chatbots											
Chatlines											
Smart fitting technology											
Comparison matrices											
Other information											
Return policy information											
Shipping information											

Legend: This element is present in all the products This element is present in some products This element is not present

Source: author (websites’ analysis).

4.2. Online survey

Online apparel shopping

According to the survey results, the reasons online shoppers buy online are mainly the convenience of not going to the stores (13%), the time they save (12%), the fact they can avoid crowds (12%), the ability to compare products and prices (9%), the ability to buy 24/7 (8%) and the access to a greater variety/selection (8%). Also, participants mentioned, as disadvantages of buying online, the inability to try the products (29%), the inability to touch and feel the products (21%), the delay in delivery time (13%), and the complexity of the return process (9%). Participants also stated that they prefer to look for fashionable clothing on the website and buy it in physical stores.

Participants are moderately satisfied (55%) with their overall experience in fashion clothing websites and mentioned it to be moderately easy (42%) or extremely easy (41%) to buy what they want online. Additionally, they are extremely likely (56%) to continue buying fashion clothing online.

When asked about the main characteristics that make them choose to buy at a particular fashion website, they mostly mentioned price-quality (15%), shipping price offer (13%), visual appealing/aesthetic (11%), the way the products are presented (10%) and the possibility of return and exchange (10%).

As far as non-shoppers are concerned, they mentioned that they did not buy online because of the inability to try the product (24%), the fact that products seem different from reality (20%), the inability to touch and feel (15%) and because they enjoy the experience of going to the physical stores (15%). It was also found that non-shoppers are more skeptical to start buying online, mentioning that they are only slightly likely to start doing so (46%). They also mention that they could start doing it if it was to have access to better prices (15%), to save time (12%), to access products not available in their city/country (10%), or to avoid crowds (10%).

Excluding return policy and shipping information, which is considered essential information for customers when buying any product online, the preference order of website design elements for customers are presented in the next table by product presentation and interfacing technologies (the results are similar between high frequent and less frequent shoppers):

Table 6: Preference ranking of website design elements

Product presentation	Interfacing technologies
1. Product image	1. Content filters
2. Descriptive detail	2. Customer reviews
3. Zoom image or feature	3. Smart fitting technology
4. Bulleted features	4. Recommendation algorithm
5. Product video	5. Chatlines
6. Lifestyle product image	6. Chatbots

Source: author (online survey)

What customers would improve

When asked about what could be improved in their fashion purchase online experience, shoppers mentioned many issues on product image and measures, description of the product, customer support, returns/exchanges, and shipping.

More precisely, shoppers show that they would like to have product images with the product on its own, on a person, and with different types of bodies and ordinary people using it and not only on models. They also mention that adding the model's measurements and its size could help them, and they like the idea of having an image more similar to their reality (lifestyle image). In order to better understand the product, shoppers mentioned that it would be beneficial to add videos of the product, with models of different sizes. They have also shown their dislike because the size and quality of the product are sometimes not easily noticeable by the images provided on the websites.

Regarding products' description, customers want more detailed information, measures of each piece individually and not standardize sizes (since an S, for example, changes from piece to piece). Customers denote that brands should give more prominence to customer reviews and improve smart fitting technology, personalized for each piece of clothes and not universal since sometimes it is confusing and inconclusive. The lack of quick customer support 24/7 by chat or call is also referred by some participants. Some people also stated that it is helpful to have chatlines but useless to have chatbots.

Concerning return and exchanges, customers think this information is essential and should be very well explicit on the website. Customers want simplified, easier and quicker returns and exchanges with more pickup points or have available the possibility to do it at home for free (like Zara and Mango). It is mentioned that shipping time should be improved and that the shipping cost should be more accessible.

Experience dimensions

Moving to the experience dimensions, in informativeness, the participants significantly agree that the information provided from the website design elements need to be useful (82%). Additionally, 50% significantly agree that we need to learn a lot from using/seeing the website elements. This means that the informativeness dimension has great importance on the online shopping experience (92%).

Regarding entertainment, the results are less accurate. When asked if the website elements need to be fun, 74% agreed, and 12% disagreed. However, the majority agrees (96%) that the websites should be enjoyable. Thus, shoppers (81%) think that entertainment is also an important dimension to be present on websites, giving more importance to enjoyability than fun.

The social presence dimension analyses also bring some doubts. Sixty-three percent agree that a sense of human contact (warmth and sensibility) should be present, while 13% do not agree. For 50% of shoppers, a sense of sociability is needed and for 20% is not. Overall, 60% of shoppers think the social presence dimension is essential.

Most shoppers agree that website elements need to convey liveliness and be exciting to the senses (86%). It is also crucial for shoppers to acquire product information from the website elements through different sensory channels (82%). Meaning that the sensory experience dimension is important, having nearly 80% of shoppers thinking that way.

4.3. Customer Interviews

Online apparel shopping

The interviewees mentioned numerous benefits of buying online, starting with the easiness, convenience, and comfort of the purchase at home, the wider variety compared with physical stores, the better promotions, loyalty programs (with points or packages), the easier comparison of products and the access to customer reviews that are not available in physical stores. Additionally, they do not like when the product received is not equal to the pictures shown on the websites (sometimes the fabric, texture, or color is different). They also dislike the impossibility of trying or touch the product. When asked about their preference of place of purchase, the website was stated. However, in regards to more expensive products, such as coats/jackets, one participant mentioned preferring to buy in a physical store. People interviewed will continue to shop online.

The mentioned favorite websites were Zara and Mango for women and Adidas for men. In general, the reasons to choose these websites were visually appealing and good-looking websites. Mango stands out for the way products are presented (good photos and lifestyle product images) and that all the products' measures are shown. The good quality-price, trust in the brand, and the fast package arrive with a beautiful message were also mentioned aspects that participants value when shopping from Mango online store. In turn, Zara stands out for presenting new collections with gifs and videos, which the person who mention this brand values a lot. This participant also mentioned that she also likes to use the Zara app, integrating it with the experience in-store.

When choosing a website to purchase, participants value brand recognition, brand trust, the option to have free delivery, and the possibility to return and exchange for free at home. Additionally, useful details of the products and pictures are also valued.

What customers would improve

As far as their ideal website is concern, it would have explicit descriptions of the product, bulleted features (only if it would add new information to the description), pictures from different angles, lifestyle product images, zoom options, product video, recommendation algorithm, smart fitting technology, and customer reviews. Additionally, presenting the return policy and shipping information is very important. Regarding chatbots and chatlines, most of the people interviewed mentioned that they are not necessary when they know the brand and when the full information is presented on the website. Only one of the interviewees considered to have chatlines useful.

Experience dimensions

Regarding informativeness experience, interviewees mentioned that the description (composition, country origin, measures of pieces, model's size), image, video, and zoom is necessary. About the easiness of choosing the product wanted, there are different opinions. Some participants stated that it is easy and intuitive since they have content filters to search from categories and the recommendation algorithm, which helps see similar options. Others mentioned that it is sometimes not easy because of the products' miscomprehension (colors, fabric, and texture misperceptions) and the difficulty of choosing the size (even with the smart fitting technology that sometimes is inconclusive). They also mentioned that adding the size of the model could help.

Regarding entertainment, women said that it does not need to be fun, only pleasant and enjoyable. In order to have those attributes, the navigation should be comfortable and intuitive, and the website should have attractive product images (with lifestyle product images, for example), a clean layout, content filters, and a recommendation algorithm. For men, who generally do not like to go shopping at stores because of queues and crowds, having a fun website could make the experience more enjoyable.

About social presence, interviewees think it is not fundamental, and most of them never used any help, claiming that websites have the information they require. However, it was mentioned that the best option, if we need to clarify any information, would be the chatline.

Concerning sensory appeal, it is considered very important by the interviewees. For them, the zoom, video, and pictures, in this order, are the elements that help the most to have the sense of the products' sensory appeal.

In general, participants seem to be satisfied with their overall online experience since, until now, there were not any significant issues with their purchases. They also mentioned having good searching and delivery experience. Additionally, the possibility to have free shipping costs when buying a low amount of clothes is valued. Moreover, it is essential to note that interviewees are requesting better-detailed products, images, videos, and customer reviews.

4.4. Expert interview

The expert interviewed, Filipa Pereira, product manager at Farfetch, referred that the online experience involves several contact points between the customer and the brand. Filipa mentioned that customers want an excellent online experience and are as demanding in an online experience than in physical stores. Consumers show that they expect the online experience to be easy and fast. Moreover, they expect to have a more personalized experience (with, for example, recommendations, discounts, and loyalty benefits), secure (e.g., payments), and with a good support service, which they can trust.

The essential website elements are detailed product information (verbal and visual) and a visible purchase button for the expert. All elements need to be continually improved since e-commerce always has opportunities for new developments.

Regarding experience dimensions, she agrees with the dimensions chosen to cover in the study and mentioned that companies should give importance to customer service, which is still

relevant online despite the investment in the self-service experience since some customers need additional advisory contact service (e.g., chatbots). Customers also express the need to understand better the sensory part (such as color, dimensions, size, and feeling when wearing).

Companies are concerned about delivering a good shopping experience for their clients since there is a lot of competition in this sector and are the details that matter the most when choosing where to shop. Filipa Pereira mentioned different options to improve the online experience, depending on the company and market type. However, she thinks that bringing the online experience closer to the offline experience and investing in an omnichannel strategy are ways that companies should use to improve the experience.

Therefore, companies should invest in an excellent online shopping experience since it can bring several benefits: greater customer loyalty and retention, more customers, more sales, higher valued sales, and, consequently, more profit, which is the company's final goal.

4.5. Explanatory analysis

Table 7 contains the effects of website design elements on experience dimensions while controlling for purchase frequency.

Table 7: Multiple regression analysis

Website design elements	Experience dimensions							
	Informativeness		Entertainment		Social presence		Sensory appeal	
Product presentation								
Verbal								
Descriptive detail	0.079	(0.262)	0.353	(0.234)	0.491**	(0.239)	0.077	(0.270)
Bulleted features	0.224	(0.278)	0.134	(0.248)	0.220	(0.254)	0.422	(0.286)
Visual								
Product image	-0.519	(0.342)	-0.177	(0.305)	1.031***	(0.312)	0.666*	(0.351)
Lifestyle product image	0.771***	(0.284)	0.474*	(0.253)	-0.218	(0.259)	-0.027	(0.291)
Zoom picture	0.397	(0.273)	0.486*	(0.244)	0.383	(0.249)	-0.266	(0.281)
Product video	-0.091	(0.249)	0.416*	(0.222)	0.045	(0.227)	0.630**	(0.256)
Interface technologies								
Customer Reviews	0.720***	(0.260)	0.762***	(0.232)	-0.357	(0.237)	-0.126	(0.267)
Recommendation algorithm	-0.303	(0.292)	-0.431	(0.261)	0.976***	(0.267)	0.758**	(0.300)
Content filters	-0.061	(0.346)	0.164	(0.309)	0.190	(0.315)	0.707*	(0.355)
Chatbots	0.393	(0.262)	0.150	(0.234)	-0.037	(0.239)	0.494*	(0.269)
Chatlines	0.246	(0.281)	0.418	(0.250)	0.543**	(0.256)	-0.207	(0.288)
Smart fitting technology	-0.008	(0.312)	0.189	(0.278)	0.622**	(0.284)	0.196	(0.320)
Other information								
Return policy information	-0.337	(0.415)	0.403	(0.371)	0.645*	(0.379)	0.289	(0.427)
Shipping information	0.489	(0.355)	0.576*	(0.317)	-0.516	(0.324)	0.450	(0.365)

*: $\rho < 0.1$; **: $\rho < 0.05$; ***: $\rho < 0.01$

β represents the standardized coefficient; z-values are in parenthesis

Model fit: Adjusted R^2 : Informativeness 0.578; Entertainment 0.852; Social presence 0.865; Sensory appeal 0.873.

All the models are global significant at 1% level of significance (Informativeness 5.751***; Entertainment 20.880***; Social presence 23.196***; Sensory appeal 24.837***)

Source: author (R software)

In the informativeness dimension, only two design elements present positively significant effects on this dimension. They are lifestyle product image ($\beta=0.771$, $p < 0.01$) and customer reviews ($\beta=0.720$, $p < 0.01$).

For entertainment, five design elements exert significant effects on this dimension. The strongest effect stems from including customer reviews ($\beta=0.762$, $p < 0.01$). Followed by lifestyle product image ($\beta=0.474$, $p < 0.1$), zoom picture ($\beta=0.486$, $p < 0.1$), product video ($\beta=0.416$, $p < 0.1$) and shipping information ($\beta=0.576$, $p < 0.1$).

Six website design elements substantially influence social presence. The most important are product image ($\beta=1.031$, $p < 0.01$) and recommendation algorithm ($\beta=0.976$, $p < 0.01$). Comparably less important but significantly are description detail ($\beta=0.491$, $p < 0.05$), chatlines ($\beta=0.543$, $p < 0.05$), smart fitting technology ($\beta=0.622$, $p < 0.05$) and return information ($\beta=0.645$, $p < 0.1$).

The sensory appeal dimension is affected by five website design elements. The ones that have a strong effect are product video ($\beta=0.630$, $p < 0.05$) and recommendation algorithm ($\beta=0.758$, $p < 0.05$). The next ones are product image ($\beta=0.666$, $p < 0.1$), content filters ($\beta=0.707$, $p < 0.1$) and chatbots ($\beta=0.494$, $p < 0.1$).

5. Discussion

5.1. RQ1 - Website design elements specific and general for fast-fashion clothing brands

With the data collected on website design elements, it is now possible to answer the first research question. For fast-fashion clothing brands, the website elements used to present the product are essentially product description and bulleted features, product images, and zoom pictures or features. Some websites opted to use, additionally, lifestyle product images and product video. Regarding interface technologies, content filters and recommendation algorithms are often used. However, some websites also offer smart fitting technology, chatlines, customer reviews, and chatbots (by order of most frequent use). Overall, according to the websites' sample analyzed, the website design elements are somewhat similar across retail industries, excluding the smart fitting technology, which is exclusive to the fashion industry.

Transitioning to website design elements for Portuguese consumers' preference order, we have on product presentation: product images, descriptive detail, zoom images or features, bulleted features, product video, and lifestyle product images. In interfacing technologies: content filters, customer reviews, smart fitting technology, recommendation algorithm, chatlines, and chatbots.

5.2. RQ2 - Online customer experience in shopping for fast-fashion clothing brands

First of all, the most important dimensions for the participants, by order, are informativeness, entertainment, sensory appeal, and social presence. This order is similar to the discovery by previous researches, with the only difference that sensory appeal has more prominence than social presence, something expected in the fast-fashion clothing segment. All the website design elements have shown to have a significant impact on at least one of the dimensions of the experience, except for bulleted features, contrasting with the effects found in previous research.

Informativeness

The multiple regression analysis carried out found that lifestyle product images and customer reviews have a substantial effect on this dimension. This means that these two website design elements are crucial to customers by helping them making a fashion clothing purchase decision. Furthermore, lifestyle product images exert their strongest effects on this dimension.

Additionally, according to past findings and customer interviews, it is understandable that descriptive detail, product image, zoom picture, and recommendation algorithm are also important website design elements, providing relevant product information and, consequently, help in the customers' decision.

Entertainment

Through the multiple regression analysis, customer reviews were found to be the website element with the strongest impact on this dimension, followed by lifestyle product image, zoom picture, product video, and shipping information. Besides the first four elements, it is not easy to understand why shipping information positively affects this dimension. Additionally, content filters and recommendation algorithms are predictable to impact this dimension since customer interviewees mentioned that they transmit the fun and play of online clothing shopping.

Social presence

The multiple regression analysis found that product image, recommendation algorithm, descriptive detail, chatlines, smart fitting technology, and return policy information positively affect social presence experience when shopping from fast-fashion brands. If a company wants to reinforce this dimension, it should provide customers with the elements mentioned above. Consistent with past research, other elements can also be considered, such as descriptive detail and chatbots since it can be linked to a human presence and perceived tangibility.

Besides, online survey participants and customer interviewees think this dimension is the less important of the four dimensions covered, the expert stated that importance should be given to this dimension because it is needed for some customers.

Sensory appeal

In the multiple regression analysis conducted, the website design elements that showed a significant positive effect on this dimension were product video and recommendation algorithm, followed by product image, content filters, and chatbots. Product video exhibited their strongest effect in this dimension, which is in line with past research findings.

Recommendation algorithms, content filters, and chatbots do not match with information collect by customer interviews and past findings, so they will not be considered in this experience dimension. Additionally, it was expected that one of the essential elements, the zoom images, to have a substantial effect on this dimension since interviewees and past research mentioned that. Thus, it will be considered.

From the information received by customers and the expert, this dimension is the one that needs more improvement to customers being able to understand the sensory part of the product more effectively and, consequently, not to have deceptions when receiving the product.

Table 8: Summary of findings regarding the effects of website design elements on the customer online experience in shopping for fast-fashion clothing (included comparison with past findings)

	Informativeness	Entertainment	Social presence	Sensory appeal
Product presentation				
Verbal				
Descriptive detail	✓	✓	✓	✓
Bulleted features	✓			✓
Visual				
Product image	✓	✓	✓	✓
Lifestyle product image	✓	✓	✓	✓
Zoom picture	✓	✓	✓	✓
Product video	✓	✓	✓	✓
Interface technologies				
Customer Reviews	✓	✓	✓	✓
Recommendation algorithm	✓	✓	✓	✓
Content filters			✓	✓
Chatbots			✓	✓
Chatlines			✓	
Smart fitting technology	✓		✓	
Other information				
Return policy information			✓	
Shipping information			✓	

Legend:

On the left:

- ✓ - Past findings - it was found positive effects on the selected experience dimension
- ✓ - Past findings - the website element has its strongest effects on the selected experience dimension

On the right:

- ✓ - In this research - it was found to have positive effects on the selected experience dimension
- ✓ - In this research - it was found to have its strongest effects on the selected experience dimension
- ✓ - In this research - according to past findings and customer interviews, it is also considered to have positive effects on the selected experience dimension
- ✓ - In this research - unconvinced findings

Source: author

With the results found and the summary shown in Table 8, it is now possible to answer the second research question. The most important dimensions are informativeness, entertainment, and sensory appeal, followed by the social presence. Descriptive detail, product image, lifestyle product image, zoom picture, customer reviews, and recommendation algorithm build informativeness experience. Companies should use lifestyle product images, zoom pictures, product videos, customer reviews, recommendation algorithm, and content filters for the entertainment experience. Product images, zoom pictures, and product video impacts the sensory appeal experience. In order to build a social presence experience, descriptive detail, product image, recommendation algorithm, chatbots, chatlines, smart fitting technology, and return/exchange policy information should be presented.

6. Conclusion

6.1. Main conclusions and managerial and theoretical implications

The most common reason for Portuguese consumers to buy online is the shopping experience (convenience, to save time, to avoid crowds, compare products and prices, and buy 24/7). Customer experience is about the company's end-to-end customer relationship across the entire journey, including all the different channels companies use to reach the customers (Fryer, 2020). It involves the customer's cognitive, emotional, behavioral, sensory, and social responses to a company's offerings during the entire purchase journey (Lemke et al., 2011). Thus, as the expert interviewed and other research sources mentioned, offering a compelling customer experience can bring several additional benefits to companies, such as stronger customer retention and loyalty and a higher customer lifetime value. Moreover, companies get free promotion through word of mouth since satisfied customers will share their pleasant experiences with their friends and family (Fryer, 2020).

While customers are making their purchase decisions, they inspected the website, and, thus, a website's design and elements play an essential role in online shopping (Kumar et al., 2019). Therefore, this dissertation helps fast-fashion clothing brands in understanding the website design elements used by these brands' websites and in which ones they should give priority according to the four online customer experience dimensions defined in this study (informativeness, entertainment, sensory appeal, and social presence). In Appendix 10, a full guide for companies is available to create a powerful online customer experience in shopping for fast-fashion clothing brands. By having a clear definition and understanding of the online customer experience, managers have a substantial opportunity to develop more consistent, reliable, and efficient websites to mitigate the barriers inhibiting online shopping or avoid less pleasant online experiences.

For theoretical implications, this study responds to the limited amount of literature regarding online customer experience, specific for fast-fashion clothing brands in the Portuguese market. Website design elements never examined before in this field were analyzed (chatbots, chatlines, smart fitting technology, and shipping information), and other interesting findings were discovered, which will allow for future research.

6.2. Limitations and future research

In order to get even more valuable and accurate insights on the effects of the website elements on online customer experiences, it is essential to point out the limitations of the research conducted.

This research has not shown any significant effects of bullet features on any dimension covered, contrary to previous research. Furthermore, recommendation algorithms, content filters, and chatbots showed an impact on the dimension of sensory appeal and shipping information on entertainment, which, according to literature and predictable results, would not be expected. Moreover, some website elements did not show positive effects in dimensions where they are fundamental. Therefore, additional research should be done to further explore these elements through more significant sample surveys, with fewer questions and information, to increase the response rate and validity. Also related to the sample, since it is relatively small, it may have induced a bias in the survey, not representing the entire population of Portuguese consumers, limiting the generalization of the results. The same is true regarding the interviews. Therefore, future research should be conducted by interviewing more customers and experts to increase validity and insights.

The measurement accuracy can be further improved, with more statements describing each experience dimension. A more in-depth analysis of the informativeness experience dimension should be done because this is the dimension considered the most important on the online experience and is the one that is less explained with the website elements chosen.

Another possible extension of this study relates to the choice of control variables. It would also be interesting to analyze how website design elements can influence the decision-making process and quality, long-term satisfaction, and product returns.

With this dissertation's development, it was found interesting to divide the online experience by search, choose, payment (checkout webpages), and delivery (tracking information and packaging) experiences to deliver a better experience in each step of the online customer journey. Further research is suggested to investigate the effects of mobile environments and omnichannel adoption in the experience delivered, exploring mobile apps' opportunities, which can include augmented reality improving the experience in-store and online, already used by some companies.

Thus, and to conclude, since this dissertation is limited to a specific industry and market, the author suggests further research to extend this study to new markets and industries. As online shopping continues to approach the richness of the in-store retail world, the research should also investigate the value of websites and provide unique experiences customized to the products and brands' specific characteristics.

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Appendices



Appendix 1. Online survey script



Section	List of questions	List of options to answer
Demographics	Q1) How old are you?	Open question
	Q2) What gender do you identify with?	Female Male Other
	Q3) What is your nationality?	List of countries
	Q4) What is your education level?	Less than high school High school graduate Bachelor's degree Master's degree Doctorate Professional degree
	Q4) Which of these options best describe your current occupation?	Student Student-worker Employed full time Employed part-time Unemployed looking for work Unemployed not looking for work Retired Other
	Q5) What is your monthly family income after tax deduction?	Less than 1,000€ 1,000€-2,000€ 2,000€-3,000€ 3,000€-4,000€ 4,000€-5,000€ More than 5,000€
Online apparel purchase behavior	Q6) How do you best describe your purchase behavior?	I make all my clothing purchases online I make most of my clothing purchases online I do about half of my clothing purchases online I do a small part of my clothing purchases online I never buy clothes online
For people who have already bought online (shoppers)	Q7) What made you or make you buy fashion clothes online? (please select all that apply)	The convenience of not going to shops The convenience of everything in one place Reviews from other shoppers To avoid crowds To avoid checkout lines To save time To save energy Greater variety/selection Better prices

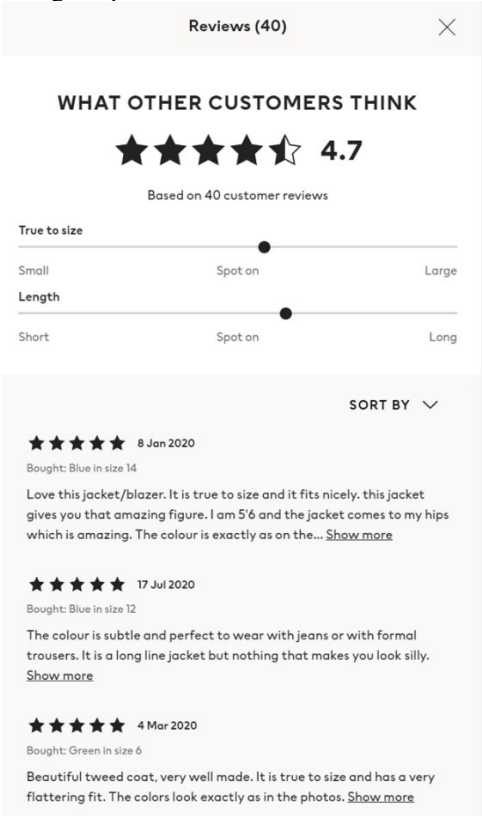
	<p>Free shipping offers</p> <p>Ability to shop 24/7</p> <p>Ability to compare products and prices</p> <p>Products are not sold in my city/country</p> <p>Possibility of replacement and refund the products</p> <p>Other (specify)</p>
Q8) What do you like the least when buying fashion clothes online? (please select all that apply)	<p>Delivery takes too long</p> <p>Inability to touch and feel the product</p> <p>Inability to try the product on</p> <p>Do not trust online payment security</p> <p>I can't have the experience of going to the shops</p> <p>I can't talk to a salesperson</p> <p>Product is too valuable to buy online</p> <p>The return process is too complicated</p> <p>Concerned products look different</p> <p>Shipping costs are too high</p> <p>Other (specify)</p>
Q9) How frequently do you shop for fashion clothes online?	<p>Less than once a month (1)</p> <p>Once a month (2)</p> <p>Twice a month (3)</p> <p>Three times a month (4)</p> <p>More than three times a month (5)</p>
Q10) Where do you prefer to search for fashionable clothes?	<p>Physical store</p> <p>Website</p> <p>Mobile phone/app</p>
Q11) Where do you prefer to buy fashionable clothes?	<p>Physical store</p> <p>Website</p> <p>Mobile phone/app</p>
Q12) Based on your recent purchases on fashion clothing websites, how satisfied or dissatisfied were you with your overall experience?	<p>Extremely dissatisfied</p> <p>Moderately dissatisfied</p> <p>Slightly dissatisfied</p> <p>Neither satisfied nor dissatisfied</p> <p>Slightly satisfied</p> <p>Moderately satisfied</p> <p>Extremely satisfied</p>
Q13) Based on your recent purchases on fashion clothing websites, on average, how easy or difficult was it to shop for what you wanted?	<p>Extremely difficult</p> <p>Moderately difficult</p> <p>Slightly difficult</p> <p>Neither easy nor difficult</p> <p>Slightly easy</p> <p>Moderately easy</p> <p>Extremely easy</p>
Q14) How likely are you to continue to purchase fashion clothing online?	<p>Extremely unlikely</p> <p>Moderately unlikely</p>


		<p>Slightly unlikely</p> <p>Neither likely nor unlikely</p> <p>Slightly likely</p> <p>Moderately likely</p> <p>Extremely likely</p>
	<p>Q15) What are the main characteristics that lead you to choose to buy on a given clothing website? (select up to 6 options)</p>	<p>Visual appealing/aesthetics</p> <p>Shipping price offer</p> <p>Product details</p> <p>Easy checkout</p> <p>Way products are presented</p> <p>Possibility to return and exchange</p> <p>Price-quality</p> <p>Brand recognition</p> <p>Customer support</p> <p>Have other customers feedback</p> <p>Delivery speed</p> <p>Other (specify)</p>
<p>(For people who have never bought online – non-shoppers)</p>	<p>Q16) Why have you never bought fashion clothes online? (please select all that apply)</p>	<p>Delivery takes too long</p> <p>Lack of necessary skills</p> <p>Lack of payment card (not having neither debit nor credit card)</p> <p>Enjoy the experience of going to the shops</p> <p>I want to talk to a salesperson</p> <p>Inability to touch and feel</p> <p>Inability to try the item on</p> <p>Do not trust online payment security</p> <p>Product is too valuable to buy online</p> <p>The return process is too complicated</p> <p>Concerned products look different</p> <p>Shipping costs are too high</p> <p>Other (specify)</p>
	<p>Q17) How likely are you to purchase fashion clothing in the future?</p>	<p>Extremely unlikely</p> <p>(...)</p> <p>Extremely likely</p>
	<p>Q18) What would make you start buying fashion clothes online? (please select all that apply)</p>	<p>The convenience of not going to shops</p> <p>The convenience of everything in one place</p> <p>Greater variety/selection</p> <p>Better prices</p> <p>Free shipping offers</p> <p>To avoid crowds</p> <p>To avoid checkout lines</p> <p>To save time</p> <p>To save energy</p> <p>Ability to shop 24/7</p> <p>Ability to compare products and prices</p>

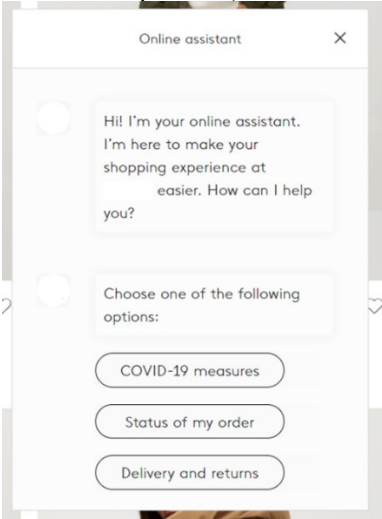
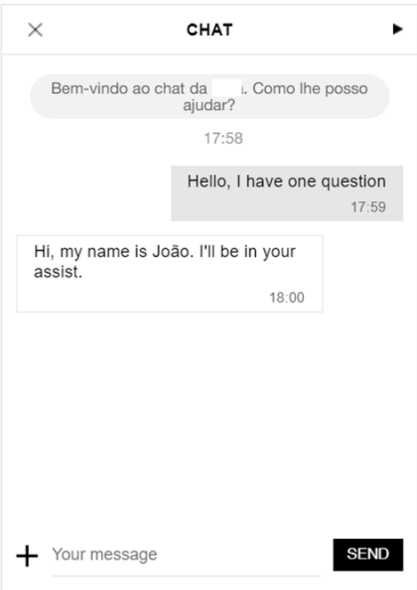
		<p>Products are not sold in my city/country</p> <p>To have reviews from other shoppers</p> <p>Replacement and refund of the products</p> <p>Other (specify)</p>
	<p>Q19) Select the expression that best applies to you.</p>	<p>I like to shop for clothes, and I have already interacted with a fashion clothing website</p> <p>I like to shop for clothes, but I never interacted with fashion clothing websites</p> <p>I don't like to shop for clothes, but I have already interacted with a fashion clothing website</p>
<p>Online customer experience in shopping for fast fashion</p>	<p>Q20) Now, it follows some questions regarding elements presented in the fashion clothing websites. First, a brief explanation of the element will be given, and then questions about that particular element will be asked.</p>	<p>--</p>
	<p>Descriptive detail</p> <p>Descriptive detail is a brief explanation of the clothing product that can include fabric, shape, composition, and washing details, as you can see in the image below.</p> <p><small>DESCRIPTION</small></p> <p>Faux leather. Faux shearling interior. Oversize design. Medium design. Aviator style. Lapel-collar. Long puffed sleeves. Buttoned cuffs. Side pockets. Button fastening on the front section.</p> <p>Side length 15.12 in.</p> <p>Back length 27.4 in.</p> <p>Women Jackets Jackets</p> <p><small>MATERIAL AND WASHING INSTRUCTIONS</small></p> <p>Composition: 100% polyester</p> <p></p>	<p>--</p>
	<p>Q21) Rate your agreement level (from 0 to 100) with the following statements about the descriptive detail.</p> <ol style="list-style-type: none"> 1. The information obtained from this element is useful. 2. I learn a lot from seeing this element. 3. This element is fun. 4. This element is enjoyable. 5. This element gives a sense of human contact (warmth and sensitivity). 6. This element gives a sense of sociability. 7. This element conveys liveliness and is exciting to the senses. 8. Select the number 60. 9. With this element, I can acquire product information from different sensory channels. 	<p>Select from 0 to 100 the level of agreement of the statements showed.</p> <p>0 – Strongly disagree</p> <p>100 – Strongly agree</p>
	<p>Bulleted features</p> <p>Product bulleted features is a brief explanation of the product attributes by topic. An example is showed in the image below.</p>	


	<p>SPECIFICATIONS</p> <ul style="list-style-type: none"> • Relaxed fit • Drawcord-adjustable hood • Main: 70% cotton, 30% recycled polyester peached fleece • Hood lining: 100% cotton single jersey • Hooded sweatshirt dress • Kangaroo pocket • Ribbed cuffs and hem • Fleece • Product colour: Redwood • Product code: H33366 	
	<p>Q22) Rate your agreement level (from 0 to 100) with the following statements about the product description in points.</p> <ol style="list-style-type: none"> 1. The information obtained from this element is useful. 2. I learn a lot from seeing this element. 3. This element is fun. 4. This element is enjoyable. 5. This element gives a sense of human contact (warmth and sensitivity). 6. This element gives a sense of sociability. 7. This element conveys liveliness and is exciting to the senses. 8. With this element, I can acquire product information from different sensory channels. 	<p>Select from 0 to 100 the level of agreement of the statements showed.</p> <p>0 – Strongly disagree 100 – Strongly agree</p>
	<p>Product image</p> <p>The product image is a simple and clear image of the product with the model wearing it on a plain background, as shown below.</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div>	
	<p>Q23) Rate your level of agreement (from 0 to 100) with the following statements about the product image.</p> <ol style="list-style-type: none"> 1. The information obtained from this element is useful. 2. I learn a lot from seeing this element. 3. This element is fun. 4. This element is enjoyable. 5. Select the number 90. 6. This element gives a sense of human contact (warmth and sensitivity). 7. This element gives a sense of sociability. 8. This element conveys liveliness and is exciting to the senses. 9. With this element, I can acquire product information from different sensory channels. 	<p>Select from 0 to 100 the level of agreement of the statements showed.</p> <p>0 – Strongly disagree 100 – Strongly agree</p>
	<p>Lifestyle product image</p> <p>A lifestyle product image is an image of the product in a lifestyle context representing a situation similar to</p>	

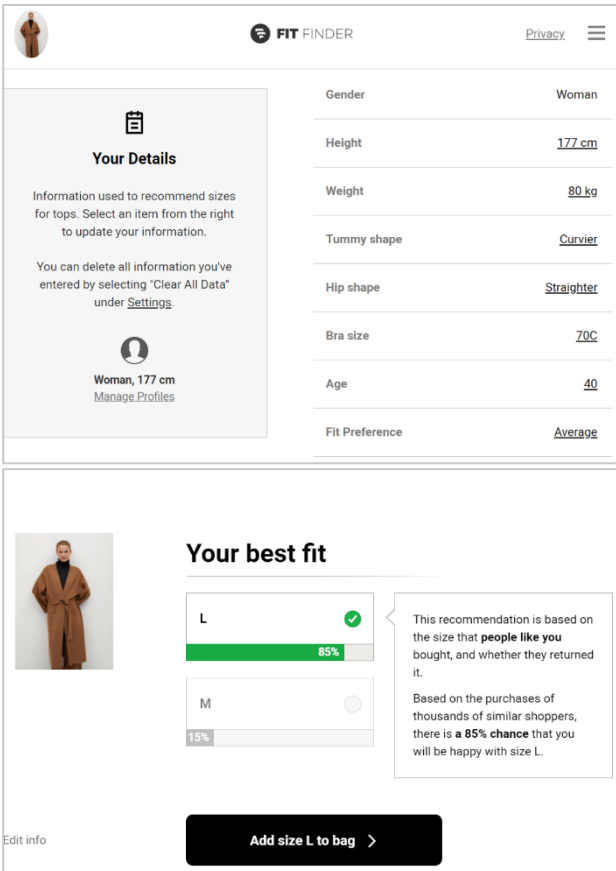
	<p>customer's lives, normally taken in natural light environments.</p> 	
	<p>Q24) Rate your agreement level (from 0 to 100) with the following statements about the lifestyle product image.</p> <ol style="list-style-type: none"> 1. The information obtained from this element is useful. 2. I learn a lot from seeing this element. 3. This element is fun. 4. This element is enjoyable. 5. This element gives a sense of human contact (warmth and sensitivity). 6. This element gives a sense of sociability. 7. This element conveys liveliness and is exciting to the senses. 8. With this element, I can acquire product information from different sensory channels. 	<p>Select from 0 to 100 the level of agreement of the statements showed.</p> <p>0 – Strongly disagree 100 – Strongly agree</p>
	<p>Zoom picture Zoom pictures can be a feature that allows a photo to zoom in or can be a photo with a closer look of the product.</p> 	
	<p>Q25) Rate your level of agreement (from 0 to 100) with the following statements about zoom pictures.</p> <ol style="list-style-type: none"> 1. The information obtained from this element is useful. 2. I learn a lot from seeing this element. 3. This element is fun. 4. This element is enjoyable. 5. This element gives a sense of human contact (warmth and sensitivity). 6. Select the number 100. 7. This element gives a sense of sociability. 8. This element conveys liveliness and is exciting to the senses. 9. With this element, I can acquire product information from different sensory channels. 	<p>Select from 0 to 100 the level of agreement of the statements showed.</p> <p>0 – Strongly disagree 100 – Strongly agree</p>

	<p>Product video A video of the product is an animation with a person wearing the piece of clothes and showing the different angles of the product in motion, as shown in the sample demonstration below. https://ucplbusiness.co1.qualtrics.com/CP/File.php?F=F_2rUcTvAph54o8WF</p>	
	<p>Q26) Rate your agreement level (from 0 to 100) with the following statements about the product video.</p> <ol style="list-style-type: none"> 1. The information obtained from this element is useful. 2. I learn a lot from seeing this element. 3. This element is fun. 4. This element is enjoyable. 5. This element gives a sense of human contact (warmth and sensitivity). 6. This element gives a sense of sociability. 7. This element conveys liveliness and is exciting to the senses. 8. With this element, I can acquire product information from different sensory channels. 	<p>Select from 0 to 100 the level of agreement of the statements showed. 0 – Strongly disagree 100 – Strongly agree</p>
<p>In order to have more completed responses, the website design elements were divided into two groups. The division was done precisely here. Meaning that some people answer the elements presented above, and the other half answered the below ones.</p>		
	<p>Customer reviews Customer reviews are comments about the satisfaction of other customers who have already purchased the product. They can be presented through a visual sequence of stars (customer star ratings), which demonstrate the accumulation of product reviews generated by the total number of consumer reviews, or through a short text. Sometimes, consumers have the possibility to share their images using the product.</p> 	

	<p>Q27) Rate your agreement level (from 0 to 100) with the following statements about customer reviews.</p> <ol style="list-style-type: none"> 1. The information obtained from this element is useful. 2. I learn a lot from seeing this element. 3. This element is fun. 4. This element is enjoyable. 5. This element gives a sense of human contact (warmth and sensitivity). 6. This element gives a sense of sociability. 7. This element conveys liveliness and is exciting to the senses. 8. With this element, I can acquire product information from different sensory channels. 	<p>Select from 0 to 100 the level of agreement of the statements showed.</p> <p>0 – Strongly disagree 100 – Strongly agree</p>
	<p>Content filters</p> <p>Content filters allow customers to dictate what and how much content appears on the webpage – for example, “show more” buttons, show red blouses, etc.</p> 	
	<p>Q28) Rate your agreement level (from 0 to 100) with the following statements about content filters.</p> <ol style="list-style-type: none"> 1. The information obtained from this element is useful. 2. I learn a lot from using this element. 3. This element is fun. 4. Select the number 70. 5. This element is enjoyable. 6. This element gives a sense of human contact (warmth and sensitivity). 7. This element gives a sense of sociability. 8. This element conveys liveliness and is exciting to the senses. 9. With this element, I can acquire product information from different sensory channels. 	<p>Select from 0 to 100 the level of agreement of the statements showed.</p> <p>0 – Strongly disagree 100 – Strongly agree</p>
	<p>Chatbots</p> <p>Chatbots are virtual shopping assistants which answer common customers' questions with pre-programmed answers through a chat, relying only on artificial intelligence. They provide information on, for example, the exchange and return policy, shipping conditions, order</p>	

	<p>status, payment methods, and product information (replacement of sold-out products).</p> 	
	<p>Q29) Rate your agreement level (from 0 to 100) with the following statements about chatbots.</p> <ol style="list-style-type: none"> 1. The information obtained from this element is useful. 2. I learn a lot from using this element. 3. This element is fun. 4. This element is enjoyable. 5. This element gives a sense of human contact (warmth and sensitivity). 6. This element gives a sense of sociability. 7. This element conveys liveliness and is exciting to the senses. 8. With this element, I can acquire product information from different sensory channels. 	<p>Select from 0 to 100 the level of agreement of the statements showed.</p> <p>0 – Strongly disagree 100 – Strongly agree</p>
	<p>Chatlines</p> <p>Chatlines has the same purpose of chatbots – answer questions and doubts from customers through a chat– but it has a human presence on the seller side. This means that they can provide information in a more detailed and personalized way.</p> 	

	<p>Q30) Rate your agreement level (from 0 to 100) with the following statements about chatlines.</p> <ol style="list-style-type: none"> 1. The information obtained from this element is useful. 2. I learn a lot from using this element. 3. This element is fun. 4. This element is enjoyable. 5. This element gives a sense of human contact (warmth and sensitivity). 6. This element gives a sense of sociability. 7. This element conveys liveliness and is exciting to the senses. 8. With this element, I can acquire product information from different sensory channels. 	<p>Select from 0 to 100 the level of agreement of the statements showed.</p> <p>0 – Strongly disagree 100 – Strongly agree</p>
	<p>Recommendation algorithm Recommendation algorithm shows recommended products based on current and past browsing. It can display similar products, products that complete the look and even products based on previous research, may interest you.</p> <p><small>SIMILAR PIECES</small></p>  <p><small>COMPLETE YOUR OUTFIT</small></p>  <p><small>YOU MIGHT ALSO LIKE</small></p> 	

	<p>Q31) Rate your agreement level (from 0 to 100) with the following statements about the recommendation algorithm.</p> <ol style="list-style-type: none"> 1. The information obtained from this element is useful. 2. I learn a lot from seeing this element. 3. This element is fun. 4. This element is enjoyable. 5. This element gives a sense of human contact (warmth and sensitivity). 6. This element gives a sense of sociability. 7. This element conveys liveliness and is exciting to the senses. 8. With this element, I can acquire product information from different sensory channels. 	<p>Select from 0 to 100 the level of agreement of the statements showed.</p> <p>0 – Strongly disagree 100 – Strongly agree</p>
	<p>Smart fitting technologies Smart fitting technologies enable customers to find the right size for them based on gender, age, weight, height, belly shape, hip shape, preferred fitting and previous purchases' sizes.</p>  <p>The screenshot shows a 'FIT FINDER' interface. On the left, under 'Your Details', it lists: Woman, 177 cm, Manage Profiles. On the right, a list of attributes is shown: Gender (Woman), Height (177 cm), Weight (80 kg), Tummy shape (Curvier), Hip shape (Straighter), Bra size (70C), Age (40), and Fit Preference (Average). Below this, the 'Your best fit' section shows a recommendation for size L with an 85% chance (indicated by a green bar and a checkmark) and size M with a 15% chance. A text box explains: 'This recommendation is based on the size that people like you bought, and whether they returned it. Based on the purchases of thousands of similar shoppers, there is a 85% chance that you will be happy with size L.' At the bottom, there is a button 'Add size L to bag >' and an 'Edit info' link.</p>	
	<p>Q32) Rate your agreement level (from 0 to 100) with the following statements about smart fitting technology.</p> <ol style="list-style-type: none"> 1. The information obtained from this element is useful. 2. I learn a lot from seeing this element. 3. Select the number 50. 4. This element is fun. 5. This element is enjoyable. 6. This element gives a sense of human contact (warmth and sensitivity). 7. This element gives a sense of sociability. 8. This element conveys liveliness and is exciting to the senses. 9. With this element, I can acquire product information from different sensory channels. 	<p>Select from 0 to 100 the level of agreement of the statements showed.</p> <p>0 – Strongly disagree 100 – Strongly agree</p>

	<p>Return and exchange policy information The return/exchange policies are the information that informs the client regarding their possibility to return or exchange products, how and where to do it.</p> <div style="border: 1px solid black; padding: 5px;"> <p>EXCHANGES AND RETURNS</p> <p>You have 30 days from the shipping date to return your purchase from FREE OF CHARGE.</p> <p>AT A STORE You can exchange or return items at any store in the country/region where the purchase was made.</p> <p>HOME COLLECTION You can request a home pick-up by going to the orders and returns section.</p> <p>AT A DROP-OFF POINT You can request the returns label by going to the orders and returns section.</p> <p>Some of our items may have special conditions for returns. Further information in section Exchanges and Returns > Special Conditions.</p> <p>You can find further information on the Exchange and Refunds Policy and the right to waiver in our Terms and Conditions of Purchase</p> </div>	
	<p>Q33) Rate your agreement level (from 0 to 100) with the following statements about return and exchange policy information.</p> <ol style="list-style-type: none"> 1. The information obtained from this element is useful. 2. I learn a lot from seeing this element. 3. This element is fun. 4. This element is enjoyable. 5. This element gives a sense of human contact (warmth and sensitivity). 6. This element gives a sense of sociability. 7. This element conveys liveliness and is exciting to the senses. 8. With this element, I can acquire product information from different sensory channels. 	<p>Select from 0 to 100 the level of agreement of the statements showed.</p> <p>0 – Strongly disagree 100 – Strongly agree</p>
	<p>Shipping information Shipping information is the information presented near the product or on the website regarding options of delivery places, shipping costs, and the time it takes to arrive at the chosen place.</p> <div style="border: 1px solid black; padding: 5px;"> <p>SHIPPING</p> <p>COLLECTION AT A STORE - FREE In the store of your choice within 3-5 working days.</p> <p>HOME DELIVERY:</p> <p>- STANDARD DELIVERY - 3.95 EUR / FREE (ORDERS OVER 30 EUR) The estimated delivery time will be between 2-3 working days, depending on the delivery address.</p> <p>- EXPRESS DELIVERY - 5.95 EUR The estimated delivery time will be between 1-2 working days.</p> <p>DROP POINT - 3.95 EUR / FREE (ORDERS OVER 30 EUR) At the drop point of your choice within 3-5 working days.</p> <p><i>The delivery times shown above shall be increased for the Azores and Madeira.</i></p> <p>At the time of processing your purchase, we will show you the available shipping methods, the cost and the delivery date of your order.</p> </div>	

	<p>Q34) Rate your agreement level (from 0 to 100) with the following statements about the shipping information.</p> <ol style="list-style-type: none"> 1. The information obtained from this element is useful. 2. I learn a lot from seeing this element. 3. This element is fun. 4. This element is enjoyable. 5. This element gives a sense of human contact (warmth and sensitivity). 6. This element gives a sense of sociability. 7. Select the number 20. 8. This element conveys liveliness and is exciting to the senses. 9. With this element, I can acquire product information from different sensory channels. 	<p>Select from 0 to 100 the level of agreement of the statements showed.</p> <p>0 – Strongly disagree 100 – Strongly agree</p>
	<p>Q35) Evaluate your level of agreement with the following statements about your ideal online fashion clothing purchase experience:</p> <ol style="list-style-type: none"> 1. The information provided from the website elements needs to be useful. 2. I need to learn a lot from using/seeing the website elements. 3. The website elements need to be fun. 4. The website elements need to be enjoyable. 5. The website elements need to have a sense of human contact (warmth and sensibility). 6. The website elements need to have a sense of sociability. 7. The website elements need to convey liveliness and be exciting to the senses. 8. It is important to acquire product information on the website elements from different sensory channels. 	<p>Strongly disagree Disagree Somewhat disagree Neither agree nor disagree Somewhat agree Agree Strongly agree</p>
(Ranking questions regarding website design elements)	<p>Q36) Rank the following website features from the fundamental to be present in your fashion clothing website to the less important one.</p>	<p>Descriptive product Product bulleted features Product image Lifestyle product image Product video Zoom picture</p>
	<p>Q37) Rank the following website features from the fundamental to be present in your fashion clothing website to the less important one.</p>	<p>Customer reviews Recommendation algorithm Chatbots (with no human presence) Chatlines (with human presence) Content filters Smart fitting technology</p>
	<p>Q38) Share any additional feedback that could improve your online fashion clothing purchase experience.</p>	<p>Open question</p>

Appendix 2. Detailed information regarding the types of questions of online survey

The Likert scale is the most used form of attitude scale because it is easy for researchers to prepare and interpret and simple for consumers to answer. Participants select the number corresponding, for example, to their level of agreement with a series of statements under the object of investigation (Schiffman & Wisenblit, 2015). The scale consists of an equal number of agreement/disagreement choices on either side of a neutral choice. The principal benefit is

that it gives the option of considering each statement's responses separately or combining the responses to produce an overall score (Schiffman & Wisenblit, 2015). The scale chosen was a 7-point Likert scale, ranging from 1 ("Strongly Disagree") to 7 ("Strongly Agree") in order to assess the level of agreement with the presented statements related to the ideal online customer experience. This type of scale was also used to measure the overall satisfaction and easiness of the online apparel purchase experience.

The 101-point continuum scale or semantic differential scale consists of a series of bipolar adjectives or words (such as "good/bad, "like/dislike,") anchored at the ends of an odd-numbered continuum scale (Schiffman & Wisenblit, 2015). After participants being presented with the explanation of the different website design elements, they were asked to evaluate a concept (website design element) based on each statement shown according to their level of agreement by checking the point on the continuum scale that best reflects their feelings or beliefs, between 0 ("Strongly disagree") and 100 ("Strongly agree"), a 101-point scale (Schiffman & Wisenblit, 2015). The statements represent the four dimensions of the online customer experience. Each dimension was measured by two sentences presented in Table 2.

Ranking questions asks respondents to rank items in order of preference in terms of some criterion (Schiffman & Wisenblit, 2015). In this study, ranking questions were used to ask participants to order the website design elements according to their importance. This type of question provides important competitive information and enables companies to identify areas of improvement. Sometimes ranking questions are target with some criticism in the case of existing a lot of option to be ranked (due to taking much time and not being practical) or forcing the respondent to choose between two options that he values or classifies in the same level. However, rankings are still proven to be more successful than ratings in allowing differentiation (Krosnick, 1999).

Appendix 3. Customer interviews script

Overall online shopping

1. What made you or make you buy fashion clothes online?
2. What do you like the least when buying fashion clothes online?
3. Where do you prefer to search for fashionable clothes?
4. Where do you prefer to buy fashionable clothes?

5. Based on your recent purchases on fashion clothing websites, how satisfied or dissatisfied were you with your overall experience? What contributes more to that?
6. Based on your recent purchases on fashion clothing websites, on average, how easy or difficult, was it to shop for what you wanted? What makes it easy or difficult your purchase?
7. How likely are you to continue to purchase fashion clothing online?

Website preferences

8. What is your favorite website, and why?
9. What are the main characteristics that lead you to choose to buy on a given clothing website?
10. What do you want on a website to be your ideal one (descriptive detail, bulleted features, product image, lifestyle product image, zoom picture, product video, return policy information, shipping information, customer reviews, content filters, chatbots, chatlines, recommendation algorithm, smart fitting technology)?

Experience's dimensions

11. (Informativeness) Is it easy to understand the product by the elements used to describe and show the product? What are the elements that better have this purpose? What would you like to have more in order to understand the product better?
12. (Entertainment) It is better when the website has a sense of fun, and it is enjoyable and pleasant? Do you favor this attribute? What on the website gives you that sense? On which website did you feel that way?
13. (Social presence) Do you think it is essential to have a sense of human contact and sociability? Is it important for you? Which website elements convey this sense?
14. (Sensory appeal) Do you think it is essential that a website conveys liveliness and that the product's presentation is exciting to the senses like you were almost touching it? Can you easily understand the touch of the product? When the product arrived at your house, most of the time were like it was shown on the website? Which website elements convey this sense?
15. What do you think of the current experience delivered by fast-fashion websites? What is missing?

Appendix 4. Customer interviews transcript

Joana* - a woman with 22 years old, who is working and studying at the same. She is very attentive to the new trends in fashion, being a regular consumer. She only started buying online two months ago, but she has already have bought five times since then.

Overall online shopping

1. The easiness to do it, more products available and it is easier to compare the products and prices with other brands, do not have to go to the physical store, have the possibility to return and exchange at home
2. Sometimes the product is not the same as seen in the images
3. Website
4. When I have less time, I prefer on the website, when I have time I like to go to stores.
5. Moderately satisfy, since I can buy whatever I want online without paying shipping costs (if I buy more than the stipulated limit) and return easily without costs too
6. More or less, sometimes there is not what we want, it is difficult to choose a product between similar ones because of colors misperceptions, fabric and texture
7. Extremely likely

Website preferences

8. Mango because it is more visually appealing and beautiful in my opinion, I prefer the clothes and the way they are presented with all the measures, good quality-price, the package delivered always has a beautiful message, it seems that they care.
9. Free delivery and possibility to return and exchange for free at home, trust in the brand, good details, and pictures of the product.
10. To be like Mango's website and adding the chatlines like Zara, customer reviews like H&M and a video of a model wearing the product and a video with zoom and moving the piece of clothes.

Experience's dimensions

11. The ones that I used are outstanding since the searching experience of products until the delivery. I think it is somewhat easy to choose the product allowed to exchange if it is not what I expected. The payment is super easy to do, and we are informed when and

where our delivery is. Mango also informs me the exact moment I will receive the product at my home, and I value this a lot.

12. Image, description, video, zoom

13. The website does not need to be fun, only enjoyable, and pleasant to see and navigate.

Good images make the experience pleasant; recommendation algorithm and content filters make the experience enjoyable

14. Yes, since sometimes we have doubts that should be clarified as quickly as possible, especially if we do it the first time. The best tool that I tried was chatlines on the Zara website. Unfortunately, they are only available on a daily time during the weeks.

15. Yes, very important! Sometimes it is somewhat challenging to understand the touch of the product. Picture, Zoom, and video help; however, a product video and a zoom video would help more. Most of the time, the product is not was look like.

Constança* - woman and a master's student with 22 years. She likes fashion, to be aware of the latest trends and to go shopping. She started buying only since the age of 18 and makes slightly three purchases per month, totalizing 180 purchases.

Overall online shopping

1. More comfortable, we do not leave the house, promotions only on apps, points programs, when you buy several products you accumulate points and then you can discount them in your purchases; Shein and Zaful have people's recommendations, which doesn't exist in the store and I value a lot
2. Do not touch the product, and sometimes when the product arrives, it is different from what I saw on the website
3. What is new in the app
4. It depends on the value of the product, if it is a coat/jacket, I prefer to buy in physical stores, the rest if I already know my size I prefer online; if it is Shein she doesn't have other option if not online
5. Moderately satisfy
6. The first time I did it with more attention, but in general, I think it is really easy and intuitive
7. Absolutely

Website preferences

8. Zara, since they show their new collections with gifs and videos, and some of the pieces have this type of animation that I value a lot. The website has the smart fitting technology, store availability, and when I have doubts, it helps a lot; the organization of the website is really good; the app also works well, with QR code and I can save the product that I saw in the physical store in my phone; currently almost every website are approximate to this reality
9. Trust and know the brand; Shein – low prices and reviews
10. More customer reviews, however knowing the brand and the partnerships with social media help to have the reviews of the products

Experience's dimensions

11. It is easy; they have everything explained, image, zoom, description (composition), measures of the pieces, for example, of the sleeves that are important for me
12. Yes, it helps, but I think that for well-known stores, it is not fundamental (Zara)
13. I never used chats since the websites are informative, and I never needed additional help or information
14. Very important, but not too much; what helps is video and zoom
15. I like it, and I only receive different items a few times but nothing special. I think it is missing customer reviews.

Pedro* - a men 24 years old and working full-time. He does not like to go shopping in physical stores like many men because of queues and crowds. He already bought a few times online, about one order per month.

Overall online shopping

1. More comfortable, we do not need to leave the house
2. Do not touch the product, and sometimes when the product arrives, it is different from what I saw on the website
3. Websites
4. Website
5. Moderately satisfy

6. I think it is easy and intuitive
7. Absolutely

Website preferences

8. Adidas because it is easier and has more variety and bigger sizes.
9. If it is intuitive if the product's photo is explicit and if I trust in the brand
10. To be like Adidas and La Redoute

Experience's dimensions

11. Yes, because there is a description of the product, pictures and usually is everything explicit
12. It matters because we, men, it is terrible going to shop. It is better to do it online because we have neither cues nor dress and undress. If the website was fun, even better
13. I think it is important because it can come up some doubt, however, now the websites say everything, so I never add the necessity to use that
14. Principally photos
15. I think it is good, because until the moment went well since I am not picky. I think it is missing the shipping cost for free

Rita* - a woman with 30 years, who is working full-time. She likes to buy clothes; the first option is always to buy online because of convenience. She has already purchased roughly 50 times and started three years ago.

Overall online shopping

1. It is more convenient, practical, comfortable, cheaper since it can have more promotions and greater ability to control prices by comparing products. I bought on multi-brand websites because, for example, in Showroomprive, I buy a package called infinity, which costs about 20€/year and has free shipping in purchases higher than 25€
2. When I see the product sometimes does not have sufficient images from different angles; does not have description; sometimes brands switch orders, some articles I did not receive; however, all of the problems were solved
3. Websites
4. Websites

5. Moderately satisfied, when I had problems, they solve them, the bigger problem is the sizes, if they always showed the size of the model maybe could help
6. In general, the websites are intuitive, so yes, it is easy; we can search for categories
7. Extremely likely, I will continue to buy online for sure

Website preferences

8. I like a lot Mango, and it is really pretty and perfect, they have description, photos, also lifestyle pictures, every goes well, delivery is fast
9. Own brand's websites: brand recognition, trust in the brand, she knows that the product will be delivered, so it is comfortable with making the purchase; Multi-brands websites: no one suggests to her, she simply tried and liked and continue to purchase; good details of the product. If the website does not provide the payment options that she is more comfortable with, she does not buy (for example, some websites only have PayPal and she does not have so she does not buy); I would like that the websites have where the products were made because of sustainable issues that she cares
10. Needs to have a description of the product, bulleted features which sometimes helps to choose the product, pictures from different angles, she likes a lot the lifestyle pictures which allows seeing how she can conjugate different pieces, zoom necessary, video not so important, return policy and shipping conditions are essential to be present, customer reviews are only necessary when she does not know the brand; chatbots and chatlines she never use, she thinks is irrelevant since it has all the information explicit on the website; algorithm relevant; smart fitting technology it is cute, but she rarely use since she already knows her size, it only uses when it is something new.

Experience's dimensions

11. Yes, it is easy. The elements that better have this purpose are Description (composition), product's images e zoom! Missing: Photo in 3D and product's origin
12. Yes, in the sense that when it is more attractive, have beautiful and lively colors, and is clean, my experience is more positive
13. No, because until now, I used neither chatlines/chatbots nor customer support
14. Really important since we need to understand the composition of the product; zoom
15. She likes it a lot. It is missing a better composition of the product

*the names of the interviewees are fictitious, serving only for representation and presentation of the results

Appendix 5. Expert interview script

1. What is the main focus of digital strategy for fashion companies currently?
2. What is the online consumer experience?
3. Do consumers want to have a good online shopping experience? What do they value?
4. What do you think of the consumer's current online experience when buying fashion clothes? And how will it evolve?
5. Do you know what elements of the website are most important for a good online consumer experience? Which ones need to be improved by companies?
6. In 5-10 years, what elements of the website are expected to emerge to improve the fashion industry's consumer experience?
7. To evaluate the consumer's online experience, I use the dimensions of information, entertainment, social presence, and sensory appeal. Do you agree with the chosen dimensions?
8. Do you know if consumers miss something in their experience? If so, what? And how companies can tackle that issue? With your experience, is there any other dimension that should be considered or removed?
9. How important is the online consumer experience for fashion companies with e-commerce?
10. Are fashion companies concerned with providing a good shopping experience? What are they doing to improve that experience?
11. Does providing a good shopping experience benefit the company? What benefits/impacts does it have?

Appendix 6. Expert interview transcript

Filipa Pereira - 8 years of experience as a product manager; has been working at Farfetch for 5 months in Portugal, a luxury e-commerce platform that seeks to be the market leader.

1. There are several sectors within the fashion companies. Thus what they are investing in differs according to their strategy, products, and markets. However, some trends dominate the market more generally: growth/investment in the Asian market, mainly China; focus on sustainability and/or re-use and have a customized and differentiated experience for the luxury customer.

2. The online experience includes several steps: exposure to the brand through digital communication, search and "window shopping" digital version comparing various offers, choices, purchase, exchange/return, contact with customer service, messages/emails, recommendations, and every type of communication that exists with the customer. Greater promotional activity and having a loyalty program are consumer expectations in an online experience, too, closely linked to the more personalized experience.
3. Yes, customers are just as or more demanding in an online experience than in face-to-face commerce. They expect it to work smoothly and quickly, and they hope to have a more personalized experience (recommendations, discounts, loyalty benefits, etc.). They hope it is safe (e.g., payments) and have a good support service, which they can trust.
4. It depends on each company, segment, and market. There are still many improvements to be made in the online experience, but the customer is increasingly demanding and is a growing market, so the trend is to evolve positively, always focusing on improving the customer experience.
5. Some of the elements that I consider essential are detailed product information and visible purchase buttons. All elements need to be improved; online commerce always has opportunities for new developments.
6. I don't have enough knowledge to answer this question.
7. Yes, I agree. A category could be added to the follow-up/service that remains very relevant in the online experience. Although companies are increasingly investing in the self-service experience, many customers need additional advisory and contact service. The use of chatbots is an example of bringing this service dimension, even to an online environment.
8. The sensory part: knowing the color, dimensions/size of the items, feeling when dressing/wearing, etc.
9. It is yet another market to explore, and new opportunities will appear. Depending on the type of company, it may be more or less important, and it cannot be generalized.
10. Yes, of course, they do. There is a lot of competition, and it is the details in delivering this experience that can make a difference when the customer is choosing. There are several strategies, and it depends a lot on the type of company, market segment, and markets. However, I think that bringing the online experience closer to the offline

experience and an omnichannel strategy are ways that companies can improve the experience.

11. Yes. More customers, greater customer loyalty and retention, more sales, and higher value sales. Basically, it brings more profit, which is the company's ultimate goal.

Appendix 7. Descriptive statistics of multiple linear regression analysis

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
info	53	2,121.830	252.903	1,489	1,959	2,333	2,579
entertainment	53	1,497.849	380.581	619	1,260	1,748	2,535
social	53	1,195.698	407.773	580	887	1,499	2,115
sensory	53	1,283.019	473.702	527	944	1,643	2,321
desc	53	317.868	140.686	0	212	400	634
bullet	53	316.792	138.255	0	199	397	625
image	53	512.698	118.132	281	425	585	744
life	53	523.302	150.272	200	424	620	779
zoom	53	461.849	120.864	216	370	557	676
video	53	545.075	156.442	168	460	668	798
review	53	440.642	168.984	19	302	557	800
filters	53	414.132	164.770	115	300	536	800
chatbot	53	410.868	183.233	30	260	545	755
chatline	53	508.642	177.223	150	385	646	797
algor	53	458.566	166.147	138	299	594	774
fit	53	449.962	159.332	184	312	575	744
ship	53	363.245	171.670	137	248	476	800
return	53	374.755	166.122	96	249	501	784
Frequency	53	1.509	0.775	1	1	2	4

Source: R software

Appendix 8. Multiple linear regression assumptions

1. **Linear in parameters:** There is a linear relationship between the dependent variables and the independent (Wooldridge, 2013).

The model in the population can be written as:

$$informativeness = \beta_0 + \beta_1 descritivedetail + \beta_2 bulletedfeature + \beta_3 image + \dots + u$$

$$entertainment = \beta_0 + \beta_1 descritivedetail + \beta_2 bulletedfeature + \beta_3 image + \dots + u$$

$$social\ presence = \beta_0 + \beta_1 descritivedetail + \beta_2 bulletedfeature + \beta_3 image + \dots + u$$

$$sensory\ appeal = \beta_0 + \beta_1 descritivedetail + \beta_2 bulletedfeature + \beta_3 image + \dots + u$$

β_k are the unknown parameters (constants) of interest

u is an unobserved random error or error term

2. **Random sample:** Observations were selected independently and randomly from the population (Wooldridge, 2013).

3. No perfect collinearity: None of the independent variables is constant, and there is no exact linear relationship among the independent variables (Wooldridge, 2013).

All VIFs were below 10, indicating that multicollinearity does not pose a concern.

Informativeness

Variables <chr>	Tolerance <dbl>	VIF <dbl>
desc	0.3805419	2.627832
bullet	0.3511478	2.847804
image	0.3180160	3.144496
life	0.2858473	3.498371
zoom	0.4758295	2.101593
video	0.3428625	2.916621
review	0.2693246	3.712991
filters	0.1599237	6.252982
chatbot	0.2248300	4.447805
chatline	0.2099107	4.763932
algor	0.2198153	4.549274
fit	0.2102661	4.755879
return	0.1090611	9.169169
ship	0.1398909	7.148429
Frequency	0.7492324	1.334699

Entertainment

Variables <chr>	Tolerance <dbl>	VIF <dbl>
desc	0.3805419	2.627832
bullet	0.3511478	2.847804
image	0.3180160	3.144496
life	0.2858473	3.498371
zoom	0.4758295	2.101593
video	0.3428625	2.916621
review	0.2693246	3.712991
filters	0.1599237	6.252982
chatbot	0.2248300	4.447805
chatline	0.2099107	4.763932
algor	0.2198153	4.549274
fit	0.2102661	4.755879
return	0.1090611	9.169169
ship	0.1398909	7.148429
Frequency	0.7492324	1.334699

Social presence

Variables <chr>	Tolerance <dbl>	VIF <dbl>
desc	0.3805419	2.627832
bullet	0.3511478	2.847804
image	0.3180160	3.144496
life	0.2858473	3.498371
zoom	0.4758295	2.101593
video	0.3428625	2.916621
review	0.2693246	3.712991
filters	0.1599237	6.252982
chatbot	0.2248300	4.447805
chatline	0.2099107	4.763932
algor	0.2198153	4.549274
fit	0.2102661	4.755879
return	0.1090611	9.169169
ship	0.1398909	7.148429
Frequency	0.7492324	1.334699

Sensory appeal

Variables <chr>	Tolerance <dbl>	VIF <dbl>
desc	0.3805419	2.627832
bullet	0.3511478	2.847804
image	0.3180160	3.144496
life	0.2858473	3.498371
zoom	0.4758295	2.101593
video	0.3428625	2.916621
review	0.2693246	3.712991
filters	0.1599237	6.252982
chatbot	0.2248300	4.447805
chatline	0.2099107	4.763932
algor	0.2198153	4.549274
fit	0.2102661	4.755879
return	0.1090611	9.169169
ship	0.1398909	7.148429
Frequency	0.7492324	1.334699

4. Zero conditional mean: The error u has an expected value of zero given any independent variables' values (Wooldridge, 2013).

5. Homoskedasticity: The error u has the same variance given any values of the explanatory variables, this assumption is added for the Gauss-Markov theorem and for the usual ordinary least squares to be valid (Wooldridge, 2013). The formal test of heteroskedasticity, Breusch-Pagan test, was conducted, showing no presence of heteroskedasticity since the p-value in all the models is not less than 0,05, leaving to not reject the null hypothesis: homoskedasticity.

```

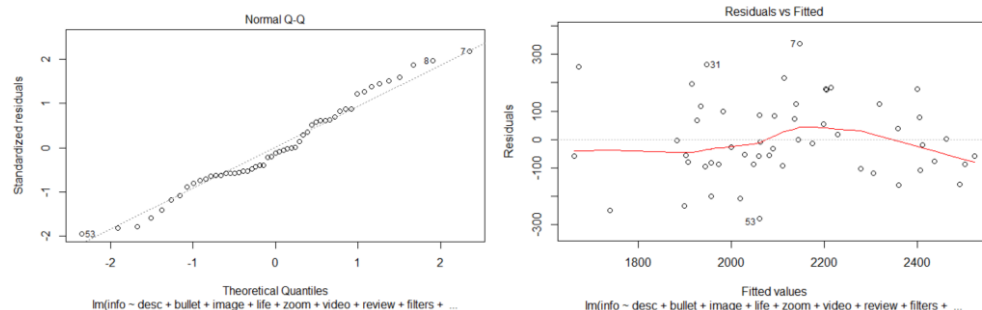
studentized Breusch-Pagan test
data: m1
BP = 15.518, df = 15, p-value = 0.4148
> bptest(m2)
studentized Breusch-Pagan test
data: m2
BP = 15.147, df = 15, p-value = 0.4409
> bptest(m3)
studentized Breusch-Pagan test
data: m3
BP = 12.576, df = 15, p-value = 0.635
> bptest(m4)
studentized Breusch-Pagan test
data: m4
BP = 14.051, df = 15, p-value = 0.5217
    
```

Source: R software

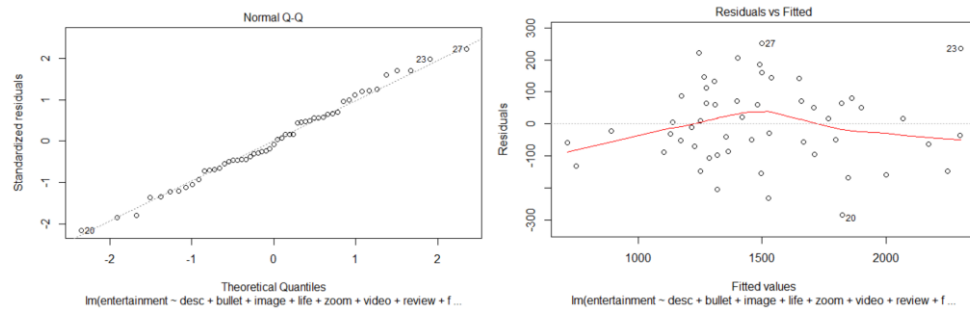
6. Normality of residuals: The population error u is independent of the explanatory variables and is normally distributed with zero mean and variance σ^2 (Wooldridge, 2013). It is used a scatterplot of residuals on the y-axis and fitted values on the x-axis to detect non-linearity, unequal error variances, and outliers. The followed plots are well-behave because the residuals are spread randomly around the 0 line, indicating that the relationship is linear; the residuals form an approximate horizontal band around the 0-line indicating homogeneity of error variance, and no residual is visibly away from the random pattern of the residuals indicating that there are no outliers (Hebbali, n.d.). With this information, the model indicates normality.

Plots for dependent variables:

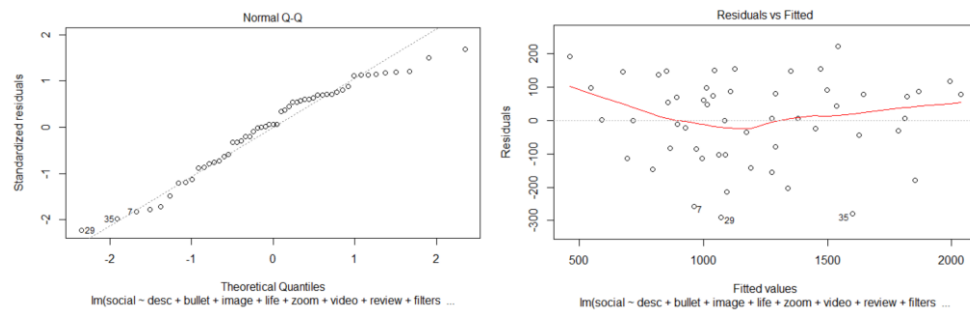
Informativeness



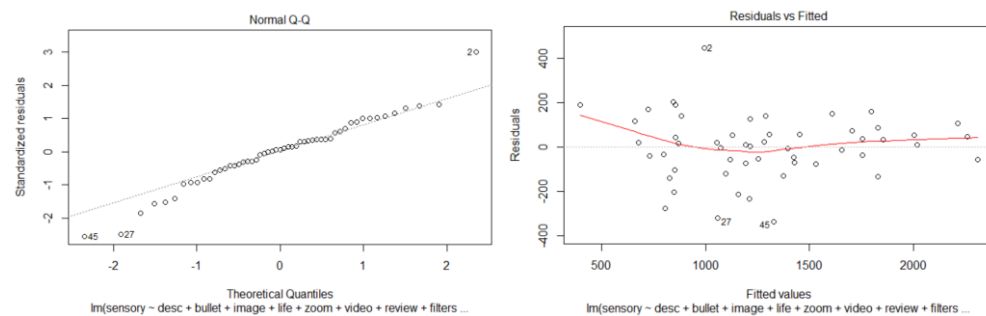
Entertainment



Social presence



Sensory appeal



Source: R software

Appendix 9. Cronbach's alpha - reliability

Table: Cronbach's alpha of dependent and independent variables

Variables	Cronbach's alpha
Informativeness	0,902
Entertainment	0,897
Social presence	0,897
Sensory appeal	0,896
Descriptive detail	0,905
Product image	0,905
Lifestyle product image	0,904
Zoom picture	0,905
Product video	0,904

Customer reviews	0,903
Recommendation algorithm	0,902
Content filters	0,902
Chatbot	0,902
Chatline	0,902
Smart fitting technology	0,902
Purchase frequency	0,906
Return policy information	0,902
Shipping information	0,902

Source: author (R software)

Appendix 10. Creating powerful online customer experiences in shopping for fast-fashion clothing

In this topic, it will be proposed a suggestion of a clothing website standard version. However, it is up to each company to adapt the suggestion to its clients and activity.

The biggest concerns of shoppers and non-shoppers when buying fashion online are the inability to touch, feel and try the product and the possibility of the real product being slightly different from the one perceived through the websites' pictures and descriptions. Accordingly, companies should invest in the balance between customers' information to make an informed decision and the benefits of buying it. Thus, customers mention that they want a high-quality product image of the product by itself, other images of a person wearing it with different angles, and different types of bodies. People also revealed to appreciate *lifestyle product images*, since it provides a view of the product in a situation similar to customer's lives, generally taken in natural light environments. The product's verbal description should include a brief explanation of the clothing product, fabric, texture, touch, style, fit, composition, product's country origin, washing details, product measures, model's measures, and model clothes' measure. This should favor the format of *descriptive detail* over the bulleted features since customers mentioned it to be less important. Moreover, bulleted features do not present any significant impact on any of the dimensions studied. However, since it is one of the top 3 best elements for presenting a product, companies should try to combine both. It should also be noted that the way companies present the products on their website should be the same for all products in order to create smoothness and harmony on the website.

Further, to better understand the product, it is suggested to use zoom pictures or features and video of the product since entertainment and allows a better sensory understanding. The video

should be an animation with a person wearing a piece of clothes and showing the product's different angles.

Moving to interface technologies, they will be referred by the level of customer's importance. Companies need to build websites where it is easy to find products. Therefore, *content filters* are an essential tool that allows customers to dictate what and how much content they want to see on the webpage. The most used filters are color, price, size, and garment type. It could also help add the occasion to use, style, material, and responsible/sustainable products. This type of content helps customers to make their decisions and easily find the products they are looking for. The same is true regarding the *recommendation algorithm*, which recommends products based on current and past browsing. This tool should display similar products, products that complete the outfit, and even products that may interest the customer based on previous research.

Customer reviews are previous customers' comments about a specific item, which received much importance. Customer reviews should be presented through a customer star rating (a visual sequence of stars), which consists of the average of the evaluations given by all the consumers who decided to review a particular product, and on a brief opinion text. This element has stronger importance on customer's purchase decision and makes the online experience more pleasant. Therefore, efforts should be made by the brands to include this element on their websites. Some incentives (e.g., points, discounts) could also be added in order to encourage customers who have already purchased the product to add their feedback on the website.

Regarding *smart fitting technology's* usefulness, some doubts came out. The purpose of this technology is to help customers to find their right size, based on some questions regarding gender, age, weight, height, belly shape, hip shape, preferred fitting, and previously purchased sizes. This element shows a positive effect on the social presence dimension, and, on average, customers agree to be useful. However, some people mentioned that, sometimes, the information provided is inconclusive. This happens because the size provided is not connected with the specific product but a general recommendation for the type of product, which can generate uncertainty that it is not the purpose of this element. Moreover, people would consider this a helpful element if it could adapt to each specific piece. Another suggestion was to provide each product's exact measures or different models with different product sizes.

People interviewed indicate that they never use any chat since the websites had all the information needed available. However, companies need to provide timely and effective

customer support since customers expect quick answers to their questions and doubts. Moreover, offering prompt and effective customer service and support is one of the best ways to boost customer experience (Fryer, 2020). It is suggested to provide the business contact (preferably cellphone) on every page of the website, and brands should also consider using *chatlines*, which is a chat with a human presence on the seller side, providing more accurate and personalized information regarding customers' questions or doubts. Additionally, chatlines showed to be more useful than chatbots. Therefore, companies should invest in creating extensive customer support since one of the mentioned advantages of buying online is the ability to shop 24/7.

Finally, customers agreed that return/exchange and shipping information is useful, and it needs to be explicitly present on the website. The *return and exchange policy information* need to be clear, informing whether clients can return and/or exchange the products bought, how much time they have to do it and where (at the store, home, and/or drop-off point), as well as, explicit state the additional costs of the process, if applied. This element has a positive effect on the social presence dimension, and customers want it to work quickly and to have the possibility to return/exchange at home for free. *Shipping information* also needs to be unambiguous, clearly stating, before the purchase step, the options of delivery places (such as at a store, home, drop point), the shipping costs, and the time it will take to arrive. Moreover, people want to have accessible shipping costs or even none.

Additional to the website design elements, online survey participants and interviewees want a more personalized experience. For example, they want to have their account, where they can save their preferred products and information. Therefore, companies should guide customers to the contents of their unique interests showing recommended products, discounts, etc. Customers also want discounts, loyalty programs, benefits, as well as a simplified checkout process with safety payments and several payment options.

Something essential to reinforce is that the online experience does not end when the customer clicks the "Confirm Purchase" button. After that moment, it is necessary to follow the client, send him/her an e-mail with an explicit and pleasant confirmation of his/her order, and e-mails about the order's status, the possibility of tracking it, among others. Currently, customers are more demanding regarding the shipping time of their orders. They are rarely willing to wait 7-10 days, and they want the product to arrive within two/three days (Statista, 2020). The package

cannot be forgotten or lost, and the careless packages ruin all the experience acquired so far. Thus, a beautiful package's arrival is a marketing opportunity not to be missed (Fryer, 2020).