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THE DETERMINANTS AND CONSEQUENCES OF E-CUSTOMER EXPERIENCE IN PRE-LOVED LUXURY FASHION

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Abstract

Purpose: This investigation aims to measure the determinants of e-customer experience in the context of pre-loved luxury fashion, and the consequences of that experience.

Methodology: For data collection, a quantitative study was developed, through a survey, that was shared through social media and Amazon Mechanical Turk. A total of 464 responses was reached, and the analysis was performed using SmartPLS 3 software, and according to the Structural Equation Modeling (SEM).

Findings: Findings confirm that the ease of use, customization, and aesthetics of the web platform affect positively the e-customer experience in pre-loved luxury fashion platforms. Furthermore, the results show that the ease of use of the web platform is the antecedent that most predicts e-customer experience, in these platforms.
Moreover, the results confirm that the greater the e-customer experience, the higher the customer's online satisfaction, loyalty, trust, and repurchase intention.

Practical implications: This study advances hints and guidance for secondhand luxury fashion companies, as it identifies the determinants that should be highlighted in their strategies to positively influence consumers' satisfaction, loyalty, trust, and repurchase intention.

Originality: This study contributes to the growing secondhand luxury fashion literature by assessing the determinants and consequences of e-customer experience in the pre-loved luxury fashion market. To the best of our knowledge, this research is the first to investigate the e-customer experience in the context of secondhand luxury fashion.

Keywords: Pre-loved, secondhand, luxury, fashion, e-customer experience, e-commerce, determinants, consequences

Resumo

Objetivo: Esta investigação tem como objetivo medir os determinantes da experiência online dos consumidores, no contexto de moda de luxo em segunda mão, bem como as consequências dessa experiência.

Metodologia: Para a recolha de dados, desenvolveu-se um estudo quantitativo, através da realização de um questionário, divulgado nas redes sociais e no Amazon Mechanical Turk. Foram alcançadas 464 respostas, e a análise foi realizada no software SmartPLS 3, de acordo com o *Structural Equation Modeling* (SEM).

Resultados: Os resultados confirmam que a facilidade de uso, personalização e estética da plataforma online afetam positivamente a experiência do consumidor online em plataformas moda de luxo em segunda-mão. Além disso, os resultados mostram que a facilidade de uso da plataforma online é o antecedente que mais afeta a experiência do consumidor, nestas plataformas. Adicionalmente, os resultados confirmam que quanto melhor a experiência online do consumidor, melhor a satisfação, lealdade, confiança e intenção de recompra online do mesmo.

Implicações práticas: Este estudo providencia dicas e orientações para empresas de moda de luxo de segunda mão, visto que identifica os antecedentes que devem ser destacados nas suas estratégias de modo a influenciar positivamente a satisfação, fidelidade, confiança e intenção de recompra dos consumidores.

Originalidade: Esta investigação contribui para a literatura emergente de moda de luxo em segunda mão, examinando os antecedentes e as consequências da experiência do cliente online no mercado de moda de luxo em segunda mão. Até onde sabemos, a experiência do consumidor num ambiente online nunca foi estudada no contexto da moda de luxo em segunda-mão. Este estudo também fornece uma análise de grupo multifatorial que revela diferenças entre consumidores com diferentes idades.

Palavras-chave: Segunda-mão, luxo, moda, experiência online do consumidor, comércio eletrónico, determinantes, consequências

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1 Introdução

Nowadays, the fashion industry mainly consists of low-quality clothing and short product life cycles. However, a wind of change is appearing, and consumers are shifting their consumption mindset. Hence, circular consumption models are being adopted, such as secondhand (e Silva, Santos, Duarte, & Vlačić, 2021).

The consumption of secondhand goods is increasing and becoming a trend in the last decades (Yang, Song, & Tong, 2017). Indeed, it is expected that the secondhand clothing sector will double its global value to 51 bn dollars by 2023 (e Silva et al., 2021). In particular, the second-hand luxury fashion market is growing and attracting younger generations of consumers, that prefer to buy secondhand for various reasons (Turunen, Cervellon, & Carey, 2020). Reports estimate the secondhand personal luxury market at over 20 billion Euros, sustaining an annual growth of 12%, particularly in Europe (Turunen et al., 2020).

Along with this tendency, e-customer experience is becoming more important within luxury fashion brands. Nowadays, with the development of new technologies, the integration of channels, and the emergence of customer communities, studying e-customer experience is not only important but necessary. In fact, customer interaction occurs in different touchpoints and brands need to provide memorable experiences in all of them (Fatma, 2014). Accordingly, due to the technological revolution, creating a positive and outstanding experience in a particular web platform is increasingly important to reach a competitive e-performance (Ha & Perks, 2005). Digital networks are transforming consumers' behaviors since they can now shop, learn, interact, and work within these electronic environments (Bolton et al., 2018).

The market of pre-loved luxury fashion is undoubtedly growing, but the available channels are also increasing. In fact, while in the past, secondhand was more often find in stores or flea markets, now there is an increase of secondhand luxury fashion stores in online channels (Turunen & Pöyry, 2019).

Of the few existing studies about online secondhand, Xu, Chen, Burman, and Zhao (2014) found that consumers have low interest to shop secondhand clothing in an online environment. Nevertheless, this study is from 2014 and since then the online secondhand market has grown, so there is a need to study this phenomenon again (N. L. Kim, Woo, &

Ramkumar, 2021). Indeed, the fast development of marketplaces and apps dedicated to pre-loved luxury fashion gave visibility to this market (Turunen et al., 2020). This increase is changing consumers' purchasing behaviors (Turunen & Pöyry, 2019) and there is a need to understand how is this affecting the e-customer experience.

This paper answers the call for future research about customer experience in the growing pre-loved luxury fashion market, in the context of e-commerce. Prior researches have centered their studies on brand-new luxury goods, but the advent of the secondhand luxury fashion market is being neglected (Turunen & Leipämaa-Leskinen, 2015). Also, customer experience in a digital context has been discussed for luxury fashion brands, but there is a significant gap when relating these concepts with the secondhand market.

Beyond this existing gap, studying e-customer experience in pre-loved luxury fashion is crucial since, in response to the Covid 19 pandemic, pre-loved luxury fashion companies had to enhance their online presence. Moreover, customers are more and more concerned with sustainability and alternatives to mass consumption, so these online platforms must provide the best e-customer experience possible. Hence, this investigation aims to answer the following research question: "Which are the antecedents and outcomes of e-customer experience in the context of pre-loved luxury fashion?". Therefore, from a management point of view, this dissertation provides knowledge to managers and marketers into how to provide a better e-customer experience, by analyzing the determinants that influence the e-customer experience in platforms, and the subsequent consequences of that experience.

The methodology used in this dissertation is quantitative and the data was gathered through a survey that was shared in social media and Amazon Mechanical Turk. For data analysis, the SmartPLS 3 software was used, and the analysis was made according to the SEM - Structural Equation Modeling method.

Besides this section, this paper starts by reviewing the literature for the main concepts that were considered relevant, such as the concept of e-customer experience, which dimensions are associated with this experience, the behavioral attitudes resulting from the experience, and the context of pre-loved luxury fashion. In section 3, the methodological approach of this investigation is presented, as well as the data collection process. Later, the results and the respective discussion are presented in sections 4 and 5, respectively. Then, the final chapters are composed of the main conclusions, limitations of this study, and suggestions for future research. Lastly, we present both an appendix and the bibliographic sources.

2 Literature Review

This section comprises the literature review with an analysis of the most relevant concepts. Each concept will be defined and explained, and a connection between the concepts will also be provided, to prove that they are linked. Along with the literature review, the approaches and results of similar studies are also stated.

2.1 Pre-loved luxury fashion

2.1.1 The concept of Luxury

There is not a clear and universal definition and classification of brand luxury (Miller & Mills, 2012). However, the majority of academic literature associates luxury brands with five core characteristics: (1) outstanding quality, (2) high transaction value, (3) distinctiveness, (4) exclusivity, and (5) craftsmanship (Fionda & Moore, 2009). Tynan, McKechnie, and Chhuon (2010) agree with the characteristics stated before, but state that the expensiveness of the products, the authentic services, and the fact that the products are not essential, are also characteristics related to luxury brands.

The association of luxury with high prices is related with the fact that luxury brands have the ability to create a dream world in which consumers want to be a part of (Kapferer & Valette-Florence, 2018). Also, one of the main motivations to buy luxury is to impress other people (Berry, 1994).

Within the luxury market, there are different categories: fashion, perfumes and cosmetics, wines and spirits, watches and jewelry, automobiles, hotels, tourism, private banking, furnishing, and airlines. However, the fashion category reports the majority of luxury goods sales (Fionda & Moore, 2009). Fashion is a complex concept that incorporates material artifacts, the way that people dress, act and feel (Polese & Blaszczyk, 2012).

The luxury fashion goods market is an important market not only in terms of its market size but also considering its rate of growth. This growth has been motivated by an increase in the demand for these goods, which made these companies improve their strategies and customer services (Fionda & Moore, 2009). In fact, customer experience is a significant part of luxury

fashion, since these brands offer high levels of symbolic and emotional values through their services (Tynan et al., 2010).

2.1.2 The pre-loved luxury fashion market

Creating a sharing economy in the fashion market is a trend that is getting more popular among millennials. The clothing market has registered a rapid increase, which concerns younger generations, due to its effects on the environment. Therefore, new and alternative consumption models such as sharing economy have arisen, contributing to a more environmentally conscious industry (Jain & Mishra, 2020).

Sharing economy has emerged due to technological development, which simplified the process of sharing goods (Hamari, Sjöklint, & Ukkonen, 2016). This phenomenon reveals the advantages of having short-term ownership of a product (Görög, 2018) and is mainly driven by three core factors. The first one is a change in consumer behavior. While in the past consumers preferred the feeling of ownership, now they prefer temporary usage. The main reasons for this change are lower prices, sustainability, and convenience (Puschmann & Alt, 2016). The second factor is the appearance and development of social networks and electronic markets. Consumers are now more connected to each other through social networks and communities, which makes them more willing to share their goods. Also, these markets reduce transaction costs and simplify the process of exchanging products. The third factor is the growth of mobile devices and electronic services, which increased the convenience of sharing goods through apps and mobile devices (Puschmann & Alt, 2016).

Considering luxury fashion, sharing economy can be divided into 'access over ownership' and 'transfer of ownership'. While in the first one, the trading activities are lending and renting, in the second one the trading activities are swapping, donating, and purchasing second-hand products (Hamari et al., 2016).

It is not new that luxury goods are now available to more consumers. This democratization of luxury can be explained by the technological development, which made these products available in different channels and sources. One of the promising trends is the second-hand markets of luxury products (Turunen & Leipämaa-Leskinen, 2015) and, according to the majority of academic literature, this market is in vogue (Turunen et al., 2020).

The definition of pre-loved luxury fashion is still not precise, but according to the literature it includes secondhand goods, vintage products, and collectors' pieces. Secondhand can be defined as things that are not new and were already owned by someone else (Lopez & Ouattara, 2021).

When one wants to buy pre-loved luxury fashion products there are two available options: go to a thrift shop or visit an online platform. Even though the number of thrift shops is increasing, online marketplaces are dominating this market. Compared to the traditional stores, e-commerce platforms provide more information about the products and the bargaining power is also superior. Some of the most famous web platforms of pre-loved luxury fashion are Depop, RealReal, Vinted, and Vestiaire Collective (Lopez & Ouattara, 2021).

These digital selling platforms are fueling the growth of this market since they position themselves as conscious alternatives to fast fashion consumption while inviting users to explore new attitudes towards sustainability, luxury experiences, and the concept of ownership (Aycock, 2021).

For online platforms that are focused on luxury fashion products, such as Vestiaire Collective, the success of the platform relies on the loyalty of the customers to specific luxury brands. These web platforms allow its customers to have access to a certain category of products and brands that they could not before (Lopez & Ouattara, 2021).

The movement towards luxury resale is growing exponentially (Aycock, 2021). Therefore, it is important to analyze what is behind the consumption of second-hand luxury fashion products (Lu, Veloutsou, & Duffy, 2019).

2.2 E-customer experience

2.2.1 The concept of e-commerce

The scientific and technological developments along with the advent of different types of economic activities were the fuel for the rise of new channels and business models. Hence, the emergence of the internet has opened new doors in various fields (Kwilinski, Volynets, Berdnik, Holovko, & Berzin, 2019), which impacts the competitive advantage of firms (Wigand, 1997).

The concept of electronic commerce, or e-commerce, has appeared in the business vocabulary after the 70s (Wigand, 1997), and it is described as the acquisition and sale of products or services through the internet (A. G. Khan, 2016). Vladimir (1996) presents a broader definition, stating that e-commerce also includes sharing business information and preserving a business' relationships, via telecommunications networks.

The development of the internet and the World Wide Web was the major driver of E-commerce (Vladimir, 1996; Wigand, 1997). It is now possible to have a virtual market anywhere in the world, without having a physical space, as well as to order goods from everywhere (Nanehkaran, 2013). Furthermore, solutions to buy and sell online are always emerging – solutions to security issues, digital cash transactions, and others. Consequently, websites are gateways for business brands, and a company that does not present a good website will not be competitive (Nanehkaran, 2013).

From the perspective of the customer, the main advantages associated with electronic commerce are: (1) the possibility to buy anytime, (2) the decrease in transaction costs, such as transport, (3) the possibility to buy from anywhere, and (3) the possibility to compare prices.

However, there are also disadvantages related to e-commerce, in the customer's perspective: (1) security, (2) it is difficult to guarantee products' quality online, and (3) limited social relationships and contacts (Nanehkaran, 2013).

2.2.2 The concept of e-customer experience

Before discussing the concept of e-customer experience, it is important to clarify the concept of customer experience itself. Customer experience is generally defined as any direct or indirect contact that a consumer has with a company (Meyer & Schwager, 2007; Stein & Ramaseshan, 2016).

The interactions between a company and a brand are commonly named 'touchpoints'. Customers have experiences every time they 'touch' a product/service or a brand (Stein & Ramaseshan, 2016), but not all the touchpoints are under the control of the company (Lemon & Verhoef, 2016). Thus, customer experience is affected by aspects that are under the firm's control and aspects that are not (Stein & Ramaseshan, 2016). Customers' motivations and

prior experiences, for instance, affect customer's expectations about future interactions but are outside firms' control (McColl-Kennedy, Zaki, Lemon, Urmetzer, & Neely, 2018).

Table 1 - Major Definitions of Customer Experience

Authors (date)	**Definition of Customer experience**
Hirschman and Holbrook (1982)	Customer experience is a specific state of consciousness based on consumption and it has three main pillars: fantasies, feeling and fun.
Schmitt (1999)	Experience occurs when a customer meets or lives things that provide him relational, emotional, sensory, behavioral, and cognitive values.
Meyer and Schwager (2007)	Customer experience can be defined as a phenomenon that involves the company offerings and the customer responses to those offerings, on a direct or indirect interaction with the firm.
Brakus, Schmitt, and Zarantonello (2009)	Customer experience results from each service exchange or interaction with any touchpoint of the company.
De Keyser, Lemon, Klaus, and Keiningham (2015)	Customer experience is the cognitive, emotional, physical, sensorial, spiritual, and social elements that result from any direct or indirect interaction with the firm.
Lipkin (2016)	Customer experience is holistic in nature and is related with the interaction of the customer with the service provider through cognitive, affective, social, and physical dimensions.

Today, experience is increasingly important to determine a company's success (Gentile, Spiller, & Noci, 2007) and it is crucial to sustain a competitive advantage (McColl-Kennedy et al., 2018; Stein & Ramaseshan, 2016). Consumers desire experiences and according to Pine and Gilmore (1998) there are five key design principles to make an experience memorable: (1) develop a concise and compelling theme of the experience; (2) harmonize impressions with positive cues; (3) eliminate negative cues; (4) mix in memorabilia – consumers are willing to pay for memorabilia as a physical reminder of an engaging experience they had; (5) engage all five senses.

Technological developments are transforming customer experience and companies need to adapt quickly and efficiently, in order to keep up with the competition (Bolton et al., 2018). Hence, companies must become customer-centric (Melero, Sese, & Verhoef, 2016) and create memorable customer experience in both offline and online channels (Lemon & Verhoef, 2016).

E-customer experience is not only the interaction with the website, but also the distribution of the product, customer assistance, consumption of the product/service, and the post-sale service (Petre, Minocha, & Roberts, 2006). According to Nysveen and Pedersen (2004), internet experience is the general experience of using the internet plus the interaction of a specific customer on a specific website. Even though the literature about the concept of online customer experience is still limited, it is logical to assume that it is made up of cognitive and emotional states (Rose, Hair, & Clark, 2011).

As seen, the online customer experience is a difficult, holistic, and subjective process that results from the interaction among consumers, purchasing behaviors, and the online environment. This environment includes the website, social media, online reviews, and other online features (Michaud Trevinal & Stenger, 2014). The conceptualization of customer experience can be supported into four dimensions: (1) physical, (2) ideological, (3) pragmatic, and (4) social. In detail, the physical dimension refers to the consumer's senses in contact with the online environment, meaning the emotions created by the features and the design of the website, as well as the length of the experience and the time management. The ideological dimension implies the shopping values of the consumers, such as trust and privacy issues, and online behaviors. The pragmatic dimension involves the online patronage, habits, and strategies that the consumers have in order to prepare the purchase and at the moment of purchase. Lastly, the social dimension refers to customer's presence in social environments – social media, communities, and online reviews (Michaud Trevinal & Stenger, 2014).

Comparing the online and offline customer experience, it is essential to underline the differences between the degree of personal contact. While in the online environment, this contact could be non-existent, in an offline environment it could be very high. Moreover, in terms of information, online environments can provide information more easily than offline ones. The most obvious difference between the two channels is time management since in the online experience customers can purchase wherever and whenever they want or prefer,

while in the face-to-face context they are restricted by schedules and rules. Lastly, there are also differences in the way the brand is presented. While in an offline channel there are various ways to present the brand, in online it is mostly through audio-visual (Rose, Clark, Samouel, & Hair, 2012).

Nowadays, customers interact with companies through diverse touchpoints and channels (Lemon & Verhoef, 2016). In addition, to use alternative channels to purchase products/services, customers now use these new channels to give feedback, ask for information or help, and verify products' features and availability. Moreover, customers can start their purchase experience online, searching for a product, and end it in a store (Melero et al., 2016). Consequently, firms need to integrate multiple business functions and maintain congruence among physical, digital, and social domains for every consumer (Bolton et al., 2018).

The e-commerce solution attracts customers since it is one of the fastest ways to shop (Ha & Perks, 2005), customers can easily compare products' prices and features, and they can have access to reviews and communicate with other customers (Bolton et al., 2018). Social networks, online websites, and mobile web, gave customers more power than they have ever had (Stein & Ramaseshan, 2016).

2.2.3 E-customer experience in luxury fashion

Luxury is no longer its traditional definition, it is now experiential, including different stages of customer involvement and connection (Atwal & Williams, 2017). Customer Experience in luxury fashion is a key strategic differentiator and is "*considered the next competitive battleground*" (Manthiou, 2020, p. 1178). This experimentalism is associated with the fact that consumers desire to consume products that provide them pleasure (Vickers & Renand, 2003). This desire is related to the fact that fashion luxury brands provide the feeling of exclusivity, distinctive, upper-scale, and excitement to their customers (Prentice & Loureiro, 2018).

Even though luxury fashion products are more expensive than non-luxury, consumers prefer to buy them because of their intensive connection with the brand through engaging experiences, which can be pursued either online or offline (Prentice & Loureiro, 2018). In fact, according to the Brand Luxury Model, when consumers feel identified with a brand and

with the other users of that brand, associated with symbolic and experiential consumption value, they do not mind paying more to become part of that group of people (Miller & Mills, 2012). This customer engagement is then manifested in the post-experience, by referring to the brand and sharing the brand experience (Kumar et al., 2010).

Therefore, one of the most important ambitions of a luxury brand is to provide an exceptional and unforgettable experience, which differentiates a luxury from a non-luxury brand (Spence, Puccinelli, Grewal, & Roggeveen, 2014). It is important to note that with new social media trends and the appearance of young luxury fashion consumers, luxury fashion brands need to develop innovative and forward-looking strategies if they want to keep relevant in the market (Ko, Phau, & Aiello, 2016).

In order to create novel values and differentiate from the competition, luxury fashion brands have focused their marketing strategy on digital communication, not only through social media but also through online sales (Heine & Berghaus, 2014). The current Covid-19 crises has only accelerated this tendency, challenging the luxury brands' customer experiences practices. Actually, nowadays it is not enough to offer the option of online purchase, customers demand more features, and will abandon companies that do not offer what they desire (Manthiou, 2020).

Luxury market has been strongly affected by the rapid technological revolution. However, while for other fields digitalization is an opportunity and an advantage, for luxury it has been a challenging and slow adaptation (Rios, 2016). Luxury fashion brands face a dilemma: on one hand, they have the opportunity to connect and engage online with consumers, but on the other hand, this interaction could affect the typical exclusivity of these brands (Bjørn-Andersen & Hansen, 2011).

Luxury is not a product, a service, or a lifestyle. Instead, it is a philosophy, a culture, and an identity. Hence, the online integration of luxury brands is not easy, since creating desire and exclusivity in an online environment, where mass consumers can have access, is a major challenge. In fact, the main features of the internet and digital environments are the possibility of reaching global consumers, low transaction costs, low switching costs, lack of physical contact, lots of variety and availability, and convenience. However, these characteristics are the opposite of luxury fashion values (Okonkwo, 2009). Luxury is related to uniqueness, and it seems impossible to maintain it in an online environment. Moreover,

luxury is considered multisensorial, so physical contact is important, either with the product or with the sellers (Guercini, Ranfagni, & Runfola, 2020).

However, the reality is that luxury brands are already going online, and luxury can be successful on digital platforms. The question of selling online or not should no longer be raised, but it is still important to understand the challenges for luxury brands on the Internet (Okonkwo, 2009).

The first challenge is the need for a corporate change since the online integration of luxury fashion companies requires new strategies and practices. The second challenge is the recognition of the internet as not only a way of advertising, but also a multidimensional channel. In fact, internet is crucial in different managing fields, such as communication, branding, customer service, logistics, operations, marketing, and more. The third challenge of luxury's online integration is communicating brands' values through the website. Hence, it is mandatory to have a strategic website design, including dimensions like usability, functionality, content, relevance, aesthetics, and luxury online atmosphere. The fourth challenge is to understand that the brand's website is integrated into a whole web ecosystem, so it is imperative to be well-positioned in cyberspace. The fifth challenge is to understand online customers' behaviors. The sixth challenge is to create an engaging online store design and atmosphere so that consumers feel that they are in a store instead of just staring at a computer. The last challenge is to be able to engage luxury consumers in social web communities (Okonkwo, 2009).

Besides these challenges, new technological developments are favorable for luxury's online integration. The improvements in both hardware and software technologies enable a better online experience. Moreover, new visual online merchandising techniques improve communication and distribution (Guercini et al., 2020). Indeed, the traditional belief that luxury is meant to be in store is changing. New emerging technologies, such as 3D content, AR, and e-CRM allow exceptional online experiences. Due to technology development, customers can have seamless customer service, engaging interactions, and positive emotional connections with the brand, which increase trust and e-loyalty (J.-H. Kim, 2019).

2.2.4 Determinants of e-customer experience in pre-loved luxury fashion platforms

As mentioned, the online channel is growing, and e-customer experience is increasingly important for companies to stablish a competitive position in the market (Waqas, Hamzah, & Salleh, 2021). Therefore, to manage and provide the greatest customer experience it is important to study the determinants of e-customer experience, in the context of pre-loved luxury fashion platforms (Rose et al., 2012).

Ease of use of the web platform

The ease of use of an online platform reflects how simple it is to navigate in that platform.In other words, how easily consumers can achieve their purchasing goals (Corritore, Kracher, & Wiedenbeck, 2003). It can also be defined as the perception a customer has that using a particular web platform will not demand effort (Chiou, 2011). Effort can be defined as a limited resource that a customer may need to allocate to the activities he or she is performing (Ramayah, 2006).

Users form an opinion about a particular web platform after only a brief interaction with that platform (Aljukhadar & Senecal, 2015). If everything else stays the same, a platform that is recognized as simpler to use will be more probable to be accepted by consumers (Ramayah, 2006).

Therefore, the ease of use of a web platform is essential in determining users' experiences, so it is a crucial aspect in designing a successful web platform (Aljukhadar & Senecal, 2015).

Some studies have already tested the relationship between ease of use of the web platform and online customer experience. However, the results are still very contradictory. While Barbu, Florea, Dabija, and Barbu (2021) discovered that the link between ease of use and e-customer experience was not significant, Gonçalves, Patrício, Teixeira, and Wuenderlich (2020) proved that ease of use positively affects the e-customer experience.

Our study will clarify this relationship in the context of secondhand luxury fashion.

Thus, the following hypothesis is proposed:

H1: The ease of use of a pre-loved luxury fashion web platform affects positively the e-customer experience.

Customization

Customization is a strategic tool in e-retailing and it is used to satisfy and provide additional value to customers. Customization features are related to the offer of personalized services and products based on the individual's preferences (Cho & Fiorito, 2009).

The digital era enabled new opportunities for the customization of products and services that were not possible before. Internet is favorable for customization since it simplifies the relation seller-customer. Consumers can state their preferences and sellers can adapt their offers (Gvili & Poria, 2005).

Literature suggests that customization has a positive influence on economies of scale, customer loyalty, customer satisfaction, and other positive perceptions of quality. In fact, from the customers' perspective, customization provides superior value, by offering products that satisfy their individual needs (Gvili & Poria, 2005). Customization can also provide a more unique customer experience. Indeed, consumers are eager to pay a higher price for products that meet their needs (Yeung, Choi, & Chiu, 2010).

Garg, Rahman, and Qureshi (2014) proved that customization in web platforms affected customer experience. However, his study was not in the secondhand luxury fashion context.

Based on the prior research, the following hypothesis is proposed:

H2: The customization of a pre-loved luxury fashion web platform affects positively the e-customer experience.

Social interactions

The increasing interest and popularity of social media networks gave opportunity to a new type of e-commerce, which is named social commerce (Curty & Zhang, 2013).

Social commerce provides functionalities that encourage consumers to share their experience, through comments, reviews, ratings, recommendation lists, and tags. Therefore, this user-generated content enhances social sharing and influences users purchasing behaviors. In order to improve social interactions, websites can add features such as wish lists, discussion forums, product reviews, videos, blogs, podcasts, tagging, social networks, ranking tools, and recommendation systems (Li, 2019).

When a user perceives positive social aspects, delivered by the technology of a web platform, he or she will react positively toward that platform and will probably be more interested in using it, mainly for the social interaction experience. Moreover, when a consumer reacts positively to the social features of the web platform, the anticipated difficulties with the website's technology may alleviate (Wakefield, Wakefield, Baker, & Wang, 2011). Therefore, social interactions can play as online incentives to impact the online experience of users (E. Huang, 2012).

Srivastava and Kaul (2014) proved that social interactions affect positively customer experience. Our study will test the relationship between social interactions and the e-customer experience in the context of pre-loved luxury fashion consumption.

Therefore, the following hypothesis is suggested:

H3: Social interactions of a pre-loved luxury fashion web platform affects positively the e-customer experience.

Aesthetics

The term "aesthetics" is commonly related to beauty. While some researchers state that aesthetics is a purely subjective concept, others say that there is a level of objectivity and general agreement in aesthetics (Jiang, Wang, Tan, & Yu, 2016).

Humans are continuously making choices based on aesthetics (Hoffmann & Krauss, 2004), and in recent years, it has been recognized that the aesthetics of a website is increasingly important, which leads to a more experiential perspective (Moshagen & Thielsch, 2010).

Indeed, visual aesthetics seems to improve the usability and performance of a website. Moreover, aesthetics may also have a positive influence on the credibility and trustworthiness of the website, as well as an influence on the satisfaction, preference, impulsiveness, intention to revisit, fun, joy, pleasure, and loyalty of customers (Moshagen & Thielsch, 2010). In fact, all else staying constant, an e-commerce website with an appealing design leads to more sales in the long term and increases online consumers' shopping value (Jiang et al., 2016).

Many studies have already analyzed the relation between usability and aesthetics before and after a website purchase. However, they found a stronger relationship in the pre-purchase, but this relationship needs to be explored further (Thielsch, Blotenberg, & Jaron, 2014).

To better explore this relationship our study proposes the following hypothesis:

H4: The aesthetics of pre-love luxury fashion web platform affect positively the e-customer experience.

2.2.5 Consequences of e-customer experience in pre-loved luxury fashion platforms

Online customer satisfaction

Customer satisfaction can be described as the accumulated customer experiences, or the good experiences minus the bad ones (Rose et al., 2011). Early studies state that a consumer feels satisfaction when the experience surpasses their expectation. However, recent researches defend that customer satisfaction is directly related to service quality, in addition to expectation (Sheng & Liu, 2010). Therefore, if customer satisfaction is not achieved, a company may not survive (Syahnur, Basalamah, & Gani, 2020).

Online customer satisfaction in an online environment can be defined as the way consumers perceived the retail online experience, in comparation to their experience with the conventional street stores (Sahadev & Purani, 2008).

Online customer satisfaction can be divided into 3 stages: pre-purchase satisfaction, which is related to all the activities before the placement of the order (search of products, comparison of prices or products); at-purchase satisfaction, which is focused on the experience that the customer has on the placement of the order and on the payment process; and lastly, post-purchase satisfaction, which is related with the service after the purchase, such as returns and refunds and online customer support (Khalifa & Liu, 2007).

Based on the above findings, the following hypothesis is suggested:

H5: The greater the e-customer experience in pre-loved luxury fashion web platforms, the higher the level of online customer satisfaction.

Online Repurchase intention

Repurchase intention is defined as the intention to purchase again from a specific seller (Khalifa & Liu, 2007). In the online environment, it is described as the willingness to use again the online platform to buy from a specific seller. (Y. Liu, Pu, Guan, & Yang, 2016). Repurchase intention is always based on a previous experience on the same platform (C. Kim, Galliers, Shin, Ryoo, & Kim, 2012).

Previous studies say that intention is the best immediate component in the link between attitude and behavior, and is suitable to check the behavior of consumers. Online repurchase intention is the intention not only to use a web platform but also to consume (Wen, Prybutok, & Xu, 2011).

Repurchase intention is based on prior experience using the same web platform. To develop a repurchase intention, consumers depend on the qualification of the prior experience. Consequently, retailers should give special attention to provide a good customer experience, so that consumers desire to repurchase the product (Mustikasari, Krisnawati, & Sutrisno, 2021). Thus, the following hypothesis is suggested:

H6: The greater the e-customer experience in pre-loved luxury fashion web platforms, the higher the level of online repurchase intention.

Online Trust

Online trust can be defined as the belief that online sellers fulfill their promises, respect the rules, and provide good products and services, with the right quality (Nguyen & Khoa, 2019). Another definition is the belief that allows consumers to be vulnerable, believing that the online seller will act in the consumers' interest and will behave honestly and reliably (Hidayat, Saifullah, & Ishak, 2016).

One of the explanations for consumers not buying from online platforms is the lack of trust. Trust is related to unpredictability, and in online platforms, this unpredictability seems to increase (Sahadev & Purani, 2008). Therefore, developing a certain level of confidence in the online environment is critical (Hidayat et al., 2016). In fact, with the lack of face-to-face contact, the feeling of trust is even more important (Hidayat et al., 2016).

Trust is achieved when consumers develop positive expectations about a specific service. These expectations are a result of a consistent quality, reliable service, and fulfillment of customers' needs and interests (Lee & Jeong, 2014). According to Micu, Bouzaabia, Bouzaabia, Micu, and Capatina (2019), online customer experiences affect online trust. In fact, a positive experience with a website is crucial to consumers' online trust. Hence, when consumers find a web platform useful and easy to use they perceive it as being more trustworthy (Koufaris & Hampton-Sosa, 2002).

Based on the aforementioned research, the following hypothesis is proposed:

H7: The greater the e-customer experience in pre-loved luxury fashion web platforms, the higher the level of online trust.

Online customer loyalty

Retaining current customers is increasingly important. Online customer loyalty is defined as the commitment to a preferred online channel (C.-T. Liu, Guo, & Lee, 2011). Another definition states that online customer loyalty is a profound commitment, in which a specific online channel is consistently preferred, despite situational effect and advertising efforts that could lead the consumer to choose another (Hidayat et al., 2016).

Online customer loyalty can be divided into two meanings: long-term loyalty, in which consumers do not switch to another online platform; and short-term loyalty, in which consumers switch more easily to a preferred alternative (C.-T. Liu et al., 2011).

The development of internet has generated a very competitive situation, in which transaction and switching costs are very low so consumers can change from one service to another very easily. Hence, the relationship between the seller and the customer is weakened, since consumers can exchange and compare information almost effortlessly (Eng & Jin Kim, 2006).

Customer loyalty is higher for online services, comparing to the offline context. Therefore, customer loyalty is a crucial asset for e-commerce players, and can even be a decisive factor for the survival of a website. Accordingly, loyal customers tend to refer their preferred website to new customers. Moreover, loyal customers are eager to pay more for the same service (Hidayat et al., 2016).

While some authors state that online customer loyalty is directly related to online customer satisfaction, others defend that online customer loyalty is associated with previous experiences. From a personal perspective, friends' loyalty is centered on the experiences they shared. Therefore, even when dissatisfied with a service, consumers can still use a service when it is a case of high levels of loyalty (Buttle & Burton, 2002).

In Caruana (2002) study, the link between customer experience and loyalty could not be proven. Instead, he proved that the effect of customer experience on customer loyalty was only significant via customer satisfaction. Furthermore, Barbu et al. (2021) could not prove the relationship between customer experience and customer loyalty either. However, Klaus and Maklan (2013) proved that customer experience had a significant impact on loyalty intentions. Consequently, to increase loyalty managers should focus on creating memorable experiences.

In this study, we will try to prove the relationship between e-customer experience and online customer loyalty, in a secondhand luxury fashion context. Consequently, the following hypothesis is proposed:

H8: The greater the e-customer experience in pre-loved luxury fashion web platforms, the higher the level of online customer loyalty.

2.2.6 Moderators: motivations to purchase pre-loved luxury fashion

Motivation can be defined as the reason for behaving in a way that fulfills the desire, necessity, or goal of an individual (Aycock, 2021).

Online customer loyalty is defined as the commitment to a preferred online channel consistently in the future (C.-T. Liu et al., 2011), and it is enhanced by emotions of pleasure and fulfillment, which are created by positive customer experiences. Therefore, positive e-customer experiences have a positive effect on online customer loyalty (Stein & Ramaseshan, 2019).

Furthermore, e-customer experience is contextual. The pleasure an individual feels from an experience depends on his/her motivations. Hence, since customer experience is built on customer's internal and situational contexts, consumer evaluations and emotional responses

at different touchpoints, and consequent behavioral outcomes, such as loyalty, must consider consumer's motivations and goals (Stein & Ramaseshan, 2019).

To the best of our knowledge, previous research has not investigated the effect of motivations on the link between online customer experience and online customer loyalty, in the context of secondhand luxury fashion consumption. Based on the above findings, we propose that sustainability, fashion consciousness, and economic motivations moderate the effect of e-customer experience on online customer loyalty.

Sustainability:

Sustainability is related to the well-being of future generations and with irreplaceable and limited resources (Kuhlman & Farrington, 2010).

Traditionally, clothing was made to last longer, so consumers used to carefully choose the products they would buy since the prices were much higher. However, competition based on lower prices decreased the quality of the fashion products, which are now seen as disposable products. The craftmanship of the product is no longer crucial and consumers do not have a connection with their clothing. Consequently, nowadays fashion industry represents unnecessary waste unless a secondhand market exists (Ozdamar Ertekin & Atik, 2015).

Therefore, environmental consciousness is one of the motivational factors for purchasing secondhand luxury goods. Consumers seem to feel proud of their used products when thinking that they are fighting fast-fashion and overconsumption (Turunen & Pöyry, 2019). Environmentally conscious consumers are more likely to change their consumption habits, so they are more likely to use second-hand platforms (Parguel, Lunardo, & Benoit-Moreau, 2017).

Fashion industry is one of the most polluting industries, and second hand allows the maximization of products' lifespan, which minimizes the environmental impact of these products (Rendel, 2021).

H8a: Sustainability strengthens the relationship between e-customer experience and online customer loyalty.

Fashion consciousness:

Fashion consciousness is related to the fact that consumers prefer fashionable products. Even though secondhand luxury fashion sells pre-used products, it does not mean that those items are outdated, since they sometimes gain value over time. Moreover, secondhand luxury fashion can be the right choice for consumers who want to find authentic versions of currently trending and fashionable products (Turunen & Pöyry, 2019).

Furthermore, consumers like unique pieces and enjoy finding hidden treasures, so they prefer platforms that carefully select their secondhand luxury fashion items (e Silva et al., 2021).

Unlike the previous times, when secondhand was related to cheap and undesirable products, nowadays secondhand is considered desirable fashion. In fact, some products are more expensive, since time and scarcity increase their value. Especially in high-end fashion, designer pieces from a specific period gain value due to their uniqueness (Ferraro, Sands, & Brace-Govan, 2016).

Hence, secondhand motivations have evolved (Ferraro et al., 2016) and fashion consciousness motivations are related to the need for unique, authentic, original, and stylist pieces. Consumers desire a distinctive fashion style, avoiding mainstream fashion, and secondhand platforms seem the right choice to find these products. Also, consumers who are conscious about fashion desire new and diverse products and gain excitement from those products (Zaman, Park, Kim, & Park, 2019).

Moreover, nowadays the clothes we wear represent our identity, values, and ambitions. Therefore, purchasing secondhand fashion not only represents a unique style but also sustainable concerns (Brummer, 2020). Thus, consumers who are conscious about fashion are probably more expected to engage in secondhand shopping consumption (Zaman et al., 2019).

H8b: Fashion consciousness strengthens the relationship between e-customer experience and online customer loyalty.

Economic motivations:

Economic motivations are usually related to price sensitivity and the search for a price that the consumer considers as fair. Secondhand enables consumers to ease the financial pressure since secondhand items are usually cheaper than the new ones (Ferraro et al., 2016).

Previous researches state that younger generations are the ones who most purchase secondhand fashion products. These generations do not always receive a stable income, so the price of secondhand products is more appealing (Rendel, 2021).

In previous times, secondhand fashion was associated with less fortunate consumers. In fact, the opportunity to bargain prices was one of the reasons for people to purchase secondhand products. Hence, consumption of secondhand fashion items was strongly associated with consumers who lived with a limited income (Xu et al., 2014).

However, nowadays secondhand is a way to find quality and branded products for a lower price (Padmavathy, Swapana, & Paul, 2019).

From another point of view, the resale value consciousness is also an economic dimension. Many consumers purchase a luxury fashion secondhand item as an investment since they are already thinking about selling the product in the future (Turunen & Pöyry, 2019).

H8c: Economic motivations strengthen the relationship between e-customer experience and online customer loyalty.

Taking into consideration the aforementioned research and the presented hypotheses, the following conceptual framework is proposed:

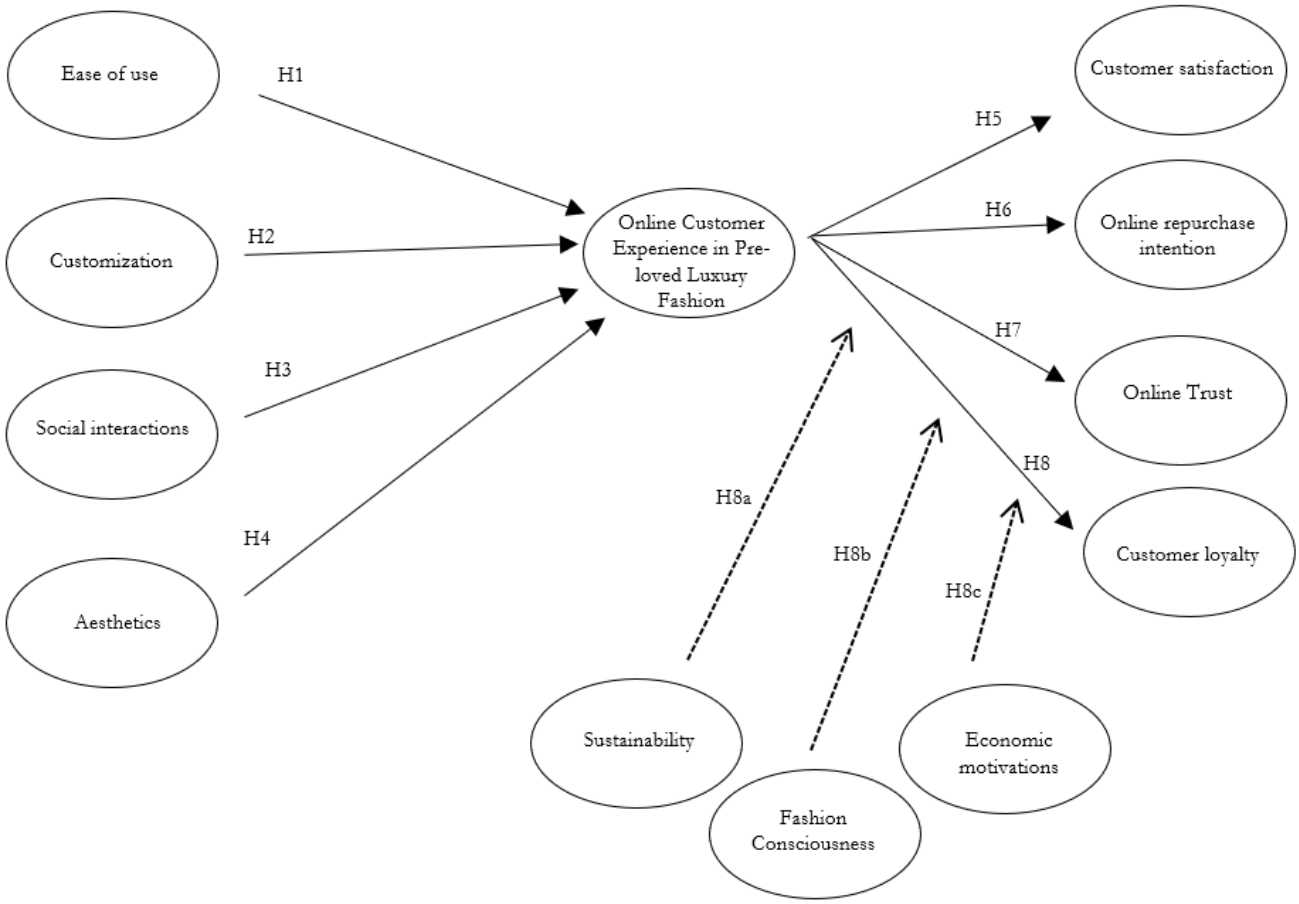


Figure 1 - Conceptual framework

3 Methodology

After the literature review provided some key concepts and theories, the following chapter addresses the methodologic procedures of our study. The methodology used is quantitative, in order to provide solid and accurate data to academia.

3.1 Measures

In order to address the validity of the study's research hypothesis, a quantitative methodology was used. This methodology intends to achieve accurate and truthful measurements to sustain the statistical analysis (Queirós, Faria, & Almeida, 2017). Therefore, a self-administrated electronic questionnaire was developed and launched.

At the beggining of the questionnaire, specific questions were asked in order to know if the survey takers had previously bought second-hand luxury fashion products online. Only the respondents who had already purchased these types of products were considered to answer the following survey.

The questionnaire was written in English. The survey was consisted of a total of 48 items, and the constructs were established based on existed scales from previous studies (see Table 2 and Appendix 2).

Table 2 - Constructs for the research model

Construct	Definition	Adapted from
Ease of use of the web platform	The perception that a customer has that using a particular web platform will not require effort.	Chiou (2011)
Customization	Personal personalization of the website's appearance and functionalities.	Rose et al. (2012)
Aesthetics	The aesthetics of an online platform is associated with color, graphics, layout, and design.	Rose et al. (2012)

Social interactions	"online interpersonal interactions"	Caplan (2003)
E-customer experience	"cognitive state experienced during navigation"	Novak, Hoffman, and Yung (2000)
Online repurchase intention	Intention to re-use a particular online channel to purchase a product/service.	Khalifa and Liu (2007)
Online customer loyalty	Commitment to a preferred online channel consistently in the future.	C.-T. Liu et al. (2011)
Online customer satisfaction	Contentment about the purchasing experience the customer had in the pre-loved luxury online platform.	Ha and Perks (2005)
Online Trust	The willingness of the average consumer to believe in the online platform to perform what the consumer wants.	Ha and Perks (2005)
Economic motivations	Consumers desire to obtain branded products for a lower price.	Machado, de Almeida, Bollick, and Bragagnolo (2019)
Sustainability	Ecological meaning that is attached to luxury secondhand possessions.	Turunen and Leipämaa-Leskinen (2015)
Fashion consciousness	Consumers preference for fashionable and trendy products.	Turunen and Pöyry (2019)

The items used to measure the ease of use of the web platform were adapted from Gefen (2003). The items used to measure the customization and the aesthetics of the web platform were adapted from Rose et al. (2012). Five items adapted from (Z. Huang & Benyoucef, 2015) were used to analyze the influence of social interactions on web platforms.

Regarding the e-customer experience, respondents were asked to write down the name of the last website where they purchased a second-hand luxury fashion product. The following questions were answered regarding that website. Therefore, the twelve items regarding the e-customer experience, adapted from Vakulenko, Shams, Hellström, and Hjort (2019), were answered regarding the last experience respondents had.

The consequences of the e-customer experience were also evaluated regarding the last website of pre-loved luxury fashion respondents bought at. Hence, online repurchase intention was analyzed using a three item-scale adapted from Khalifa and Liu (2007). Furthermore, the items used to measure the online customer satisfaction of the website chosen by the respondents were adapted from Ha and Perks (2005). Additionally, three items adapted from I. Khan, Hollebeek, Fatma, Islam, and Rahman (2019) were used to evaluate online customer loyalty. Lastly, the online trust is measured with a five item-scale adapted from Nguyen and Khoa (2019).

In some cases, when designing the survey, the phrasing of the scales was slightly adapted to better fit the context and the purpose of the study.

To measure the constructs a 7-point Likert scale, ranging from 1=totally disagree to 7=totally agree, was chosen based on Altuna and müge Arslan (2016), who performed a confirmatory factor analysis that showed that the best fit is achieved for the 7-point scale, compared to the 5-point Likert scale.

3.2 Data and sample collection

After designing the survey, it was tested by 5 Portuguese participants to verify the clarity of the items and then adjust any misunderstandings, in order to avoid biased answers and wrong interpretations.

The questionnaire was built on Google Forms and shared in social media and in Amazon Mechanical Turk, which is a well-known crowdsourcing platform (Wang, Zhu, Li, Cui, & Konstan, 2017). The main advantages of MTurk are the access to more and more varied participants, the simplicity of access and speed of data collection, the low cost, and the flexibility with the research design (Aguinis, Villamor, & Ramani, 2021).

In total, 964 responses were collected. However, from those, only 478 had already purchased second-hand luxury fashion products online. For the other 486 respondents who affirmed

that they had never purchased these kinds of products online, the main reasons are the fear that the products are not authentic, the uncertainty about the cleanness of the products, and the fear that the quality of the products does not correspond to their expectations.

For this analyze only the 478 responders who had already purchased pre-loved luxury fashion online were considered. Moreover, 14 responses were eliminated since the web platform the respondents mentioned was not related to secondhand luxury fashion. Therefore, the final sample is constituted of 464 responses. According to Hair (2009), in SEM the sample size should be at least 10 respondents per parameter and a minimum of 200 sample size, which is verified in our study.

Regarding the sample demographic profiles, in percentage terms, 53.23% of respondents were female, 45.69% were male and the others preferred to not reveal their gender. Regarding the age range, the majority of respondents (29.31%) were in the age group 25-34 years old, followed by the age group of 18-24 (22.63%) and then 35-44 (22.20%). Considering the nationality, the majority of the respondents were from Europe (53.88%), followed by North America (28.02%). In terms of educations, the bulk of respondents held high school (53.3%), followed by Bachelor's degree (20.69%). Regarding the main occupation, more than half of the respondents were employees (56.03%). For net monthly income, most of the respondents reported an income from 1800€ to 2399€ (19.18%), and 18.97% reported an income less than 600€.

Furthermore, 44.3% of respondents reported purchasing online secondhand luxury fashion items at least once a year, 21.7% more than once a year, and 34% less than once a year. Additionally, before Covid 19 Pandemic, 55% of the respondents preferred to buy online, compared to in-store, and after the Covid 19 Pandemic this percentage increases to 89%. Therefore, the Covid 19 Pandemic increased by 62% the percentage of respondents that prefer to buy online compared to in-store.

Moreover, when asked to compare the experience of buying secondhand luxury fashion products online and in-store, 49% of the respondents reported that the experience was the same, 38% prefer the online experience and 13% prefer the in-store customer experience.

Lastly, 53% of the respondents reported that the experience of buying online secondhand luxury fashion products and online brand-new products luxury fashion products is the same, 36% reported that the secondhand online customer experience is better, and 11% say it is worse.

Table 3 - Demographic profile of the respondents

Demographic variables N=464	Total	
	N	%
Gender		
Female	247	53.23%
Male	212	45.69%
Prefer not to say	5	1.08%
Age Range		
Less than 18	3	0.65%
18-24	105	22.63%
25-34	136	29.31%
35-44	103	22.20%
45-54	95	20.47%
55-64	15	3.23%
More than 64	7	1.51%
Continent		
Europe	250	53.88%
North America	130	28.02%
South America	22	4.74%
Asia	48	10.34%
Africa	14	3.02%
Education		
Middle school	5	17.24%
High School	80	53.23%
Bachelor's degree	247	20.69%
Master's degree	96	2.37%
PhD	11	5.39%
Other	25	17.24%
Main Occupation		
Student	40	8.62%
Worker/student	45	9.70%
Employee	260	56.03%
Self-employed	89	19.18%
Unemployed	22	4.74%
Retired	4	0.86%
Other	4	0.86%
Net monthly income		
Less than 600€	88	18.97%
600€ to 1199€	75	16.16%
1200€ to 1799€	68	14.66%
1800€ to 2399€	89	19.18%
2400€ to 2999€	47	10.13%
More than 3000€	44	9.48%
Prefer not to say	53	11.42%

4 Results

The statistical analysis of the data that was gathered from the questionnaire was performed through SmartPLS 3, and data analysis will be based on Structural Equation Modeling (SEM).

SEM implies a significant set of techniques based on the general linear modeling (Ullman & Bentler, 2003) and it merges multivariate regression and factor analysis (Savalei & Bentler, 2010).

One of the main benefits of the Structure Equational Model is that it allows testing multivariate models in a single study (Weston & Gore Jr, 2006). Most of the success of this methodology can be attributed to the fact that not only SEM evaluates the measurement of latent variables but it also tests relationships between those latent variables (Hair Jr, Sarstedt, Hopkins, & Kuppelwieser, 2014).

This study opted to apply the Partial Least Square-Structural Equation Modelling (PLS-SEM) for the data analysis. PLS is based on an iterative method that maximizes the explained variance of endogenous constructs. Unlike other methodologies, PLS-SEM operates similarly to multiple regression analysis(Hair Jr et al., 2014).

PLS-SEM should be employed when the analysis is concerned with testing a conceptual model from a prediction perspective and when the sample size is relatively small (Hair, Risher, Sarstedt, & Ringle, 2019). Therefore, this methodology seems to be the better fit for our research.

4.1 Reliability and Validity

Using SmartPLS 3, the reliability and validity of the measures were investigated.

Firstly, the outer loadings of the model were determined and according to Hair, Anderson, Tatham, and William (1998), all items with factor loadings lower than 0.5 should be deleted from the model. Therefore, 3 items from the online customer satisfaction construct and 1 item from social interactions were eliminated.

After that, the indicators Composite Reliability, Cronbach's alpha, and Average Variance Extracted (AVE) were used to check the reliability and convergent validity of the model.

Composite Reliability was evaluated and achieved, since all values range from 0.889 and 0.869, higher than the upon lower limit of 0.6 (Ahmad, Zulkurnain, & Khairushalimi, 2016).

Cronbach's alpha ranged from 0.832 to 0.964, which is higher than the agreed upon lower limit of 0.7 (Hair et al., 1998) indicating high reliability of the construct. According to Kline (2015) the higher the value of alpha, the more reliable the scale is considered.

Average Variance Extracted was calculated to check the convergent validity of the constructs. Convergent validity is the extent to which two different variables are correlated (Cheah, Sarstedt, Ringle, Ramayah, & Ting, 2018). All values range from 0.667 and 0.855, meaning that convergent validity is accomplished since all values surpass the 0.5 threshold (Cheah et al., 2018).

Table 4 - Descriptive, reliability and convergent validity

Composite	Item	FL	α	Mean	SD	CR	AVE
Ease of use			0.946			0.957	0.788
	I appreciate when my interaction with the website is clear and understandable.	0.852		5.662	1.545		
	I appreciate when it is easy to interact with the website.	0.895		5.843	1.361		
	I appreciate when the website is easy to use.	0.911		5.884	1.347		
	I appreciate when it is easy to become skillful at using the website.	0.865		5.694	1.419		
	I appreciate when learning to operate the website is easy.	0.906		5.748	1.381		
	I appreciate when the website is flexible to interact with.	0.895		5.821	1.379		
Customization			0.856			0.902	0.697
	Internet shopping websites should feel like they are talking to me personally as a customer.	0.831		5.200	1.510		
	The requirement to log into an Internet shopping website makes me feel recognized as a customer	0.817		4.897	1.634		
	It is important to me that an Internet shopping website feels like my personal area when I use it.	0.876		4.996	1.631		
	I like it when I am able to customize the Internet shopping web pages to my own liking.	0.814		5.140	1.645		
Social interactions			0.857			0.903	0.699
	I appreciate when the website allows users to respond to comments made by others.	0.814		5.558	1.486		
	I appreciate when the website has a "Comment" button, allowing users to give feedback	0.806		5.418	1.522		
	I appreciate when the website has a "Like" button, allowing express what users like.	0.861		5.787	1.363		
	I appreciate when the website offers rewards to customers.	0.862		5.767	1.412		
Aesthetics			0.832			0.889	0.667
	The aesthetics of Internet shopping websites promotes a perception of quality.	0.847		5.386	1.443		
	The branding of Internet shopping websites should be consistent with my current perceptions of these companies.	0.841		5.338	1.452		
	Too much third-party advertising is not helpful when Internet shopping.	0.72		5.356	1.576		
	The look and feel of the website are important when Internet shopping.	0.852		5.569	1.440		
E-customer experience			0.964			0.968	0.716
	It was easy to orient on web site	0.855		5.586	1.404		
	I have received the necessary purchase confirmations	0.859		5.659	1.338		

	Operations were easy to perform	0.868		5.711	1.361	
	Returns policies were clear	0.824		5.509	1.490	
	The retailer provides a wide range of product choices	0.839		5.647	1.383	
	I felt safe during the online purchase process	0.847		5.599	1.445	
	I was provided with all the necessary information during the online experience	0.791		5.595	1.363	
	The online experience matched my individual needs and expectations	0.786		5.668	1.348	
	I felt comfortable during the online experience	0.866		5.700	1.374	
	The online retailer is trustworthy	0.865		5.580	1.403	
	I was in control of the process	0.875		5.677	1.339	
	I enjoyed the online shopping experience	0.875		5.733	1.368	
Customer satisfaction			0.895			0.934 0.826
	I am satisfied with my decision to purchase from this brand.	0.918		5.672	1.325	
	My choice to purchase from this brand was a wise one.	0.908		5.519	1.361	
	I think I did the right thing by buying from this brand.	0.9		5.522	1.382	
Online repurchase intention			0.915			0.947 0.855
	I anticipate to repurchase from this internet store in the near future.	0.921		5.438	1.494	
	It is likely that I will repurchase from this internet store in the near future.	0.934		5.487	1.434	
	I expect to repurchase from this internet store in the near future.	0.92		5.511	1.397	
Online trust			0.935			0.95 0.793
	This internet store is honest.	0.88		5.446	1.385	
	This internet store is very interested in meeting my needs and desires	0.879		5.323	1.444	
	This internet store keeps its promises and commitments	0.91		5.377	1.367	
	This internet store is reliable	0.899		5.504	1.411	
	This internet store is capable of fulfilling my needs and desires	0.885		5.476	1.382	
Online Customer loyalty			0.889			0.931 0.818
	I will keep on being a customer of X for the next 6 months	0.901		5.532	1.448	
	I will be loyal to X in the future	0.909		5.377	1.423	
	I will recommend X to others	0.904		5.567	1.400	

Subsequently, Discriminant Validity was analyzed. Discriminant Validity measures the degree to which a construct is empirically distinct from the others of the same structural model (Hair et al., 2019). Fornell and Larcker (1981) recommended that the AVE of each construct should be compared to the squared inter-construct correlation of that same construct and all other reflectively measured constructs in the structural model. Discriminant validity exists if the square root of a construct's AVE is higher than the intercorrelations between that construct and all other constructs. Therefore, discriminant validity was achieved in our structural model.

Table 5 - Average Variance Extracted (AVE) and Inter-Correlations (IC)

	1	2	3	4	5	6	7	8	9
1. Ease of use	0.888								
2. aesthetics	0.699	0.817							
3. online customer loyalty	0.653	0.505	0.905						
4. online customer satisfaction	0.726	0.591	0.84	0.909					
5. customization	0.485	0.612	0.542	0.472	0.835				
6. online repurchase intention	0.698	0.561	0.845	0.841	0.494	0.925			
7. e-customer experience	0.813	0.692	0.782	0.824	0.54	0.798	0.846		
8. online trust	0.668	0.571	0.836	0.859	0.562	0.81	0.829	0.891	
9. social interactions	0.832	0.688	0.645	0.668	0.536	0.646	0.735	0.645	0.836

However, recent studies suggest that to have a more accurate result of discriminant validity, heterotrait-monotrait (HTMT) ratio should be checked. HTMT is based on the multitrait-multimethod matrix, and it is commonly described as the average of the item correlations across constructs, relative to the geometric mean of the monotrait-heteromethod correlations, which are the correlations for the items measuring the same construct (Dijkstra & Henseler, 2015; Hair et al., 2019). According to Dijkstra and Henseler (2015), HTMT values should be lower than 0.9. For all constructs, HTMT is below 0.9 (the maximum value is 0.875), which means that discriminant validity is achieved.

4.2 Hypothesis testing

Towards testing the research hypothesis, a bootstrapping procedure in SmartPLS was performed, using 5000 subsamples. As presented in the table below, not only the full mediation model was tested, but also the partial mediation. Hence, new paths between the determinants and consequences were tested.

Regarding the determinants, ease of use (H1), customization (H2), social interactions (H3), and aesthetics (H4) are proposed to positively affect the e-customer experience, in the context of pre-loved luxury fashion. As shown in table 6, ease of use (SPC=0.575, $p<0.01$), customization (SPC=0.114, $p<0.05$) and aesthetics (SPC=0.163, $p<0.05$) are positively related to e-customer experience. Moreover, we can conclude that ease of use is the antecedent that most predicts e-customer experience. However, the effect of social interactions in e-customer experience was not significant, which means that H1c is not supported.

Considering the consequences, e-customer experience in pre-loved luxury fashion has a positive effect in online customer satisfaction (H5), online repurchase intention (H6), online trust (H7), and online customer loyalty (H8). All these effects were proven, which means that the higher the e-customer experience in pre-loved luxury fashion web platforms, the higher the online customer satisfaction (SPC=0.674, $p<0.01$), online repurchase intention (SPC=0.655, $p<0.01$), online trust (SPC=0.782, $p<0.01$), and online customer loyalty (SPC=0.655, $p<0.01$). Moreover, we can state that this effect is greater on online trust.

Concerning the moderating effects, it is proposed that sustainability (H3a), fashion consciousness (H3b), and economic motivations (H3c) strengthen the effect between e-customer experience and online customer loyalty. According to the results, sustainability has a significant effect on the relationship between e-customer experience and online customer loyalty (SPC=0.107, $p<0.05$). Even though lower, fashion consciousness also strengths the effect between e-customer experience and online customer loyalty (SPC=0.098, $p<0.05$). However, the effect of the economic motivations moderator was not significant.

Table 6 - Results of the hypotheses testing

	Full mediation		Partial mediation	
	SPC	t-value	SPC	t-value
H2: Ease of use -> e-customer experience	0.572	9.623***	0.575	9.717***
H2: Customization -> e-customer experience	0.118	2.806**	0.114	2.697**
H3: Social interactions -> e-customer experience	0.085	1.48ns	0.083	1.448ns
H4: Aesthetics -> e-customer experience	0.162	2.894**	0.163	2.859**
H5: E-customer experience -> Online customer satisfaction	0.824	36.613***	0.674	9.126***
H6: E-customer experience -> Online repurchase intention	0.798	33.437***	0.655	11.175***
H7: E-customer experience -> Online trust	0.829	39.606***	0.782	13.534***
H8: E-customer experience -> Online customer loyalty	0.704	13.176***	0.655	9.150***
H8a: Moderating Effect 1_sustainability -> Online customer loyalty	0.113	2.326**	0.107	2.368**
H8b: Moderating Effect 2_fashion -> Online customer loyalty	0.081	1.713*	0.098	2.353**
H8c: Moderating Effect 3_economic -> Online customer loyalty	-0.011	0.277ns	0.007	0.181ns
Ease of use -> Online customer loyalty			0.003	0.034ns
Ease of use -> Online customer satisfaction			0.125	1.788*
Ease of use -> Online repurchase intention			0.118	1.606ns
Ease of use -> Online trust			-0.066	1.040ns
Customization -> Online customer loyalty			0.164	2.875**
Customization -> Online customer satisfaction			0.026	0.716ns
Customization -> Online repurchase intention			0.096	2.518**
Customization -> Online trust			0.182	5.595***
Social interactions -> Online customer loyalty			0.171	2.466**
Social interactions -> Online customer satisfaction			0.074	1.301ns
Social interactions -> Online repurchase intention			0.072	1.053ns
Social interactions -> Online trust			0.097	1.885*
Aesthetics -> Online customer loyalty			-0.226	4.273***
Aesthetics -> Online customer satisfaction			-0.030	0.602ns
Aesthetics -> Online repurchase intention			-0.082	1.592ns
Aesthetics -> Online trust			-0.101	2.246**

Notes: E-CE=e-customer experience; SPC=Standardized Path Coefficient;

* $p < 0.1$; ** $p < 0.05$; ***$p < 0.01$, ns=not significant

Subsequently, the direct paths between the determinants and consequences of e-customer experience in pre-loved luxury fashion were analyzed.

Starting with ease of use, apart from online customer satisfaction, ease of use did not significantly affect online customer loyalty, online repurchase intention, and online trust. This means that for these constructs, e-customer experience fully mediates the relationship between ease of use and online customer loyalty, online repurchase intention, and online trust. However, ease of use directly influences online customer satisfaction, which means that e-customer experience partially mediates this relationship.

Regarding customization, apart from online customer satisfaction, all the constructs are partial mediated by e-customer experience. Hence, customization directly influences online customer loyalty, online repurchase intention, and online trust. Nevertheless, customization did not significantly influence online customer satisfaction, which means that e-customer experience fully mediates this relationship.

Even though social interactions do not significantly influence e-customer experience, when analyzing the direct paths, social interactions positively affect online customer loyalty and online trust. However, the relationship between social interactions and online repurchase intention and online customer satisfaction is not significant.

Concerning aesthetics, table 6 shows that aesthetics directly affects online customer loyalty and online trust, so e-customer experience partially mediates these relationships. Moreover, the relationship between aesthetics and online customer satisfaction and aesthetics and online repurchase intention is not significant, meaning that e-customer experience fully mediates these relationships.

To better analyze the mediation effects, the indirect effects were checked, with a bias-corrected 90% bootstrap confidence interval (CI), as is presented in table 7.

Beginning on the mediation effect of ease of use on e-customer experience and online customer loyalty, the CI for the indirect effect does not include zero (90% CI [0.297, 0.472]). This result reveals that e-customer experience mediates the relationship between ease of use and e-customer experience, and because the direct effect is not significant (t=0.034) it is an indirect-only mediation. The same happens for the effect of ease of use on e-customer experience and online repurchase intention. The CI for the indirect effect does not include zero (90% CI [0.309, 0.462]) and the direct effect is not significant (t=1.606), which means

it is an indirect-only mediation. Similarly, for the mediation effect of ease of use on e-customer experience and online trust, the CI for the indirect effect does not include zero (90% CI [0.375, 0.541]) and the direct effect is not significant (t=1.040), so it is an indirect-only mediation. Nonetheless, for the effect of ease of use on e-customer experience and online customer loyalty, the CI for the indirect effect does not include zero (90% CI [0.315, 0.478]), but the direct effect is also significant (t=1.788). This is the case of complementary mediation.

Following, concerning the effect of customization on e-customer experience and online customer loyalty, the CI for the indirect effect does not include zero (90% CI [0.030, 0.125]), and the direct effect is significant (t=2.875), which means that it is a complementary mediation. The same happens for online repurchase intention and online trust. In detail, for the effect of customization on e-customer experience and online repurchase intention, the CI for the indirect effect does not include zero (90% CI [0.029, 0.123]), and the direct effect is significant (t=2.518), so it is a complementary mediation. Similarly, for the effect of customization on e-customer experience and online trust, the CI for the indirect effect does not include zero (90% CI [0.034, 0.146]), and the direct effect is significant (t=5.595), so it is a complementary mediation. However, taking into consideration the mediation effect of customization on e-customer experience and online customer satisfaction, the CI for the indirect effect does not include zero (90% CI [0.030, 0.130]), but the direct effect is not significant, so in this case, it is an indirect-only mediation.

Concerning the effect of social interactions on e-customer experience and online customer loyalty, we already determined that social interactions do not significantly affect e-customer experience, and that there is no indirect effect. However, the direct effect between social interactions and online customer loyalty is significant (t= 2.466), so in this case it is a direct-only mediation. The same happens between social interactions and online trust, the indirect effect is not significant but the direct is (t=1.885), hence it is a direct-only mediation. Differently, for the effect of social interaction on e-customer experience and online customer satisfaction, and for the effect of social interaction on e-customer experience and online repurchase intention, the direct and indirect mediation are not significant, and we had previously concluded that social interactions do not have a significant influence on online customer satisfaction neither on the online repurchase intention. Therefore, there is a no-effect non-mediation.

Next, regarding the effect of aesthetics on e-customer experience and online customer loyalty, the CI for the indirect effect does not include zero (90% CI [0.049, 0.175]), and the direct effect is significant (t=4.273), which means that it is a complementary mediation. Similarly, the mediation effect of aesthetics on e-customer experience and online trust, the CI for the indirect effect does not include zero (90% CI [0.057, 0.202]), and the direct effect is significant (t=2.246), so it is a complementary mediation. However, considering the mediation effect of aesthetics on e-customer experience and online customer satisfaction, the CI for the indirect effect does not include zero (90% CI [0.049, 0.178]), but the direct effect is not significant, so in this case it is an indirect-only mediation. Lastly, for the mediation effect of aesthetics on e-customer experience and online repurchase intention, the CI for the indirect effect does not include zero (90% CI [0.048, 0.174]), but the direct effect is not significant, so it is an indirect-only mediation.

Table 7 - Mediating effects of the partial mediation model

			Bias corrected bootstrap 90% confidence interval	
Path	Indirect effect	t-value	Lower	Upper
Ease of use -> E-CE -> Online customer loyalty	0.377	7.121***	0.297	0.472
Ease of use -> E-CE -> Online customer satisfaction	0.388	7.893***	0.315	0.478
Ease of use -> E-CE -> Online repurchase intention	0.377	8.370***	0.309	0.462
Ease of use -> E-CE -> Online trust	0.450	8.846***	0.375	0.541
Customization -> E-CE -> Online customer loyalty	0.075	2.586**	0.030	0.125
Customization -> E-CE -> Online customer satisfaction	0.077	2.529*	0.030	0.130
Customization -> E-CE -> Online repurchase intention	0.075	2.604**	0.029	0.123
Customization -> E-CE -> Online trust	0.089	2.594**	0.034	0.146
Social interactions- > E-CE -> Online customer loyalty	0.054	1.420ns	-0.005	0.121
Social interactions -> E-CE -> Online customer satisfaction	0.056	1.377ns	-0.004	0.130
Social interactions -> E-CE -> Online repurchase intention	0.054	1.413ns	-0.004	0.123
Social interactions -> E-CE -> Online trust	0.065	1.414ns	-0.006	0.145
Aesthetics -> E-CE -> Online customer loyalty	0.107	2.763**	0.049	0.175
Aesthetics -> E-CE -> Online customer satisfaction	0.110	2.819**	0.049	0.178
Aesthetics -> E-CE -> Online repurchase intention	0.107	2.829**	0.048	0.174
Aesthetics -> E-CE -> Online trust	0.128	2.885**	0.057	0.202

Notes: E-CE=e-customer experience; * $p < 0.1$; ** $p < 0.05$; ***$p < 0.01$, ns=not significant

4.3 Multi-group Analysis

In addition to the analysis of the structural model, a Multi-Group Analysis (MGA) was conducted in order to evaluate the theoretical framework among different groups. The sample was divided between 3 different groups divided by ages. The first group is constituted by respondents until 24 years old, the second group is constituted by respondents between 25 years old and 44 years old, and the third groups consists of individuals who are 45 years old or more.

A bootstrapping test was conducted for the three groups with 5000 subsamples. The results are presented in the table below.

Table 8 - PLS- Multi Group Analysis

	1 - Path Estimates (0-24 years-old)	**2-** Path Estimates (25-44 years old)	**3 -** Path Estimates (45 years old or more)	Estimate difference (1-2)	Estimate difference (1-3)	Estimate difference (2-3)
Ease of use -> E-CE	0.575***	0.523***	0.634***	0.052ns	-0.059ns	-0.111ns
Customization -> E-CE	0.129**	0.158**	0.054ns	-0.029ns	0.076ns	0.104ns
Social interactions -> E-CE	0.029ns	0.124ns	0.073ns	-0.095ns	-0.044ns	0.051ns
Aesthetics -> E-CE	0.227**	0.152**	0.129ns	0.075ns	0.097ns	0.023ns
E-CE -> Online customer satisfaction	0.862***	0.815***	0.798***	0.048ns	0.064ns	0.017ns
E-CE -> Online repurchase intention	0.848***	0.791***	0.739***	0.057ns	0.109*	0.052ns
E-CE -> Online trust	0.876***	0.796***	0.840***	0.080*	0.036ns	-0.044ns
E-CE -> Online customer loyalty	0.741***	0.730***	0.617***	0.011ns	0.123ns	0.113ns
Moderating Effect 1_sustainability -> Online customer loyalty	0.221*	0.097ns	0.107ns	0.124ns	-0.113ns	-0.011ns
Moderating Effect 2_fashion -> Online customer loyalty	0.062ns	0.027ns	0.194*	-0.035ns	0.132ns	0.167ns
Moderating Effect 3_economic -> Online customer loyalty	0.015ns	0.034ns	0.026ns	0.049ns	0.040ns	-0.009ns

Notes: E-CE=e-customer experience; * p < 0.1; ** p < 0.05; ***p < 0.01, ns=not significant

Firstly, we can affirm that a measurement invariance of the model was achieved. Nevertheless, the results presented show that there are differences among the path coefficients of the three groups of ages. In fact, customization significantly affects e-customer experience for the ones aging between 0 and 24 years old and 25 and 44 years old, but the relationship is not significant for the ones older than 44 years old. The same happens for aesthetics that significantly affects e-customer experience for the ones who are between 0 and 24 years old and 25 and 44 years old, while it is not significant for the ones that are older than 44 years old. According to Loureiro and Roschk (2014), in an online platform, younger people are more attracted to the architecture, decoration, colors, links, and all graphic design of the online environment than older ones.

Regarding the moderating effects, economic motivations are not significant for the three groups. However, while for the youngest group sustainability significantly strengths the relationship between e-customer experience and online customer loyalty, for the others this effect is not significant. One possible explanation is the fact that younger generations are more future-oriented, and their actions are related to their educational behaviors which increase their environmental knowledge. Therefore, they may have more concerns with sustainability. Furthermore, since younger individuals may suffer from negative consequences of unsustainable activities, they are expected to show more anxiety for the effects of their environmental behaviors and preserve their own future. Lastly, younger generations are more open to new experiences and numerous sustainability actions require openness to change, which is not so common in older ages (Wiernik, Ones, & Dilchert, 2013).

Moreover, for the ones with 45 years old or more, fashion consciousness significantly affects the relationship between e-customer experience and online customer loyalty, while for the younger groups this effect is not significant.

Lastly, there are significant differences between the relationship of e-customer experience and online repurchase intention and e-customer experience and online trust. Accordingly, the effect of e-customer experience on these constructs is greater for the youngest group. These results are similar to the ones of Floh and Treiblmaier (2006), who found that the effect of website quality on trust and repurchase intention was higher for the younger ones.

Since most of the constructs revealed no significant differences among the groups, the constructs and consequently the proposed model are valid.

4.4 Comparison of means for ease of use

Additionally, since ease of use is the antecedent that most affects e-customer experience, an ANOVA test in SPSS was performed to analyze the difference of means for ease of use, depending on the respondents' answer to the question: "Do you feel that your experience when buying secondhand luxury fashion products online compared to in-store is: (a)the same, (b)worse, (c)better. Hence, this test aims to compare the means of ease of use and find if there are significant differences for the respondents that consider that buying secondhand luxury fashion online is better, worst or the same than in-store.

Therefore, we divided the respondents into 2 groups. The first group is named Group A (n= 286) and is constituted of the respondents that consider that the experience of buying secondhand luxury fashion products online is the same (n=225) or worse (n=61) than in-store. The second group is named Group B (n=178) and is constituted of the respondents that consider that the experience of buying secondhand luxury fashion products online is better than in the store.

Online vs In store	Mean	N	Standard Deviation
A	5.633	286	1.317
B	6.003	178	1.093
Total	5.775	464	1.247

Oneway ANOVA

	Sum of Squares	df	Mean Square	F	Significance
Between Groups	14.968	1	14.968	9.802	0.002
Within Groups	705.516	462	1.527		
Total	720.484	463			

The results of the ANOVA test reveal that Group B, constituted of the respondents that consider the experience of buying secondhand luxury fashion products online better than in-store, presents a higher mean for ease of use (M=6.003) than group A (M=5.633). Moreover, according to the Oneway ANOVA the difference between the two groups is significant (p-value<0.05).

The question whether, in luxury fashion, customer experience online could be as good as customer experience in-store is an on-going discussion (Malka, 2018). According to

Okonkwo (2009), the additional value that luxury brands provide is difficult to express in an online environment. However, most of our respondents considered that secondhand luxury fashion can provide an equal or even better experience online than in store. This can be explained by the fact that we are analyzing secondhand luxury products, and also by the emergence of Covid-19 pandemic, which challenged companies to improve their online experience (Ali, 2020).

Moreover, our results show that the ease of use of the web platform, which according to our study is the determinant that mostly affects e-customer experience in pre-loved luxury fashion platforms, is more valuable for the ones that believe the customer experience is better online compared to in-store, than for the ones who think customer experience is the same or better in-store.

5 Discussion

The pre-loved luxury fashion market is growing much faster than the primary luxury fashion market. Moreover, digital platforms are the ones that are fueling this growth (Aycock, 2021). Despite the growing interest in this market, existing literature has not focused on the determinants and consequences of e-customer experience in pre-loved luxury fashion consumption. In fact, while some researchers have already studied the drivers of secondhand purchasing, none has analyzed the customer experience in those online platforms.

This paper presents a model that aggregates dimensions presented by different studies within the literature. Hence, we present a complete model of customer experience in the pre-loved luxury fashion market, specifically in the online dimension.

The analysis of the results obtained allows us to guarantee that almost all the hypotheses were supported.

Accordingly, the findings of the study confirm that the ease of use of a web platform positively affects e-customer experience, in the context of secondhand luxury fashion. Actually, ease of use is the construct that most affects e-customer experience in the context of pre-loved luxury fashion. This means that consumers appreciate a website that is clear and understandable, and that is easy to interact with and to become skillful at. Responses suggest that consumers in fact appreciate when learning to operate the website is easy ($M>5$). Thus, our findings support the study of Gonçalves et al. (2020) and go against the results achieved by Barbu et al. (2021).

Regarding H2, our research supports the research of Yeung et al. (2010) that suggests that customization affects positively e-customer experience. This means that consumers appreciate when they can adapt the Internet shopping web platforms to their personal preferences (Rose et al., 2012).

Our findings suggest that social interactions do not significantly affect e-customer experience in the context of pre-loved luxury fashion. However, this does not mean that consumers do not appreciate social interactions on a website. Accordingly, they appreciate social interactions and it is possible to verify that through the responses of the questionnaire. Indeed, the average level of agreement of the five items referring to the construct of social interactions is 5.6, on a scale from 1 to 7. Therefore, although respondents appreciate social

interactions on a website, it does not have a significant impact on e-customer experience. A possible explanation is the fact that the items of social interactions are mainly concerned with likes, comments, and reviews. However, since most secondhand luxury fashion products on web platforms are unique, which means that there is online one unit of each product, these functionalities may lose some of their interest. Therefore, social interactions may significantly affect e-customer experience as Srivastava and Kaul (2014) proved, but probably not in the context of pre-loved luxury fashion.

Regarding the influence of aesthetics on customer experience, our study suggests that the aesthetics of a website is the second antecedent that most positively affects e-customer experience. In fact, respondents consider that the aesthetics of web platforms promote a perception of quality (M>5). Hence, costumer experience is better when the look and feel of the web platform transmit quality and when there is not too much advertising (Rose et al., 2012).

Subsequently, this study found that e-customer experience in the context of pre-loved luxury fashion had a significant relationship to all the proposed consequences.

In detail, the findings of this study confirm the role of e-customer experience in online customer satisfaction, as proposed by Sheng and Liu (2010). Therefore, the better the online customer experience in pre-loved luxury fashion platforms, the greater the online customer satisfaction.

Our H2 hypothesis was also confirmed, meaning that e-customer experience influences positively customer's online repurchase intention, in the context of pre-loved luxury fashion platforms. Hence, we proved the point of view of C. Kim et al. (2012), who stated that repurchase intention is based on a previous experience on the same platform. Hence, the better the previous e-customer experience, the higher the repurchase intention.

The findings of this study also confirmed that e-customer experience affected positively online trust, which supports the study of Micu et al. (2019). In fact, in our study, online trust is the construct that is most affected by e-customer experience, in the context of pre-loved luxury fashion. Therefore, when e-customer experience is better, consumers feel that the web platform is honest, reliable, and interested in meeting their needs and desires (Nguyen & Khoa, 2019).

Regarding customer loyalty, our study supports Klaus and Maklan (2013) who proved that e-customer experience influenced positively online customer loyalty. Therefore, unlike de study of Caruana (2002), who concluded that customer experience could online significantly affect online customer loyalty via online customer satisfaction, our study found a direct relationship between these two constructs.

Considering the moderators, sustainability is proved to be the one that mostly strengths the link between e-customer experience and online customer loyalty, in the context of pre-loved luxury fashion. An explanation to this finding is the fact that consumers are now more aware of the impact of the clothing industry on the ecological environment. Therefore, they are now more willing to change their consumption behaviors and opt to purchase secondhand fashion items (Zaman et al., 2019). According to the respondents, buying secondhand makes them feel that they are helping to fight against waste ($M<5$).

Concerning the moderator effect of fashion consciousness, the results indicate a low but significant effect of fashion consciousness on the link between e-customer experience and online customer loyalty, in the context of pre-loved luxury fashion. This supports the fact that personal motivations affect the link between customer experience and online customer loyalty (Stein & Ramaseshan, 2019).

Lastly, economic motivations do not significantly moderate the relationship between e-customer experience and online customer loyalty, in the context of pre-loved luxury fashion. This unexpected finding may be explained by the changing trends in secondhand consumption. Actually, with the growing concerns with sustainability, consumers may see secondhand shopping as a better alternative for the environment. Hence, purchasing secondhand may be no longer associated with saving money, but instead with environmentally conscious behaviors. Moreover, the abundance of low price fast fashion platforms may be another explanation for this result (Seo & Kim, 2019).

6 Conclusions

E-customer experience is a crucial topic for companies, especially after the appearance of the Covid-19 pandemic. Indeed, e-customer experience is increasingly recognized as an opportunity for firms to establish long-lasting relationships with customers (Waqas et al., 2021). However, e-customer experience is complex and research about this topic is considered to still be in the early stages (Kuppelwieser & Klaus, 2021). Moreover, the pre-loved luxury fashion market is growing and even though this topic is in vogue, the literature is still very scarce.

Therefore, to fill the gap in the literature, the main purpose of this study is to evaluate the determinants of the e-customer experience in the context of pre-loved luxury fashion online platforms, as well as the behavioral consequences of that experience on customers. This investigation aggregates various dimensions presented by different studies within the literature about online customer experience, but in a different context: the pre-loved luxury fashion market.

After reviewing the concepts related to the proposed research, a quantitative methodology was used, through the elaboration of a questionnaire. The results were analyzed in detail according to the SEM methodology and using the statistical software SmartPLS 3.

This study brought contributions both on a theoretical and a practical dimension, which are explained in further detail below.

6.1 Theoretical implications

From a theoretical point of view, this dissertation contributes for the scarce existing literature about the growing market of secondhand luxury fashion and extends the understanding of the determinants of e-customer experience and the impact of that experience in this online market. Considering that scholars had mentioned the lack of research in regard to the secondhand luxury fashion market (Gopalakrishnan & Degirmencioglu, 2020), it is to our belief that our findings are of the upmost importance to the literature. Moreover, this research is especially relevant since the Covid-19 Pandemic enhanced the importance of providing memorable customer experience in online platforms, and consumers are

increasingly concerned with sustainability and secondhand luxury fashion websites match their preferences.

The relative importance of each determinant on e-customer experience is provided in this study, where the ease of use of the web platform reveals to be the most important factor to influence e-customer experience, followed by customization and the aesthetics of the web platform. In essence, the greatest the level of ease of use, aesthetics, and customization of the website, the greatest the e-customer experience in pre-loved luxury fashion we platforms. We make a strong conceptual contribution to the literature since the relationship between these concepts was still contradictory. For instance, the impact of the ease of use of a web platform in e-customer experience was not proven in the study of Barbu et al. (2021). Also, social interactions are proven to not significantly affect the e-customer experience, which can be explained by the context of secondhand luxury fashion platforms.

This study also finds that e-customer experience has a significant effect on online satisfaction, loyalty, repurchase intention and trust. (Klaus & Maklan, 2013) (Mustikasari et al., 2021) (Micu et al., 2019). Therefore, the greater the e-customer experience the higher the level of online satisfaction, online customer loyalty, online repurchase intention and online trust. Additionally, the findings show that the variable that is most impacted by the e-customer experience in pre-loved luxury fashion is the online trust, which is a crucial when deciding between different channels (Hidayat et al., 2016).

Moreover, this study presents for the first time an analysis of the effect of sustainability, fashion consciousness and economic motivations in the relationship between e-customer experience and customer loyalty, and the findings show that sustainability is the construct that most moderates this relationship, which is in line with the increasing environmental concern.

The results of the investigation confirm most of the proposed hypotheses, which allow us to fill the existing gap in the literature about customer experience in online secondhand luxury fashion platforms.

In broad terms, this study advances the understanding of e-customer experience in pre-loved luxury fashion web platforms by (1) providing a quantitative analysis of the determinants of e-customer experience, (2) quantitively identifying consequences of e-customer experience, (3) evidencing differences among different ages.

6.2 Managerial implications

Many companies are struggling to leverage the online landscape to meet their customers' expectations (Bilgihan, Kandampully, & Zhang, 2016). Therefore, understanding the importance of each determinant on e-customer experience is crucial in order to improve the functionalities of the website and then increase the general consumer online satisfaction, repurchase intention, loyalty, and trust.

From a managerial viewpoint, this study provides knowledge to the companies that sell secondhand luxury fashion products in an online environment. Hence, the present study proposes that pre-loved luxury fashion retailers should carefully deliberate the characteristics of their websites, in order to create excellent and memorable customer experiences.

Indeed, the most important feature that should be considered is the ease of use of the website. Consumers consider that a clear, understandable, and easy to interact web platform improves e-customer experience. Accordingly, a platform that does not require effort is preferred by consumers. Moreover, managers should also focus on the customization and aesthetics of the online platform. The possibility to customize one's own space, mold and shape the sale, and the look of the website are proved to be important functionalities when internet shopping (Rose et al., 2012). Managers must incorporate these findings into their managerial practices. Therefore, using these discoveries, they can not only adapt the features of their web platforms but also develop marketing practices, which highlight the functionalities that mostly influence a great online customer experience. Hence, pre-loved luxury fashion companies should develop pull marketing campaigns that enhance the ease of use, customization, and aesthetics of the web platform.

Furthermore, this research investigates the impact and effect of those dimensions on e-customer experience and consequently on online customer loyalty, online customer satisfaction, online repurchase intention, and online trust. This analysis allows us to conclude that the greatest effect of a great e-customer experience is on online trust and online repurchase intention. Therefore, using these findings, companies can define a strategy to improve the e-customer experience and consequently obtain higher levels of trust, repurchase intention, satisfaction, and loyalty.

Moreover, the research provides insight into the link between e-customer experience and online customer loyalty in the context of pre-loved luxury fashion. According to our findings,

this link is mainly strengthened by consumers' sustainability concerns. Therefore, pre-love luxury fashion web platforms could have a section on their website related to sustainability. This section could explain the benefits of secondhand consumption for the environment as well as provide useful content about sustainability. Moreover, marketing strategies should highlight the benefits of purchasing secondhand products for the environment to attract more potential consumers. For instance, marketers could contact influencers that support sustainable behaviors and sustainable platforms, such us secondhand, to promote their platform.

Lastly, our study also tests the differences among different ages, allowing companies to develop and adjust their strategies depending on their aging target.

To conclude, this study provides valuable information not online for the already established pre-loved luxury fashion online platforms, but also for new businesses and physical stores that feel the need to go online. Our research is also useful for society in general since it provides information about secondhand luxury fashion platforms, which are an alternative to mass consumption and a way of being a step closer to sustainability.

6.3 Limitations and Future Research

This study is the first attempts to advance analysis of e-customer experience in the growing context of secondhand luxury fashion web platforms. Hence, it has limitations that can be improved in future research.

The first limitation is related to the selection of determinants of e-customer experience. Further research could include more variables, such as multichannel interaction, usefulness, perceived enjoyment, hedonic features, and utilitarian features.

Moreover, our research is on e-customer experience in secondhand luxury fashion web platforms, without specifying any platform. However, future research could focus on specific websites, such as Vestiaire Collective, Vinted, RealReal, and compare the e-customer experience among them.

Another limitation is that customer experience is not only the purchasing moment but also the pre and post-purchase. Therefore, further research could study the entire customer journey, in the context of pre-loved luxury fashion web platforms.

Also, since we are facing a pandemic outbreak, Covid-19, it would be interesting to study if the results of the pandemic strengthen the significance of the determinants and consequences of e-customer experience. It would also be challenging to study in detail if the willingness to buy online has increased during Covid-19 pandemic.

Lastly, our questionnaire was only answered in a specific and short period of time. Since the secondhand luxury market is a growing market and online is gaining power as well, it would be interesting to spread the questionnaire in different periods of time and see if there would be significant differences in the determinants and outcomes.

7 Appendix

7.1 Questionnaire

The present study is part of an investigation about luxury fashion products. This investigation is very important for the conclusion of the master's in management, in the Faculty of Economics of the University of Porto.

It is important to mention that this survey will take approximately 7 minutes to answer, and it is anonymous and confidential.

Please provide the most sincere and genuine answers.

By answering this survey on a voluntary basis, you agree that your anonymous responses can be used and shared in the academic fields, in compliance with the data protection regulation.

Thank you so much for your time and cooperation!

Rita Araújo

Do you usually purchase products online?

-Yes

-No

Have you ever purchased luxury fashion items?

-Yes

-No

Have you ever purchased online second-hand luxury fashion products?

-Yes

-No.

If not: Why?

-I do not know any online platform that sells secondhand luxury fashion products.

-I am ashamed of using secondhand luxury fashion products.

- I am afraid that the products are not authentic.

-I am not sure about the cleanness of the products.

-I do not like to use products that were already used by another person.

-I am afraid that the quality of the products is not what I expect.

-I do not like to buy these kind of products online because I am afraid they do not fit me.

-I do not like to buy expensive products online.

-other:

With what frequency do you purchase online second-hand luxury fashion items?

-Never

- Less than once a year

-At least once a year

-More than once a year

If you want to buy secondhand luxury fashion products, do you prefer to buy online or in store?

	In store	Online
Pre Covid-19 pandemic		
During Covid-19 pandemic		

Please select what kind of luxury fashion products do you usually buy secondhand

-bags

-clothes

-shoes

-accessories

-other: _____

Identify the degree of agreement or disagreement in relation with each affirmation (1=strongly disagree and 7=strongly agree).

-I can afford more things because I pay less for second-hand luxury fashion.

-I can have more things for the same amount of money if I buy them second-hand.

-I feel that I have lots of luxury fashion items for a good price by buying them second-hand.

-I don't want to pay more for a product just because it's new.

-By buying second-hand, I feel I'm paying a fair price for things.

-I buy luxury fashion second-hand because I think I can make a profit by selling them forward.

Identify the degree of agreement or disagreement in relation with each affirmation (1=strongly disagree and 7=strongly agree)

-By buying second-hand luxury fashion, I feel like I am escaping the fashion consumption system.

-Buying second-hand luxury fashion is for me a revenge on the fast-fashion system.

-Buying second-hand luxury fashion enables me to distance myself from the consumer society.

-I enjoy buying luxury second-hand fashion because I don't like items being thrown away that can still be of use.

-By buying second-hand, I feel I'm helping to fight against waste.

Identify the degree of agreement or disagreement in relation with each affirmation (1=strongly disagree and 7=strongly agree).

-I am attracted more to old and vintage things than new ones.

-Above all I buy luxury fashion second-hand products because they are old and have a history and a story.

-I like buying luxury fashion second-hand objects because they feel nostalgic to me.

-I like buying luxury fashion second-hand objects because I find them more authentic.

-I buy luxury fashion second-hand clothes mainly because I find them fashionable.

When thinking about using a website platform to buy a luxury fashion secondhand product, could you please identify the degree of agreement or disagreement in relation with each affirmation (1=strongly disagree and 7=strongly agree)

- I appreciate when my interaction with the website is clear and understandable.

- I appreciate when it is easy to interact with the website.

- I appreciate when the website is easy to use.

- I appreciate when it is easy to become skillful at using the website.

- I appreciate when learning to operate the website is easy.

- I appreciate when the website is flexible to interact with.

- I appreciate when the website allows users to respond to comments made by others.

- I appreciate when the website has "Comment" button, allowing users to give feedback.

- I appreciate when the website has "Like" button, allowing express what users like.

- I appreciate when the website offers rewards to customers.

- I appreciate when the website allows users to provide product reviews.

Identify the degree of agreement or disagreement in relation with each affirmation (1=strongly disagree and 7=strongly agree).

-Internet shopping websites should feel like they are talking to me personally as a customer.

-The requirement to log into an Internet shopping website makes me feel recognized as a customer.

-It is important to me that an Internet shopping website feels like my personal area when I use it.

-I like it when I am able to customize the Internet shopping web pages to my own liking.

Identify the degree of agreement or disagreement in relation with each affirmation (1=strongly disagree and 7=strongly agree)

-The aesthetics of Internet shopping websites promotes a perception of quality.

-The branding of Internet shopping websites should be consistent with my current

perceptions of these companies.

-Too much third party advertising is not helpful when Internet shopping.

-The look and feel of the website is important when Internet shopping.

Please identify the last online platform from which you purchased a secondhand luxury fashion product.

_____

When thinking about your experience using the platform you mentioned, could you please identify the degree of agreement or disagreement in relation with each affirmation (1=strongly disagree and 7=strongly agree).

-It was easy to orient on the website

-I have received necessary purchase confirmations.

-Operations were easy to perform.

-Returns policies were clear.

-The retailer provides a wide range of product choices.

-I felt safe during the online purchase process.

-I was provided with all the necessary information during the online experience.

-The online experience matched my individual needs and expectations.

-I felt comfortable during the online experience.

-The online retailer is trustworthy.

-I was in control of the process.

-I enjoyed the online shopping experience.

When thinking about your experience using the platform you mentioned, could you please identify the degree of agreement or disagreement in relation with each affirmation (1=strongly disagree and 7=strongly agree).

-I anticipate to repurchase from this internet store in the near future.

-It is likely that I will repurchase from this internet store in the near future.

-I expect to repurchase from this internet store in the near future.

-I will keep on being a customer of this internet store for the next 6 months.

-I will be loyal to this internet store in the future.

-I will recommend this store to others.

-I am satisfied with my decision to purchase from this internet store.

-If I had to purchase again, I would feel differently about buying from this internet store.

-My choice to purchase from this internet store was a wise one.

-I feel badly regarding my decision to buy from this internet store.

-I think I did the right thing by buying from this internet store.

-I am unhappy that I purchased from this internet store.

-This internet store is honest.

-This internet store is very interested in meeting my needs and desires.

-This internet store keeps its promises and commitments.

-This internet store is reliable.

-This internet store is capable of fulfilling my needs and desires.

Do you feel that your experience when buying secondhand luxury fashion products online compared to in store is:

-the same

-worse

-better

Do you feel that your experience when buying online secondhand luxury fashion products compared to brand-new products is:

-the same

-worse

-better

Gender:

-Male

-Female

-Prefer not to say

Age range:

-Less than 18

-18-24

-25-34

-35-44

-45-54

-55-64

-more than 64

Nationality:

_____

What is your main occupation?

-Student

-Worker/student

-Employee

-Self-employed

-Unemployed

-Other

What is the highest level of education you have completed?

-Middle school

-High school

-Bachelor's degree

-Master's degree

-Phd

What is your net monthly income?

-600€ to 1199€

-1200€ to 1799€

-1800€ to 2399€

-2400€ to 2999€

-More than 3000€

-Prefer not to say

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