# How footwear companies can use online CX to WOW customers

**Abstract**

**Purpose:** E-commerce has become an essential and highly competitive channel for e-retailers, who have felt the need to invest in the experience delivered to customers. Therefore, it becomes necessary to unveil the online customer experience so that brands can improve their offerings. In this study, we proposed a model that explores customer experience on websites, namely, what concerns the use of the latest technological developments such as artificial intelligence, augmented reality, and virtual reality.

**Design/methodology/approach:** The study offers a model to explore and compare the online consumer experience in e-commerce websites, considering eight dimensions that cover recent technological advances. A multiple case study that evaluated companies in the footwear industry was used to assess the model's applicability. The case study methodology considered two distinct segments, the high-price and low-price segments.

**Findings:** The data collected by the websites' examination enabled us to confirm part of the suggested propositions. However, propositions concerning new technologies were not proved. Opportunities for improvement were identified, especially for high-price segment companies, since the results showed that these companies provide a less pleasant consumer experience than those of the opposing segment.

**Originality:** This study extends the scope of the online consumer experience by introducing more contemporary dimensions. Additionally, the model allows an evaluation and comparison of the knowledge delivered by several online retailers, using the Portuguese footwear industry as a reference.

# 1. **Introduction**

The retail environment is experiencing increased popularity over the last few decades, and the number of services offered on the Internet is constantly growing (Kureshi & Thomas, 2019). E-commerce has emerged as one of the most outstanding services offered on the Internet. It leads to increased opportunities for businesses and customers by providing lower prices, faster delivery, higher online convenience (Duarte *et al.*, 2018), and more accessible product comparison (Bilgihan *et al*., 2016). Hence, e-commerce remains highly competitive, making it more difficult for companies to differentiate from competitors (Nisar & Prabhakar, 2017). E-retailers felt the need to invest in delivering customers a more unique and pleasant experience to deal with this increasingly competitive online environment.

Despite the growing importance of this issue, the online customer experience (OCX) literature is relatively new. It needs to be better studied, with many opportunities to develop further its knowledge (Kumar & Anjaly, 2017). First, the literature needs to be more comprehensive in understanding how to adjust the customer experience (CX) dimensions to improve and explore the experience on websites (Martin *et al*., 2015). Second, much of the existing literature in OCX focuses on the consumer perspective and needs to systematically investigate it from a managerial one (Bilgihan *et al*., 2016; Rose *et al*., 2011, 2012). Third, most studies focus only on new technologies' influence on customer behaviour (Klaus, 2015). Fourth, none of the previous OCX models has considered the latest technological developments in e-commerce, such as artificial intelligence, augmented reality, and virtual reality (Moorhouse *et al*., 2018). Also, as far as we can tell from the literature review, a study has yet to be developed offering a brand-based price-segmented comparison for online customer experience. Consumers often perceive the price as an indicator of the quality of the experience offered by the brand, as well as the quality of the product, and they believe that price and quality are highly correlated (Lichtenstein & Burton, 1989). A brand that sells higher-priced

products offers higher-quality experiences than lower-priced brands (Lichtenstein et al., 1993). Consequently, this may pose a difficulty for managers to analyse their e-commerce websites and determine the key factors that lead to a successful business experience and help them be different from competitors.

We proposed a model to explore and benchmark online customer experience to fill this research gap. We reviewed the OCX literature to identify existing antecedent dimensions and attributes to unveil and advance new dimensions consistent with technological developments. We also proposed a framework to compare websites within the sector of the Portuguese Footwear Industry through a price-segmented analysis, and we assessed the goodness of this framework when applied to reality.

The structure of the paper is as follows. We first examine the growth of CX, considering a discussion of the concept of OCX, its measurement antecedents, and emerging dimensions. The second section explains the proposed conceptual framework and provides supporting literature for propositions. The following section describes the methodology adopted and the empirical study. Finally, we provide an analysis of the findings and a discussion of the conclusions, implications, and future research directions.

## 2. Literature Review

### 2.1 Customer Experience (CX) and Online Customer Experience (OCX)

Recently, brands have turned their focus to the customer experience, as there are more and more touchpoints across multiple channels and media through which customers can interact with companies, resulting in more complex customer journeys (Lemon & Verhoef, 2016). Furthermore, customer interactions through social media and other platforms create significant challenges and opportunities for companies (Leeflang et al., 2013). Customer experiences are becoming more social.

We live in an increasingly experience-centric era (Martin *et al*., 2015). Consumers have access to more purchasing choices and channels and less tolerance for inconsistent or mediocre services (Singh, 2019). To survive in this competitive era, instead of only focusing on reducing prices, companies also need to focus on ensuring unforgettable and unique experiences for their customers (Bilgihan *et al*., 2016). The literature on customer experience has received significant interest from academics and managers (Bilgihan *et al*., 2016). Despite its different theoretical contributions and the proposed models, it is possible to identify common characteristics. There is a broad definition of CX, considered as a multidimensional construct that involves cognitive, emotional, behavioural, sensorial, and social components, which results from the set of interactions between a company and its customers during the customer's entire purchase journey (Lemon & Verhoef, 2016; Le & Nguyen-Le, 2021). This definition is highly consistent with the conceptualisations offered by several researchers. For example, Meyer and Schwager (2007, p. 118) define customer experience as "the internal and subjective response that customers have to any direct or indirect contact with a company". Klaus and Maklan (2013, p. 228) defined customer experience as "the customer's cognitive and affective assessment of all direct and indirect encounters with the firm relating to their purchasing behaviour".

The increasing importance of CX to business performance, coupled with the emergence of the online retail environment, forces marketers to understand how to ensure a unique CX in the online environment (Rose *et al*., 2012). Towers and Towers (2021) also stated that there is a need to understand the customer journey and improve the customer experience throughout all the touchpoints. Even Kuppelwieser and Klaus (2020) indicated that customers evaluate and perceive the experience as a whole and do not perceive the different stages separately. Some authors acknowledged a comparison between the offline and online customer experience concepts and argued that one of their main distinctions relies on the degree of personal contact

(Le & Nguyen-Le, 2021). In virtual channels, consumers cannot engage physically with other customers and the service staff (Le & Nguyen-Le, 2021). Furthermore, the online environment brings more opportunities for retailers compared to the offline context as it enables online retailers to provide richer information to consumers and allows consumers to purchase where and when it is more suitable for them (Rose *et al.*, 2011; Chen & Chang, 2003).

The importance of developing models to explore OCX is increasing as the most favourable experiences generate a more significant competitive advantage (Klaus, 2013). However, given its relatively emerging state, there needs to be a general agreement on robust measurement scales to evaluate OCX, mainly when it concerns models that enable managers to measure their online experience performance (Rose *et al.*, 2011). Researchers usually focus on service quality literature and models to develop approaches to assess CX and OCX by defending that it focuses on the context in which experiences arise (Lemon & Verhoef, 2016).

To date, researchers have focused primarily on exploratory ways of conceptualising and measuring customer experience for better understanding and greater applicability (Grewal, Levy, and Kumar, 2009; Pucinelli et al., 2009; Verhoef et al., 2009; Lemke et al., 2011; Anderson, 2014). According to Kumar and Anjaly (2017), the biggest problem in creating an operational measure of customer experience may be the complexity of the variables. The emotions experienced differ for different individuals, so determining the ideal experience level is another challenge. Therefore, all existing measures of customer experience need to adequately capture the experiential aspect (Bagdare & Jain, 2013). Moreover, as a result, there still needs to be an agreement on robust approaches to assess all aspects of the customer experience. This field of customer experience is still in its infancy, with many of these scales still being evaluated and revised for validity. In line with these thoughts, several studies have used the SERVQUAL scale to measure the customer experience as it is a long-tested approach

that may offer a good starting point, despite needing to be developed to capture the specificities of the online environment.

## 2.2 Online Service Quality (e-SQ)

Service marketing developed in the 1980s when special features of services such as intangibility, personal interactions, and inseparability were recognised by companies as significantly different from marketing products (Zeithaml, Bitner and Gremler 2006). Service quality is one of the main concepts in service marketing that has attracted the research community's attention. The assessment of service quality led to the SERVQUAL model's development by Parasuraman, Zeithaml and Berry (1988) in an attempt to measure the quality of service offered. Some advances were then put forward in subsequent research that included electronic service quality (Parasuraman, Zeithaml and Malhotra, 2005; Wolfinbarger & Gilly, 2003). In the area of service marketing also emerged the incorporation of atmosphere and environment as influences on customer experience, service blueprinting as an attempt to map the customer journey (Bitner, Ostrom and Morgan 2008), and recognition of the importance of the so-called moments of truth. Thus, the advance in the service quality literature has brought significant inputs to the customer experience, such as the context in which experiences arise, journey mapping, and measurement of the elements that are part of the customer experience.

Online Service Quality (e-SQ) is seen as "the extent to which a website facilitates efficient and effective shopping, purchasing and delivery of products and services" (Zeithaml *et al*., 2002, p.363). Many researchers have understood that companies with superior online service quality tend to be more profitable as they can create greater satisfaction, purchase intentions, loyalty and a positive attitude among customers (Zeithaml *et al*., 2002; Lee and Lin., 2005; Padma & Wagenseil, 2018).

The SERVQUAL model introduced by Parasuraman *et al*. (1988) was the most used model for measuring service quality in traditional businesses by highlighting five service quality dimensions: tangibles, reliability, responsiveness, assurance, and empathy. Therefore, many authors have validated these standard model dimensions for the online environment (Wolfinbarger & Gilly, 2003; Yang *et al*., 2004; Kuo, Chen and Cheng, 2018; Zhang *et al*., 2019). The specific characteristics of the physical environment focus on personal contact between the consumer and the front-line employee. However, this is not what happens in the online environment, where contact occurs between the consumer and an electronic interface. This specificity makes it difficult for authors to adopt one specific framework, based on the traditional Parasuranam *et al.* (1988)'s dimensions, that covers all online environment specifications. For instance, Szymanski and Hise (2000) suggested four factors important for consumers when assessing e-satisfaction on websites: convenience, merchandising, site design, and financial security. Kaynama and Black (2000) developed an electronic service quality model comprised of seven dimensions: content, access, navigation, design, response, background, and personalisation.

Further, Zeithaml *et al*. (2002) have focused on ease of navigation, flexibility, efficiency, site aesthetics, and security. Park and Stoel (2002) explored the availability of products, customer service information, and website quality of leading Internet apparel retailers. Wolfinbarger and Gilly (2003) and Yang and colleagues (2004) also based on the traditional model to focus on consumer perceptions of e-SQ and found the importance of the fulfilment rating as crucial in predicting customer satisfaction.

Although different conceptualisations of the same dimension can be assessed in the literature, Kaynama and Black (2000) noticed that different authors have identified six online dimensions emerging from the traditional quality service model. First and foremost, the dimension "tangibles," which refers to "physical facilities and staff appearance in the

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traditional model" (Lee & Lin, 2005, p.163), proved to be irrelevant in the online context since consumers are not interacting physically with sales representatives, but with an electronic interface (Liljander *et al*., 2002). In this sense, the "website navigation" developed for the online environment tends to be comparable to the contact established in the physical environment when searching for a product (Chen & Chang, 2003).

The "Reliability" dimension, seen as "the ability to perform the promised service reliably and accurately" (Lee & Lin, 2005, p.163), consider both the accuracy of product presentation on the website, as well as ordering and timely delivery. According to Kaynama and Black (2000), these dimensions have become, in the online environment, part of the 'merchandise' dimension, which focuses on product representation. Wolfinbarger and Gilly (2003) argue that they are now part of the 'reliability' dimension that focuses on the ordering process. 'merchandise' and 'reliability' were two new dimensions emerging in the online environment from the traditional 'reliability' dimension of physical environments.

The 'Responsiveness' dimension considered in the traditional model as "the willingness to help customers and provide a quick service" (Lee & Lin, 2005, p.163) remains an essential dimension of the online environment. Although privacy and security were not considered in the traditional model, authors admitted a consistency between these dimensions and the traditional "assurance" dimension (Szymanski & Hise, 2000; Wolfinbarger & Gilly, 2003; Yang *et al*., 2004). While 'Assurance' involves trust in staff, 'privacy and security involve the customers' trust regarding the companies' interface to ensure the privacy of personal and financial information.

The 'Empathy' dimension, seen in the physical environment as "the attentive and individualised attention given to customers by the service provider" (Lee & Lin, 2005, p.163), was also adapted to the context of online sales. It is seen in the online environment as the possibility of personalising the service (Liljander *et al*., 2002), making changes to the interface,

and receiving information, considering the consumer's individual preferences (Kaynama & Black, 2000). Hence, it is now being conceptualised as customisation.

Table 1 tries to illustrate the dimensions addressed by different authors that advanced e-SQ frameworks. Although it only depicts some of those authors, it highlights a tendency for different authors to address those six dimensions.

[Insert Table 1 near here]

## 2. 3 New Technological Advances in E-commerce

We have recently witnessed a considerable amount of opportunities for retailers to deliver a superior experience based on new technological features enabled by such technologies as big data, artificial intelligence (AI), augmented reality (AR), and virtual reality (VR) (Moorhouse *et al*., 2018). These new advances give e-retailers access to more features to deliver interactive and personalised customer experiences (Grewal *et al*., 2021), automatically increasing the value delivered to consumers.

On the one hand, customers' data grows in popularity as companies have access to increased opportunities to gather consumers' information in the online environment. The power of the available data enables the design of more appealing offers that meet customer expectations, acquire profitable customers, better target the audience, design customer-focused programs, and develop tools that encourage consumers to purchase (Grewal *et al*., 2017). On the other hand, by efficiently using those data, AI is also developing solutions to provide a seamless and easy experience as it enables machines to sense, comprehend and act with human levels of intelligence. This innovation has contributed to the possibility of making product recommendations, sending personalised discounts, using social media ads based on customers' past activity or sending automated emails (Hall & Towers, 2017; Bonetti *et al*., 2018;

Moorhouse *et al*., 2018; Grewal *et al*., 2021; Guha *et al*., 2021). It also enables the use of chatbots and virtual shopping assistants (De Cicco *et al*., 2021), which help perform tasks such as answering customers' questions or helping them with their purchases without the need for human presence (Khrais, 2020).

The development of technologies such as AR, which refers to interactive technologies that relate the physical to the virtual environment (Moorhouse *et al*., 2018), and VR, which does not occur within the physical environment and is only perceptible in the virtual one (Grewal *et al*., 2020), are also being increasingly used in all sectors, particularly in fashion retailing. Both innovations enhance the purchase experience as it improves the products' online presentation by allowing consumers to virtually 'experience' products without physically touching them (Guha *et al*., 2021) more engagingly and entertainingly (Bonetti *et al*., 2018). This includes virtual shopping assistants, virtual stores, 3D features, and virtual try-on, among others (Guha *et al*., 2021).

Thus, companies must adopt the latest technology to remain competitive and cope with consumers' constant new expectations to improve the online service experience.


## 3. Proposed Conceptual Model

Six dimensions, such as Website Navigation, Merchandise, Reliability, Customer Service, Privacy and Security, and Customisation, were identified in previous e-SQ studies as likely to yield more positive results relating to online customer experience. Additionally, given that the latest technological advances in e-commerce have yet to sufficiently explore either in previous e-SQ (Janda *et al*., 2002) or OCX models (Grewal *et al*., 2017), this study will advance the standard dimensions proposed previously in the e-SQ. Specifically, we aim to introduce more recent technological dimensions, such as Connectedness and E-interactivity. These dimensions

are relevant to build a more enjoyable and unique customer experience and generating higher repeat purchase intention and preference towards the Internet retailer (Chiu *et al*., 2014).

*Website Navigation*

According to Zeithaml *et al*. (2000, p.16), website navigation relates to the "appearance of the site and functions that help customers find what they need without difficulty, possesses a good search engine, and allows the customer to navigate easily and quickly back and forth through the pages". Website Navigation is a crucial dimension for consumers and, consequently, for e-retailers as a well-designed navigation system provides consumers with reduced search costs and time spent searching for information, strongly affecting their perception of their shopping experience (Szymanski & Hise, 2000). Hence, a website needs to uncover a set of attributes to explore the quality of the navigation, which involves the availability of a consistent navigation toolbar, accessible from anywhere on the website, and the ability to find a page previously viewed, among others (Lee & Lin, 2005; Yang *et al*., 2004). Therefore, the lack of these features may result in greater dissatisfaction (Lee & Lin, 2005), reduced customer loyalty (Wolfinbarger & Gilly, 2003), and non-intention to purchase (Dholakia & Zhao, 2010). Hence, we propose that*:*

*P1. Website Navigation plays an important role for retailers in driving a better online customer experience in online environments.*

*Merchandise*

Consumers' inability to physically evaluate the product and touch it is a relevant barrier for some customers to buy online as it creates more significant uncertainty about product quality. The availability of higher-quality information compensates for the lack of touch of online shopping (Rodrigues *et al*., 2017) and decreases the perceived risk associated with online

selling (Jang & Burns, 2004). As such, the "merchandise" dimension in websites is directly related to the quality of product-related information, especially for some product categories such as clothing or footwear, where consumers' perception of quality can only be fully confirmed after purchase (Rodrigues *et al*., 2017). Therefore, we propose that:

*P2. Merchandising plays an important role for retailers in driving a better online customer experience in online environments.*

### Reliability

The 'Reliability' dimension is considered in the digital environment as one of the most important determinants of overall service quality as it is related to "the accuracy of service promises which involves the correct technical functioning of the site" (Zeithaml *et al*., 2000, p.16). The variety of orders, payment and delivery methods, and availability to return and exchange products are the most important concerns of consumers (Wolfinbarger & Gilly, 2003). However, other features are considered necessary by authors as a shopping cart, warranty service, order status tracking, and FAQs section (Chen & Chang, 2003). According to e-SQ authors, these features are positively related to successful e-shopping, as they represent strong predictors of customer satisfaction (Dholakia & Zhao, 2010), loyalty (Wolfinbarger & Gilly, 2003), and customer purchase intentions (Lee & Lin, 2005). We propose that:

*P3. Reliability plays an important role for retailers in driving a better online customer experience in online environments.*

### Customer Service

Customer service refers to the prompt response from service representatives, speed in solving problems and getting additional information about the product (Yang *et al*., 2004). It is highly related to the retailer's success, considering that it strongly affects customers' judgments of

overall service quality and satisfaction (Wolfinbarger & Gilly, 2003) and considering that it has an impact on e-loyalty, word-of-mouth promotion, and customer purchase intentions (Lee & Lin, 2005). Therefore, we propose that:

*P4. Customer service plays an important role for retailers in driving a better online customer experience in online environments.*

### Privacy and Security

'Privacy and Security in the online environment involve the degree to which the customer believes that the website presents a "low risk associated with transactions, the safeguarding of personal information, and the security in completing online transactions." (Yang *et al*., 2004, p.1165). As privacy and security influence consumer perceptions of the website and the expected degree of trust, companies must introduce features that assure consumers that the website is secure concerning personal information processing and transaction activities (Park & Kim, 2003). Therefore, we propose that:

*P5. We propose that privacy and security play an important role for e-retailers in driving a better online customer experience in online environments.*

### Customisation

New technological advances such as AI have allowed retailers to offer even more personalised experiences based on each consumer-specific preference. AI is then reshaping many businesses, particularly in the retailing scenario, as it gives retailers the ability to create automated emails, make product recommendations, personalise discounts, newsletter personalisation, and create social media ads based on past activity, among others (Grewal *et al*., 2021; Guha *et al*., 2021; Khrais, 2020). Therefore, we propose that:

*P6. Customisation is important for e-retailers to provide positive customer experiences in online environments.*

### Connectedness

Bilgihan *et al*. (2016, p. 110) argue that online social interactions represent a way for consumers to feel part of a community, where features enable consumer interactions, such as shoppers' comments, product reviews, and social media linkages "form the customer experience of sociability". Thus, to enhance the consumer experience, e-retailers need to recognise functionalities that enable consumer interaction by creating their WOM channels or being present on social media platforms that facilitate these types of interactions (Bilgihan *et al*., 2016). Examples of such features can be reading and writing reviews by other users, showing other customer reviews and rankings, and giving products and services a scale, among others (Bilgihan *et al*., 2016). Therefore, we propose that:

*P7. Connectedness is important for e-retailers to provide positive customer experiences in online environments.*

### E - Interactivity

Interactivity in e-commerce encompasses the experience and the enjoyment that derives from the online consumer's interactions (Dennis *et al*., 2009), which were particularly possible due to AR and VR developments (Bonetti *et al*., 2018). AR has created superior, more interactive, innovative consumer experiences through virtual mirrors, virtual stores, virtual try-on, and mannequins. VR enables the inclusion of 3D features, such as 360-degree experiences and 3D product presentation, which allow the customer to 'try on clothes before buying them and inevitably enhances the customer's perception of a superior online experience by reducing the risk perceptions of online purchases (Bonetti *et al*., 2018). In addition to AR and VR, also AI-

enabled the use of chatbots and virtual shopping assistants. Merrilees and Fry (2002) argued that online interactivity is considered the most important determinant of consumer attitudes toward a particular e-retailer as it could influence both trust and perspectives of the e-retailer. So, we propose that:

P8. *The interactivity of a website is seen as a vital element for e-retailers to enhance a positive customer experience in online environments.*

[Insert Figure 1 near here]

**4. Evaluation Instrument**

The evaluation instrument consists of 58 attributes, identified as evaluators of each dimension in the literature to assess the OCX level in websites. We followed the indicated dimensions in the literature by different e-SQ authors. Thus, we relied on the retail literature for the proposed model, mainly on the authors listed in table 2. Only for the constructs 'website navigation', 'reliability', 'privacy and security, and 'empathy' we used the building blocks of the SERVQUAL model, in line with other authors such as Chen and Chang (2003), Wolfinbarger and Gilly (2003), Yang et al. (2004), and Liljander et al. (2002). Two new dimensions, 'connectedness' and 'e-interactivity', were further explored in this model, as these seem to bring in the adherence to the online environment not included before.

Table 2 presents a discussion of the conceptual model with summarised supporting literature, showing the confirmation of existing knowledge in the e-SQ literature and where new dimensions have been added based on the literature of both OCX and new technologies present in e-commerce websites.

[Insert Table 2 near here]

## 5. Methodology

An empirical study based on multiple case study research was conducted using a qualitative approach. A multiple case study is the most suitable method as, according to Meredith (1998), it helps explore emergent phenomena that require further exploration and where the variables are unknown and not well understood. Moreover, this method creates the opportunity to conduct an in-depth study in its real-life context, providing a detailed specification and analysis of the cases (Yin, 2009). A qualitative research methodology is considered suitable when the researcher investigates a new field of study or intends to ascertain and theorise prominent issues, such as these here (Corbin & Strauss, 2008). According to Creswell (2007), the most common types are interviewing and observation for an extensive understanding of the issues through their textual interpretation. Gray (2009) claims that observation is a type of qualitative research method that includes research work in the field and that observational data can be integrated as auxiliary or confirmatory research.

For this study, we selected a small number of brands to be studied, accepting that it will allow us to develop an in-depth understanding of each brand's experience performance and more easily draw insights by comparing the companies' results. The companies differ in several terms, such as size, years of experience, strategies pursued, and marketing channels used. They were selected based on their price segment, specifically high-price and low-price segments (Silva *et al*., 2020). This choice was based on customers' perceptions that their income level can affect the experience. Higher-income consumers emphasise technologically differentiated, engaging, and memorable shopping experiences (Siddiqui *et al*., 2003). Low-income consumers focus on satisfaction as an information cue to base their purchase decision (Dennis *et al*., 2009). Distinct price segments have specific target markets with different perceptions of a good customer experience.

The fashion brands chosen are representative of low-price and high-price brand segments. The main criteria for selecting the brands were well-known successful brands, the author's preferences, and data availability. Additionally, to conduct a more detailed analysis of each company, we chose three brands for each segment, considering i) they are 100% made in Portugal, ii) they focus on footwear sales, and iii) sell through e-commerce websites. For the low-price segment, with average prices ranging from 35€ to 150€, brands Wayz, Lemon Jelly, and Sanjo were selected. For the high-price segment, the brands chosen were Balluta, Josefinas, and Luís Onofre. Their prices range from 300€ to 900€ (see Table 3 for more detailed information about each company).

## 6. Data collection

Following Achanga et al. (2006), data were obtained from direct observation of the companies. Companies' websites and other online channels, such as social networks, blogs, and apps, were used in this case. All data were collected through a real experience on the website, in which the researcher compiled notes regarding the experience. This interaction was repeated four times with a three-month time gap to properly evaluate all aspects of the experience. Additionally, secondary internal data were analysed, including annual company reports, news articles, and magazine articles.

We proposed the following process to develop an objective analysis of each website. As seen in table 2, each dimension comprises a set of attributes. Each attribute will be evaluated with a score of 0 or 1. We will use 0 if the attribute is not present on the website and one of the existence or application of the attribute is verified. Through this method, it will be possible to calculate, for each dimension, an average of its performance, which will allow us to compare the online stores under study. Hence, the average of all the attributes will give us a perception of the overall score of each dimension. The final dimension score will range from 0 (no

attributes are present in this dimension) to 1 (all attributes are present in this dimension). In this line of thought, we can conclude that the dimensions with a value close to 1 present a better performance, in which most of the attributes of the respective dimension are present. Conversely, dimensions with a value close to 0 are those in which most of their attributes are not present on the website, and, therefore, there is a lower performance of this dimension.

[Insert Table 3 near here]

## 7. Results

Table 4 presents the results from the data collected through an authentic experience on the website of the different brands, Luis Onofre, Josefinas, Balluta, Wayz, Lemon Jelly, and Sanjo.

[Insert Table 4 near here]

*Low-price segment*

The analysis reveals that the low-price segment brands show good website performance, as it fulfils most of the attributes that belong to each dimension, totalling, on average, a value very close to 1 (0.82). This means that lower-end segment brands try to offer a good online experience to their customers and potential customers. The Privacy and Security dimension fulfils all attributes (value 1) and, therefore, with the best performance, followed by the Merchandise dimension (value 0.96), connectedness (value 0, 94), reliability (value 0.93), customer service (with a value of 0.92), website navigation (value 0.89), and customisation (value 0.85). The interactivity dimension is the lowest-performing dimension (value 0.05). Only one of the brands in this segment has a live chat or chatbot, and the rest do not offer any interactivity on their website.

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*High-price segment*

Concerning the performance of the websites of the high-price segment brands, we found lower values that fall short of expectations, considering that we are dealing with high-price and high-quality brands in which the consumer expects a high-quality experience. The total average of the dimensions is 0.59, above what is considered a positive experience but still far from the value of 1. The website navigation dimension is the one with the best performance (value 0.89), followed by the merchandise and reliability dimensions (value 0.86), privacy and security (value 0.75) and the customisation, connectedness, and interactivity dimensions with values below 0.5, meaning that high-price segment brands very little explore these dimensions. Also, in this segment, the interactivity dimension is the dimension with the lowest performance (value 0.16) despite having a higher value than the brands in the low-price segment. Only the Luís Onofre brand is committed to this dimension by presenting interactive experiences with virtual assistants in virtual stores.

In general terms, and contrary to what was expected, the low-price segment brands (Wayz, Lemon Jelly and Sanjo) present a website with much better performance (0.82) than the high-price segment brands (0.59) (Luis Onofre, Josefinas and Balluta). Brands in the low-price segment have better website performance and better explore dimensions such as Merchandise, Reliability, Customer Service, Privacy and Security, Customisation, and Connectedness compared to brands in the opposite segment. Customer Service, Customisation and Connectedness are the dimensions where there is a more significant gap between the two segments, with the high-price segment brands being very close to 0 and the low-price segment brands being very close to 1. Only in the dimension of interactivity do both segments share a

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weaker or even null performance, that is, most brands do not present any interactivity attributes on their website.

## 8. Discussion

The results suggested that in what concerns propositions P1, P2, P3, and P5, which refer to website navigation, merchandise, reliability, and privacy and security, respectively, the six brands tend to, regardless of price segment, deliver a superior online experience, with values ranging from 0.75 to 1. According to the results, these dimensions are essential to a better customer experience in online environments. They are determinants of quality and overall service satisfaction (Wolfinbarger & Gilly, 2003; Yang *et al*., 2004), customer loyalty, attitudes towards the website (Wolfinbarger & Gilly, 2003), and customer purchase intentions (Lee & Lin, 2005).

Concerning the companies' perspective, these results go against the results of Park and Stoel (2002), who suggested that online merchants provided extensive customer service information. A possible reason for this may be that consumers no longer give so much importance to website attributes related to customer service and after-sales support. Instead, they tend only to consider those attributes that enable them to contact customer service easily. Therefore, P4 was only verified for low-price segment companies.

Concerning the remaining propositions, P6, P7, and P8, related to new technological dimensions, there were significant discrepancies between both segments. In both customisation and connectedness dimensions, the low-segment brands demonstrated a significantly higher score than the high-segment brands. For the low-price segment companies, customisation and connectedness are essential for e-retailers to provide positive customer experiences in online environments. However, the same was not verified for high-price segment companies since they presented very low results. Luís Onofre's website presented 50% of the attributes under

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analysis. Regardless of the segment, the companies did not consider the e-Interactivity of the website as a vital element for improving the customer experience; all of them presented lower results in this dimension. Such results indicate that, except for Luís Onofre, most of the attributes under analysis were not verified, and P8 was not confirmed.

Based on the results, our initial assumption that companies with different pricing strategies would have different website strategies regarding the experience delivered still needs to be confirmed. Also, we found that premium segment retailers have not recognised how a superior online technology presence would enable their target to achieve a differentiated, engaging, and memorable experience in line with their brand positioning (Siddiqui *et al*., 2003). A possible reason for this may be that low-price companies, unlike high-price companies, are faced with much more competitive environments and feel the need to differentiate themselves from the competition by providing a superior and more appealing experience (Silva *et al.*, 2021) using innovative attributes and dimensions such as those that generate affective responses from consumers.

To sum up, improvements can and should be made in all the dimensions identified with averages below 1 to provide a better customer experience by companies in both segments. On the one hand, low-price companies need to make slight improvements according to the results presented in the different dimensions, especially the "e-interactive" dimension, since it is a strong predictor of attitude towards online shopping (Childers *et al*., 2001). The high-price companies more than focus on improving privacy and policy dimension and may also invest more in emerging technological dimensions. On the other hand, high-price companies should focus on almost every dimension as they provide a less pleasant experience to their consumers. This includes unique dimensions such as customer service, privacy and security, customisation, connectedness, and e-interactivity.

## 9. Conclusions, implications, and limitations

E-commerce has become an essential and highly competitive channel for retailers, which has led to customer experience being seen as one of the determinants for successful online businesses (Jaiswal & Singh, 2020). However, much of the existing literature on OCX focuses on consumer perceptions. It does not systematically explore items to study this important concept from a managerial perspective, especially considering new dimensions consistent with technological developments.

This study attempted to advance the OCX literature and develop a practical model to assess the online experience delivered to consumers through e-commerce websites. The results showed that these footwear retailers invest in website design merchandise, reliability, privacy, and security. Companies in the low-price segment invested more in Customisation and Connectivity dimensions than companies from the high-price segment. Customer service, customisation and connectedness are the dimensions where there is a more significant gap between the two segments since the low-segment brands perform very close to the maximum value. In contrast, the opposite-segment brands present a weaker performance. Therefore, these dimensions are less explored. Furthermore, it was possible to verify that only some companies, regardless of segment, focused on investing in the attributes related to electronic interactivity.

This study extends the existing knowledge on previous service quality models by updating not only the attributes previously recognised in the online service quality literature (Parasuraman *et al*., 1988; Zeithaml *et al*., 2002) but also those in the OCX literature that have not been taken into account recent technological developments in e-commerce (Rose *et al*., 2012; Saha *et al*., 2021)). Second, this study highlights the critical role that OCX plays in the specific field of e-commerce, which has not yet received attention in the literature. Third, it extends predictive studies by assessing the goodness of an OCX framework in the context of

e-commerce websites. Finally, this study presents a set of factors that companies should be aware of to deliver an offer of excellence to their customers. Furthermore, we suggest that higher-segment companies invest more in new technological dimensions, such as customisation, connectedness, and interactivity.

The findings and contributions of our study present some limitations. First, further studies are needed to develop a more detailed conceptualisation and exploration of the dimensions presented here. Second, this model is intentionally focused on user experience on websites. However, there is still an opportunity to extend it to a more detailed and in-depth analysis of the user experience regarding other online channels to consider a broader and more holistic consumer experience of the entire consumer journey. It is also essential to understand the customer's perception regarding the online experience that brands offer, and for that, it is helpful to develop a questionnaire. Finally, expanding the testing of the current model to different contexts is likely to yield further valuable insights into delivering superior e-commerce experiences to customers.

**References**

Achanga, P., Shehab, E., Roy, R., & Nelder, G. (2006). Critical success factors for lean implementation within SMEs. *Journal of Manufacturing Technology Management*, Vol. 17 No. 4, pp. 460-471.

Agrebi, M., and Boncori, A. L. (2017). "What makes a website relational? The experts' viewpoint", *European Management Journal*, Vol. 35 No. 5, pp. 617–631.

Bagdare, S. and Jain, R. (2013). "Measuring retail customer experience", *International Journal of Retail and Distribution Management*, Vol. 41 No. 10, pp. 790-804.

Bilgihan, A., Kandampully, J., and Zhang, T. (2016). "Towards a unified customer experience in online shopping environments: Antecedents and outcomes", *International Journal of*

*Quality and Service Sciences*, Vol. *8 No.* 1, pp. 102–119.

Bitner, M., Ostrom, Amy, M. and Morgan, F. N. (2008). "Service Blueprinting: A Practical Technique for Service Innovation," *California Management Review*, Vol. 50 No 3, pp. 66–94.

Bonetti F., Warnaby G., and Quinn L. (2018). "Augmented Reality and Virtual Reality in Physical and Online Retailing: A Review, Synthesis, and Research Agenda", In Jung T., tom Dieck M. (eds) Augmented Reality and Virtual Reality. Progress in IS. Springer, Cham.

Chen, S. J., and Chang, T. Z. (2003). "A descriptive model of online shopping process: Some empirical results", *International Journal of Service Industry Management*, Vol. 14 No. 5, pp. 556–569.

Childers, T. L., Carr, C. L., Peck, J., and Carson, S. (2001). "Hedonic and utilitarian motivations for online retail shopping behavior", *Journal of Retailing*, Vol. 77 No. 4, pp. 511–535.

Chiu, C. M., Wang, E. T. G., Fang, Y. H., and Huang, H. Y. (2014). "Understanding customers' repeat purchase intentions in B2C e-commerce: The roles of utilitarian value, hedonic value and perceived risk", *Information Systems Journal*, Vol. 24 No. 1, pp. 85–114.

Corbin, J. and Strauss, A. (2008). Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory, 3rd Ed., Sage Publications: Thousand Oaks, Los Angeles, CA.

Creswell, J. W. (2007). Qualitative Inquiry and Research Design: Choosing Among Five Approaches: International Student Edition, Sage Publications: Thousand Oaks, CA.

De Cicco, R., Silva, S. C., and Alparone, F. R. (2020). "Millennials' attitude toward chatbots: an experimental study in a social relationship perspective". *International Journal of Retail & Distribution Management*, Vol 48, No. 11, pp. 1213-1233.

Dennis, C., Merrilees, B., Jayawardhena, C., and Wright, L. T. (2009). "E-consumer behavior", *European Journal of Marketing*, Vol. 43 No. 9, pp. 1121–1139.

Dholakia, R. R., and Zhao, M. (2010). "Effects of online store attributes on customer satisfaction and repurchase intentions", *International Journal of Retail & Distribution Management*, Vol. 38 No. 7, pp. 482–496.

Duarte, P., Silva, S. C. and Ferreira, M. B. (2018). "How convenient is it? Delivering online shopping convenience to enhance customer satisfaction and encourage e-WOM", *Journal of Retailing and Consumer Services*, Vol. 44, pp. 161-169.

Grewal, D., Levy, M. and Kumar, V. (2009). "Customer Experience Management in Retailing: An Organising Framework," *Journal of Retailing*, Vol. 85 March, pp. 1–14.

Grewal, D., Gauri, D. K., Roggeveen, A. L., and Sethuraman, R. (2021). "Strategizing Retailing in the New Technology Era", *Journal of Retailing*, Vol. 97 No.1, pp. 6–12.

Grewal, Dhruv, Noble, S. M., Roggeveen, A. L., Nordfalt, J., and Noble, S. M. (2020). "The future of in-store technology", *Journal of the Academy of Marketing Science*, Vol. 48, pp. 96–113.

Grewal, Dhruv, Roggeveen, A. L., and Nordfält, J. (2017), "The Future of Retailing", *Journal of Retailing*, Vol. 93 No. 1, pp. 1–6.

Guha, A., Grewal, D., Kopalle, P. K., Haenlein, M., Schneider, M. J., Jung, H., Moustafa, R., Hegde, D. R., and Hawkins, G. (2021). "How artificial intelligence will affect the future of retailing", *Journal of Retailing*, Vol. 97 No. 1, pp. 28-41

Hall, A. and Towers, N. (2017). "Understanding how Millennial shoppers decide what to buy: digitally connected unseen journeys", *International Journal of Retail & Distribution Management*, Vol. 45 No. 5

Hise, R., and Szymanski, D. (2000). "E-Satisfaction: An Initial Examination", *Journal of Retailing*, Vol. 76 No. 3, pp. 309.

Jaiswal, S., and Singh, A. (2020). "Influence of the Determinants of Online Customer Experience on Online Customer Satisfaction", *Paradigm*, Vol. 24 No. 1, pp. 41–55.

Janda, S., Trocchia, P. J., and Gwinner, K. P. (2002). "Consumer perceptions of Internet retail service quality", *International Journal of Service Industry Management*, Vol. 13 No. 5, pp. 412–431.

Jang, E., and Burns, L. D. (2004). "Components of apparel retailing Web sites", *Journal of Fashion Marketing and Management*, Vol. 8 No. 4, pp. 375–388.

Kaynama, S. A., and Black, C. I. (2000). "A proposal to assess the service quality of online travel agencies: An exploratory study", *Journal of Professional Services Marketing*, Vol. 21 No. 1, pp. 63–88.

Khrais, L. T. (2020). "Role of artificial intelligence in shaping consumer demand in e-commerce", *Future Internet*, Vol. 12 No. 12, pp. 1–14.

Klaus, P. (2015). *Measuring customer experience: How to develop and execute the most profitable customer experience strategies*, Springer.

Klaus, P. and Maklan, S. (2013). "Towards a Better Measure of Customer Experience", *International Journal of Market Research*. Vol. 55 No 2, pp. 227-246.

Klaus, P. (2013). "The case of Amazon.com: Towards a conceptual framework of online customer service experience (OCSE) using the emerging consensus technique (ECT)", *Journal of Services Marketing*, Vol. 27 No. 6, pp. 443–457.

Kuo, T., Chen, C. T., and Cheng, W. J. (2018). "Service quality evaluation: Moderating influences of first-time and revisiting customers", *Total Quality Management & Business Excellence*, Vol 29 No 3–4, pp. 429–440

Kumar, A. and Anjaly, B. (2017). "How to measure post-purchase customer experience in online retailing? A scale development study", *International Journal of Retail & Distribution Management*, Vol. 45 No. 12, pp. 1277–1297.

Kuppelwieser, V. G. and Klaus, P. (2020). " Measuring customer experience quality: The EXQ scale revisited", *Journal of Business Research*, https://doi.org/10.1016/j.jbusres.2020.01.042

Kureshi, S. and Thomas, S. (2019). "Online grocery retailing – exploring local grocers beliefs", *International Journal of Retail & Distribution Management*, Vol. 47 No. 2, pp. 157–185.

Lee, G.-G., and Lin, H.-F. (2005), "Customer perceptions of e-service quality in online shopping", *International Journal of Retail & Distribution Management*, Vol. 33 No.2, pp. 161–176.

Le, A.N.H. and Nguyen-Le, X.-D. (2021). "A moderated mediating mechanism of omnichannel customer experiences", *International Journal of Retail & Distribution Management*, Vol. 49 No. 5, pp. 595–615.

Leeflang, P., Penny, S. H., Spring, N., Doorn, J., Lemon, T., and Verhoef, P. C., (2016). "Understanding Customer Experience Throughout the Customer Journey", *Journal of Marketing*, Vol 80 No. 6, pp. 69–96.

Lemke, F., Clark, M. and Wilson, H. (2011). "Customer Experience Quality: An Exploration in Business and Consumer Contexts Using Repertory Grid Technique", *Journal of the Academy of Marketing Science*, Vol. 39 No 6, pp. 846–69.

Lemon, K. N., and Verhoef, P. C. (2016). "Understanding customer experience throughout the customer journey", *Journal of Marketing*, Vol. 80 No. 6, pp. 69–96.

Lichtenstein, D. and Burton, S. (1989). "The Relationship between Perceived and Objective Price-Quality", *Journal of Marketing Research*, Vol 26 No 4, pp. 429–443.

Lichtenstein, D., Ridgway, N. M. and Netemeyer, R. G. (1993), "Price Perceptions and Consumer Shopping Behavior: A Field Study", *Journal of Marketing Research*, Vol 30 No 2, pp. 234–245.

Liljander, V., van Riel, A. C. R., and Pura, M. (2002). "Customer satisfaction with e-services:

The case of an online recruitment portal", *Electronic Services*, pp. 407–432.

Martin, J., Mortimer, G., and Andrews, L. (2015). "Re-examining online customer experience to include purchase frequency and perceived risk", *Journal of Retailing and Consumer Services*, Vol. 25, pp. 81–95.

Meyer, C. and Schwager, A. (2007). "Understanding customer experience", *Harvard Business Review*, Vol 85, pp. 116–126.

Meredith, J. (1998). "Building operations management theory through case and field research", *Journal of Operations Management*, Vol. 16 No. 4, pp. 441–454.

Merrilees, B., and Fry, M. L. (2002). "Corporate Branding: A Framework for E-retailers", *Corporate Reputation Review*, Vol. 5 No. 2–3, pp. 213–225.

Moorhouse N., tom Dieck M.C., and Jung T. (2018), "Technological Innovations Transforming the Consumer Retail Experience: A Review of Literature", In: Jung T., tom Dieck M. (eds) Augmented Reality and Virtual Reality. Progress in IS. Springer, Cham.

Padma, P. and Wagenseil, U. (2018). "Retail service excellence: antecedents and consequences", *International Journal of Retail & Distribution Management*, Vol. 46 No. 5, pp. 422–441.

Parasuraman, A., Valarie A. Zeithaml, and Malhotra, A. (2005), "E-S-Qual:AMultiple-Item Scale for Assessing Electronic Service Quality", *Journal of Service Research*, Vol. 7 No 3, pp. 213–33.

Parasuraman, A., Zeithaml, V. A., and Berry, L. . (1988). "SERVQUAL: a multiple-item scale for measuring consumer perceptions of service quality," *Journal of Retailing*, Vol. 64 No. 1, pp. 12–40.

Park, C.-H., and Kim, Y.-G. (2003). "Identifying key factors affecting consumer purchase behavior in an online shopping context", *International Journal of Retail & Distribution Management*, Vol. 31 No. 1, pp. 16–29.

Park, J. H., and Stoel, L. (2002). "Apparel shopping on the Internet: Information availability on US apparel merchant Web sites", *Journal of Fashion Marketing and Management*, Vol. 6 No. 2, pp. 158–176.

Pucinelli, N. M., Goodstein, R. C., Grewal, D., Price, R., Raghubir, P. and Stewart, D. (2009), "Customer Experience Management in Retailing: Understanding the Buying Process", *Journal of Retailing*, Vol 85 March, pp. 15–30.

Rodrigues, T., Silva, S. C., and Duarte, P. (2017). "The value of textual haptic information in online clothing shopping", *Journal of Fashion Marketing and Management: An International Journal*, Vol. 21 No. 1, pp. 88–102.

Rose, S., Hair, N., and Clark, M. (2011), "Online Customer Experience: A Review of the Business-to-Consumer Online Purchase Context", Economics of Networks eJournal.

Rose, S., Clark, M., Samouel, P., and Hair, N. (2012), "Online Customer Experience in e-Retailing: An empirical model of Antecedents and Outcomes", *Journal of Retailing*, Vol. 88 No. 2, pp. 308–322.

Rose, S., Hair, N., and Clark, M. (2011), "Online Customer Experience: A Review of the Business-to-Consumer Online Purchase Context", *International Journal of Management Reviews*, Vol. 13 No. 1, pp. 24–39.

Saha, S., Duarte, P., Silva, S. and Zhuang, G. (2021). "Supporting sustainability by promoting online purchase through enhancement of online convenience", *Environment, Development and Sustainability*, Vol. 23 No. 5, pp. 7251–7272.

Siddiqui, N., O'Malley, A., McColl, J. C., and Birtwistle, G. (2003). "Retailer and consumer perceptions of online fashion retailers: Web site design issues", *Journal of Fashion Marketing and Management*, Vol. 7 No. 4, pp. 345–355.

Silva, S. C., Duarte, P., and Sundetova, A. (2020). "Multichannel versus omnichannel: a price-segmented comparison from the fashion industry", *International Journal of Retail &*

*Distribution Management*, Vol. 48 No. 4, pp. 417-430.

Silva, S. C., Santos, A., Duarte, P., and Vlačić, B. (2021), "The role of social embarrassment, sustainability, familiarity and perception of hygiene in second-hand clothing purchase experience", *International Journal of Retail & Distribution Management*, Vol. 49 No. 6, pp. 717-734.

Singh, R. (2019), "Why do online grocery shoppers switch or stay? An exploratory analysis of consumers' response to online grocery shopping experience", *International Journal of Retail & Distribution Management*, Vol. 47 No. 12, pp. 1300-1317.

Szymanski, D. M., and Hise, R. T. (2000), "E-satisfaction: An initial examination", *Journal of Retailing*, Vol. 76 No. 3, pp. 309–322.

Towers, A. and Towers, N. (2022), "Framing the customer journey: touch point categories and decision-making process stages", *International Journal of Retail & Distribution Management*, Vol. 50 No. 3, pp. 317-341.

Verhoef, P. C., Lemon, K. N., Parasuraman, A., Roggeveen, A., Tsiros, M. and Schlesinger, L. A. (2009), "Customer experience creation: determinants, dynamics and management strategies", *Journal of Retailing*, Vol. 85 No. 1, pp. 31-41.

Wansbeek, J. (2013), "Identifying the Direct Mail-Prone Consumer", *Journal of Global Scholars of Marketing Science*, Vol. 23 No 2, pp. 175–95.

Wolfinbarger, M., and Gilly, M. C. (2003), "eTailQ: Dimensionalizing, measuring and predicting etail quality", *Journal of Retailing*, Vol. 79 No. 3, pp. 183–198.

Xing, Y., and Grant, D. B. (2006), "Developing a framework for measuring physical distribution service quality of multi-channel and "pure player" internet retailers", *International Journal of Retail & Distribution Management*, Vol. 34, pp. 278–289.

Yang, Z., Jun, M., and Peterson, R. T. (2004), "Measuring customer perceived online service quality: Scale development and managerial implications", *International Journal of*

*Operations and Production Management*, Vol. 24 No. 11, pp. 1149–1174.

Yin, R. K. (2009). *Case study research: design and methods.* (I. Thousand Oaks, CA: Sage Publications (ed.); 4th ed.).

Zhang, M., He, X., Qin, F., Fu, W. and He, Z. (2019), "Service quality measurement for omni-channel retail: scale development and validation", *Total Quality Management & Business Excellence*, Vol 30 No 1, pp. 210-226.

Zeithaml, A., Parasuraman, A., and Malhotra, A. (2000), "A Conceptual Framework for Understanding e-Service Quality: Implications for Future Research and Managerial Practice", *Marketing Science Institute*.

Zeithaml, A, Parasuraman, A., and Malhotra, A. (2002), "Service quality delivery through web sites: A critical review of extant knowledge", *Journal of the Academy of Marketing Science*, Vol. 30 No. 4, pp. 362–375.

Zeithaml, V. A., Bitner, M. J. and Gremler, D. D. (2006), Services Marketing: Integrating Customer Focus Across the Firm. New York: McGraw-Hill.

| | Website Navigation | Merchandise | Reliability | Customer Service | Privacy and Security | Customisation |
|---|---|---|---|---|---|---|
| Chen and Chang (2003) | x | | x | | | |
| Dholakia and Zhao (2010) | x | | x | | | |
| Lee and Lin (2005) | x | | | x | | x |
| Janda *et al.*, (2002) | x | x | x | x | x | |
| Kaynama and Black (2000) | x | x | | | | x |
| Liljander *et al.*, (2002) | x | x | | | x | x |

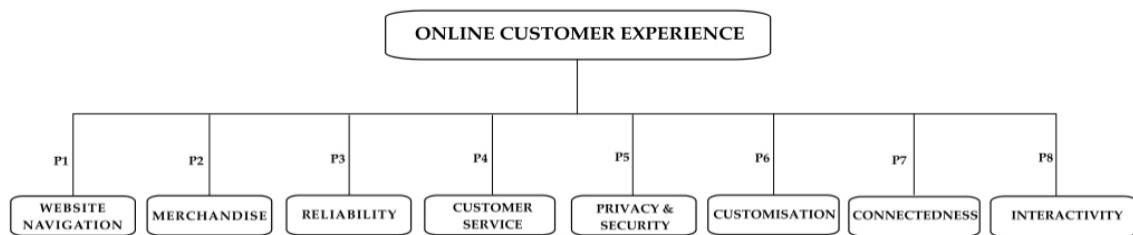| | | | | | | |
|---|---|---|---|---|---|---|
| Park and Stoel (2002) | x | x | x | x | | |
| Hise and Szymanski (2000) | x | x | | | x | |
| Xing and Grant (2006) | | x | x | | | |
| Wolfinbarger and Gilly (2003) | x | | x | x | x | |
| Yang, Jun, and Peterson (2004) | x | x | | x | x | |
| Zeithaml *et al.*, (2000) | x | x | x | x | x | x |
| Zeithaml, Parasuraman, and Malhotra (2002) | x | x | x | x | x | |

*Table 1  Focus of e-service quality studies*



*Figure 1  Proposed Conceptual Model*

| Dimension | Measure Attributes | Key supporting literature |
|---|---|---|
| **P1** | Consistent navigation toolbar<br>Easy to get anywhere on the website<br>Ability to find a page previously viewed<br>Being able to go back<br>Use bullet points to facilitate navigation<br>Load time/High speed of web access<br>Quick View<br>Search Functionalities ('Filter and Sort by features)<br>Different Language Options<br>Different Currency Options<br>Easy to find the product on the website<br>Well-organised information on the websit | Kaynama and Black (2000); Szymanski and Hise (2000); Zeithaml *et al* (2000); Janda *et al* (2002); Liljander *et al* (2002); Park and Stoel (2002); Zeithaml, Parasuraman, and Malhotra (2002) Chen and Chang (2003); Lee and Lin (2005); Wolfinbarger and Gilly (2003); Yang *et al*. (2004); | Previous study in e-SQ |
| **P2** | Product description and information<br>Product size and Selection Range<br>Product Price<br>Product Color Options<br>Product Availability and Stock<br>View from different angles<br>Enlargement functionalities<br>Item care<br>Quality Videos and Photos<br>Content (company's info) | Kaynama and Black (2000); Szymanski and Hise (2000); Zeithaml *et al* (2000); Janda *et al* (2002); Liljander *et al* (2002); Park and Stoel (2002); Zeithaml, Parasuraman, and Malhotra (2002); Jangs and Burns (2004). Yang *et al*. (2004); Xing and Grant (2006); | Previous study in e-SQ |
| **P3** | Shopping cart<br>Payment methods<br>Shipping information<br>Delivery methods<br>Allow Returns and Exchange policy<br>Warranty Service<br>Order status tracking<br>FAQ section | Zeithaml *et al* (2000); Janda *et al* (2002); Park and Stoel (2002); Zeithaml, Parasuraman, and Malhotra (2002); Chen and Chang (2003); Wolfinbarger and Gilly (2003); Jangs and Burns (2004). Xing and Grant (2006); | Previous study in e-SQ |
| **P4** | Customer service contact information (Email, Phone, Contact Form, Physical stores location)<br>Willing to help customers/quickly resolves problems<br>Customer service representatives<br>Assistant Features<br>Ease to get help pages | Zeithaml *et al* (2000); Janda *et al* (2002); Park and Stoel (2002); Zeithaml, Parasuraman, and Malhotra (2002); Wolfinbarger and Gilly (2003); Yang *et al*. (2004); Lee and Lin (2005) | Previous study in e-SQ |

| | | | |
|---|---|---|---|
| **P5** | Ensures customer info is confidential<br>Ensure secure ordering and payment<br>(Cybersecurity Guarantee)<br>Security Appearance (Show security seals<br>Privacy Policy | Szymanski and Hise<br>(2000); Zeithaml, *et al*<br>(2000); Janda *et al* (2002);<br>Liljander *et al* (2002);<br>Zeithaml Parasuraman, and<br>Malhotra (2002)<br>Wolfinbarger and Gilly<br>(2003); Yang *et al.* (2004); | Previous study in e-SQ |
| **P6** | Make changes according to preferences<br>Ability to Change and Update information<br>Wish list<br>Product Personalisation<br>Personal Account<br>Availability to make order notes<br>Site Customisation<br>Automated emails<br>Social Media Ads<br>Customise discounts<br>Show recently view products<br>Shows other products suggestions<br>based on customers preferences<br>Newsletter | Kaynama and Black (2000);<br>Zeithaml *et al.*, (2000);<br>Liljander *et al* (2002);<br>Lee and Lin (2005);<br>Adapted from Rose *et al.*,<br>(2012); Agrebi and<br>Boncori (2017); Jaiswal<br>and Singh (2020); Grewal<br>*et al.*, (2021); Guha *et al.*,<br>(2021); Khrais, (2020) | Previous study in e-SQ<br>New dimension and<br>Attributes studied<br>in OCX and new technological<br>advances |
| **P7** | Write reviews and ratings about products<br>and service<br>Shows other customer reviews and<br>rankings<br>Social Proof Features<br>Social Media Sharing<br>Social Media Links | Adapted from Rose *et al.*,<br>(2012), Agrebi and Boncori<br>(2017) Jaiswal and Singh<br>(2020) | New dimension and<br>Attributes studied in OCX<br>and new technological<br>advances |
| **P8** | Chatbot / Live Chats<br>Virtual Shopping Assistants<br>Provides Virtual Stores<br>3D Virtual Mannequins<br>360-degree experiences<br>3D product presentation | Adapted from Janda *et al.*,<br>(2002); Agrebi and<br>Boncori (2017); Bonetti *et al*<br>(2018); Moorhouse *et al.*,<br>(2018) | New dimensions studied<br>in OCX.<br>Attributes adapted<br>from new technological<br>advances literature |

*Table 2 Measurement dimensions and attributes used in the study*

| Segment | Company | Description | Type of products | Price range | Target consumer |
|---------|---------|-------------|------------------|-------------|-----------------|
| **HIGH PRICE SEGMENT** | **Balutta** | - Conscious, ecological, and local production<br>- Based on sustainable materials<br>- 100% recyclable and vegan<br>- Handmade | Mules, sandals, ankle boots | 290€ - 390€ | High-class, cosmopolitan, attentive women who value quality and have a strong ecological conscience |
| | **Josefinas** | - Minimalist and colorful high-quality ballet shoes<br>- Provides comfortable and glamorous shoes for a professional context<br>- Strong activist brand, focusing on female empowerment | Ballet shoes, boots, sandals, mules, trainers, bags, lunch boxes | 310€ - 797€ | Decided, independent and cosmopolitan women, 30-50 years old with high purchasing power |
| | **Luís Onofre** | - One of the most respected brands in the world of footwear<br>- Specialises in luxury footwear and accessories<br>- Focuses on product quality | Footwear, hats, and bags | 350€ - 900€ | Men and women aged 30-50. Independent, sophisticated, who value elegance, quality, exclusivity, detail |
| **LOW PRICE SEGMENT** | **Wayz** | - Uses recyclable and biodegradable materials<br>- Local supply and production chain<br>- Original genderless non-seasonal designs with limited quantities<br>- 100% transparent pricing policy<br>- Supports social causes | Trainers | 80€ - 150€ | Women and men aged 20-40, with a cosmopolitan spirit and strong environmental and social conscience |
| | **Lemon Jelly** | -Famous for its colorful footwear<br>Waterproof footwear made with plastic and rubber<br>- All its shoes have a signature lemon scent<br>- Was recognised as an official vegan fashion brand by PETA in 2019<br>- Represents fun, joy, and youth<br>- Famous for its colorful footwear<br>- Waterproof footwear made with plastic and rubber | Boots, shoes, sandals, clogs | 35€ - 150€ | Urban and independent women, aged 25-40, who love color and fashion |

| | | | | |
|---|---|---|---|---|
| **Sanjo** | - Main footwear brand in Portugal during the 50's, 60's and 70's<br>- Has faced decline the opening of Portugal to the global market, as it was unable to keep up with the aggressive competition<br>- In 2019 has reinvented itself to the "New Old Brand"<br>- 100% national production<br>- Bets on quality and comfort | Trainers, and more recently clothes | 64,50€<br>-<br>74,50€ | Young and modern segment, to get away from the stereotype of the "parents' footwear brand" |

*Table 3 Case Studies Detailed Analysis*

|  | High Price Segment | | | | Low Price Segment | | | |
|---|---|---|---|---|---|---|---|---|
|  | LUÍS ONOFRE | JOSEFINAS | BALLUTA | Total | WAYZ | LEMON JELLY | SANJO | Total |
| **Website Navigation** | 0.92 | 0.92 | 0.83 | 0.89 | 0.92 | 0.92 | 0.83 | 0.89 |
| **Merchandise** | 0.90 | 0.90 | 0.80 | 0.86 | 0.90 | 1.00 | 1.00 | 0.96 |
| **Reliability** | 0.90 | 0.80 | 0.90 | 0.86 | 1.00 | 0.90 | 0.90 | 0.93 |
| **Customer Service** | 0.50 | 0.50 | 0.25 | 0.41 | 0.88 | 1.00 | 0.88 | 0.92 |
| **Privacy and Security** | 0.75 | 0.75 | 0.75 | 0.75 | 1.00 | 1.00 | 1.00 | 1 |
| **Customisation** | 0.55 | 0.45 | 0.45 | 0.48 | 0.82 | 0.82 | 0.91 | 0.85 |
| **Connectedness** | 0.50 | 0.33 | 0.33 | 0.38 | 1.00 | 0.83 | 1.00 | 0.94 |
| **Interactivity** | 0.50 | 0.00 | 0.00 | 0.16 | 0.17 | 0.00 | 0.00 | 0.05 |
| Total | | 0.59 | | | | 0.82 | | |

*Table 4 Segment Results Comparison*