Chapter 28
The Influence of Web Design on Customer Engagement with an Online Travel Agency

Sergio Dominique-Ferreira, Marta Viana, Catherine Prentice, and Nuno Martins

Abstract Web design, user experience, and information architecture play an important role in improving consumer trust and customer engagement. This study examines whether an updated web design of a Portuguese travel agency may increase leads, and customer engagement based on the best practices. The empirical study was based on a quantitative approach. To analyse the impact of the new version, a Wilcoxon signed rank test was applied. The results show that the updated version has a positive impact on consumers’ intention to visit the travel agency’s webpage, brand trust, and purchase intention.

28.1 Introduction

The tourism industry has become one of the major contributors to the economy in Portugal, over last decades. According to Portuguese Institute of Statistics [1], in 2019 the Portuguese tourism activities increased by approximately 8% when compared to 2018. Although the pandemic has changed the trend, tourism will play a major role in economic recovery [2]. Given the impact of COVID-19, tourist companies must adapt to new market conditions [3].

Customer engagement enables companies to attract more customers (e.g.: [4–6]). In online scenarios, (e-) customer engagement depends on specific determinants, such as...
as web design, user experience (UX), user interface (UI), and information architecture (IA). The better a company’s website is designed, the more trust consumers will have in the brand. Several studies showed the relationship between trust and customer engagement [7, 8]. The current study is intended to examine the impact of an updated web design with the best practices of UX, UI, and IA on customer engagement.

The following section presents a literature review based on web design constructs and e-customer engagement strategies. The case study was conducted to highlight the weaknesses of the website. The methodology of this paper is outlined, followed by data analysis and presentation of results.

28.2 Literature Review

28.2.1 Web Design and e-customer Engagement Strategies

The online travel booking market has grown significantly over the years as a result of the increase in the number of digital platforms. The number of online travel agencies (OTA) users will continue to increase in the coming years [9]. Following this growth, for most businesses and organizations, websites have become the key promotional channel [10]. Since most interactions between companies and users occur online, the design of a website is key to engage users. Poorly designed websites may frustrate users, leading to high bounce rates, and consequently company discredit [10, 11]. Companies must ensure a well-designed e-platform in order to maximize consumer trust and, visitor retention and purchasing behaviour [12, 13]. Developing a co-creation business strategy is considered an important step to achieve higher rates of customer engagement and loyalty [14]. This type of strategy allows companies to increase sales, enabling product, and service customization, leading to greater consumer satisfaction [14].

User Experience. UX Design is a field that focuses on the relationship between human interaction and computer-based products, such as websites and applications. It is a process centred on improving the user experience, creating a useful and accessible product [15]. The main purpose of UX designers is to consider every stage of users’ interaction and ensure that it performs as smoothly as possible. Thus, the main task of a digital designer is to investigate, create wireframes/workflows, and run usability tests to ensure maximum positive impact on users (for more details, see the honeycomb proposed by Morville [16]).

Information Architecture. Information architecture (IA) can be described as the process of organizing content in a structured and effective approach for the purpose of supporting user to navigate complex and massive amounts of data. The main purpose of the design of a website, is to create a structure that allocates the user to comprehend where the contents are located and to help them to understand the path
to take in order to get the information required. A clear IA increases the likelihood that users will re-visit the webpage and will also increase customer engagement [17].

Given time has become a major constraint for consumers, it is crucial to engage customers by finding contents valued by customers. Whilst IA has origins in numerous fields and approaches, there are two key methodologies: library sciences, and cognitive psychology. Gestalt principles, mental models, cognitive load, recognition patterns, and visual hierarchy are some key elements of cognitive psychology most valuable for IA [17]. The eight principles of IA presented by Dan Brown are also considered of great importance to develop a well-planned website with a well-structured content. These principles have a particular importance when promoting specific last minute campaigning (e.g.: price discounts) in order to arouse customer interest. A well-placed and developed advertisement will certainly generate more clicks, increasing user involvement and interest for the time-sensitive offer.

**User Interface and Usability.** Interface represents everything the consumer interacts with in order to reach a certain product. Visual design with functional, intuitive, and interactive interfaces is not only a set of subjective choices but rather the best combination of project objectives, user perspective, and informed decision-making [18].

To maximize the sales potential of products and services, visual design should not be an afterthought. UI is an essential tool to satisfy both users and companies. To develop an engaging and effective UI, designers have to understand the main foundations, such as colour, typography, composition, and how to combine them to communicate efficiently and trigger consumer interest [19]. UI can also be described as the application of usability principles and design standards to create an easy and pleasant understanding and navigation environment. Nielsen [20] refers to usability as a prerequisite for internet survival. An appropriate website with good levels of usability increases customer engagement and revisited rates, vital to e-business success [12]. Lee and Kozar [12] studied the relationships between website usability constructs and online purchase intention, concluding that there are 10 website usability factors that directly and indirectly affect the user purchase intention: (1) telepresence; (2) navigability; (3) interactivity; (4) learnability; (5) readability; (6) content relevance; (7) supportability; (8) simplicity; (9) consistency; (10) credibility.

**Trust and E-customer Engagement.** Customer engagement and trust have been widely discussed as an antecedent of customer purchase and loyalty. Companies need to understand users’ needs and preferences so they can generate trust. TripAdvisor’s business model proves to be a successful example of a strong and trustworthy community. TripAdvisor is a user-generated travel review website that has seen a remarkable growth over the years and, according to Egger and Buhalis [21], its consumers’ reviews are becoming more important than the hotel official star rank. Consumers identify themselves more easily with other consumers than with companies. Even so, there are several elements that contribute to building trust online, boosting online presence, and buying habits. By offering competing prices and convenience, online businesses attract thousands of new users year after year.
Fig. 28.1  Number of digital buyers worldwide from 2014 to 2021

(see Fig. 28.1). The current pandemic situation boosted and reinforced this trend and forced the tourism industry to quickly adapt to users’ needs [22].

However, despite this data, a considerable number of users are still steadfast on online shopping. Wolfe et al. [23] conclude that the reasons why consumers do not purchase travel products online are lack of personal service, security concerns, lack of experience, and lack of time. Now being forced to sell and promote their products online in order to adapt to this new market demand, companies must tackle these impediments to online shopping and elaborate strategies to provide their growth and market share [24]. In a saturated market, companies must develop consumer engagement strategies, alongside with their core services and products in order to attract and retain users.

Nevertheless, according to Kazak et al. [25], technology’s role in customer engagement does not end with the “acquisition” of a customer, but rather presents itself as an initial step in a continuous service delivery process. In order to be successful, brands must not only attract new customers but also find ways to retain them and gain their trust. This can be achieved by developing additional advantages and a clear, constant, and relevant type of communication. The use of AI tools and chatbots enhances the development of personalized micro-targeted marketing campaigns, improving customer’s loyalty [25]. The authors also report that 75% of Booking.com users prefer to search and book travel services according to individual parameters. In terms of personalization, co-creation strategies prove to be a successful approach to increase customer retention. Kwon and Kim [26] report that personalized services enhance customer satisfaction and loyalty by decreasing content overload. As a result, satisfaction can affect customers’ retention, encourage positive word-of-mouth, and increase customer loyalty which can lead to a greater competitiveness. These tailor-made
solutions help the travelling process to be more cost effective, ensuring that reservations are made regarding user’s personal preferences, and enabling the company to present the “perfect trip” based on the customer’s demands, rather than the actions of competitors.

Whilst travel companies know about the market as a whole, AI technology allows knowing individual preferences, demands, influencing consumer decision process [27]. The use of the inbound marketing methodology (see Fig. 28.2) alongside the use of AI technology will also help to attract visitors, increasing leads [28].

By providing products and services based on consumer needs whilst delivering an optimized visual platform (in line with UX guidelines), the chances of the brand successfully engage users increase. A well-design website with good usability constructs has a beneficial impact on visitor retention and purchase behaviour. Garett et al. [10] and Flavian et al. [13] conclude that web design is key to achieve positive outcomes on users online shopping behaviour as the design of a website acts like a framework for companies to generate greater users’ satisfaction and trust levels. Users are more prone to visit and shop in well-designed websites and that the visual interface of it has the power to determinate the relationship between the offer and demand parts.

28.3 Case Study

28.3.1 The Case of Solawest

As presented previously, this paper focuses on a case study, specifically, a Portuguese travel agency (Solawest) that has had problems in achieving a competitive online performance. Solawest is a local and online travel agency based in the north of Portugal. Established in 2001, Solawest is integrated in one of the major travel agency groups in Portugal, the GEA—“Independent Travel Agency”. In 2005, Solawest
launched a website to increase sales. However, the lack of an integrated marketing strategy has a negative effect on companies’ online performance.

Despite this information, users’ flow in 2020 was interesting, as several visitors visited the website of the company. These results are especially encouraging considering the current pandemic. However, despite the “initial interest”, Solawest bounce rate is extremely high (76.62%) showing that a considerable number of users visit but do not stay or explore the website.

A major reason for the online booking being very low and the rejection rate be so high may be related to the fact that the current version of the website does not inspire trust to users. With a non-responsive homepage and the lack of coherence between the several pages presented (see Fig. 28.3), users can not enjoy a smooth navigation or fully understand how the website and content are organized. In addition, since most primary research is conducted through mobile devices, and the first contact has some limitations, the chances of users continuing to explore the rest of the website are low (average of current number of pages per session: 1.53).

In a non-structured interview conducted, the CEO of Solawest was aware that the website was outdated, basic, and confusing. The current version of the web design does not please consumers. As a result, the priority was to develop an updated version of the website based on consumers’ preferences, and design and marketing best practices.

28.4 Methodology

28.4.1 Sample

To understand how and at what level web design affected consumer engagement and user’s online behaviour, the study was conducted on social media and open to all public of legal age interested in participating. Data was collected from a total of 23 participants. The sample consisted of designers, students, dentists, lawyers, e-commerce specialists. 34.8% of the respondents were male, and 65.2% were female.
The age of participants ranged from 18 to 59 years old. 79.3% were between 18 and 29 years old, and 21.7% between 46 and 59. The majority (69.6%) had higher education qualifications.

### 28.4.2 Instruments and Procedure

To evaluate the web design of the two web pages versions (original version and the updated version), an adaptation of the scale of Tangchaiburana and Techametheekul [14] was applied. The main purpose was to analyse the impact of web design on online purchase intention, comparing the original and the updated version. For this purpose, Wilcoxon signed-rank test was used. The questionnaire was developed using Google Forms (online).

### 28.5 Results

#### 28.5.1 Customers’ Online Behaviour

Six questions were asked for this purpose, using a five-point Likert scale. To the question “Do you usually buy products online?” 13% of the subjects responded rarely, 39.1% occasionally, 30.4% frequently, and 17.4% very frequently. Regarding the second question, “How often do you buy tourist products online?”, 17.4% of the respondents mentioned “never”, 47.8% “once a year”, 17.4% “two to three times a year”. Only 4.3% responded “four to five times a year”, and 13% “more than five times a year”. 60.8% of the respondents reported that price discounts and other pricing strategies played an important role in booking repetition. 47.8% reported that it would be highly likely to share online feedback and reviews in exchange to points (gamification strategies). They also reported that it was also more likely for them to subscribe to a newsletter if this would mean future price discounts and other gratifications.

#### 28.5.2 Comparison of the Web Design Evaluation (Version 1 vs. Version 2)

On a posterior phase on the questionnaire, users were presented with the two versions of the website: version 1 corresponded to the actual platform and version 2 to the proposed solution. The Wilcoxon signed rank test was used to compare both versions. The comparative analysis focused on 8 web design items: (1) visual design; (2) information architecture; (3) coherence; (4) intuitiveness; (5) comprehension; (6)
communication channels; (7) search parameters; and (8) user needs. The level of probability to make a reservation and the level of trust was also measured. Results show that the updated version (version 2) presents a much more positive outcome (see Fig. 28.4). Statistical differences were found across all items.

28.5.3 **Web Design, Trust, and Customer Engagement**

All subjects reported that an adequate web design provides greater confidence when shopping online. Furthermore, 95.6% agrees that the webpage design has a positive impact on the brand image and positioning of the brand. 69.5% also refer that they would abandon an online purchase if the website’s visual interface does not convey confidence. When asked directly which version they prefer, 87% responded the updated version. These results are consistent with the previous ones.

28.6 **Discussion and Implications**

The results are in line with the literature showing that web design positively affects customer online behaviour and is a key factor to e-business success [10, 12, 13]. The importance of User Experience (UX) and Information Architecture (IA) has been held at the vanguard to ensure that customers value positively products and services, improving UX within the platform (in line with Morville [16]). The practical approach of this paper has reenforced that users are more prone to shop in well-designed websites, and that the correct application of usability constructs and a clear IA has a positive impact on visitor retention and purchase behavior [10, 13, 17]. In further developments, marketing strategies like the gamification theory and the use of co-creation should be considered to develop more personalized services, as well as a more engaging, satisfied, and loyal community [26]. In line with the results presented in this paper, users are more predisposed to share personal information and engage with brands when presented with rewards for their online actions. The study and application of gamified systems will help create more rewarding experiences
alongside with higher satisfaction rates, improving brand awareness, loyalty, and profitability [29, 30].

Based on the results obtained in this study, brands’ online presence must be developed strategically and based on market research. Thus, the authors recommend a follow-up 2–3 months after launching the updated version of the website, based on: (a) consumer perception; (b) number of visits; and (c) sales volume. Nevertheless, it is important to understand that the current pandemic context might limit the positive impact of the updated version.

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References