



# Evaluating the Post-pandemic Tourist Experience: A Scale for Tourist Experience in Valparaíso, Chile

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**Abstract.** Tourist eXperience (TX) is a concept discussed by many authors over the last couple of decades. TX can be approached as a particular case of Customer eXperience (CX). TX evaluation is complex and challenging, due to its multidimensional nature, and because TX is highly personal. General and specific TX scales have been proposed. Tourism was extremely affected by the COVID-19 global pandemic. New concerns and procedures have emerged for safe trips, and they will likely become the norm in the post-pandemic era. Our study aims to develop a scale to evaluate TX in Valparaíso, Chile. We present a preliminary version of the scale, that includes 56 items, grouped in 8 dimensions: emotions, local culture, authenticity of the place, entertainment, services, post-pandemic experience, loyalty, and general perception. It includes 13 original items, and 43 adapted items, from other authors. The scale will be further validated and refined based on experts' judgment, experiments, and statistical validation.

**Keywords:** Tourist experience · Customer experience · Tourist experience evaluation · Scale · COVID-19

## 1 Introduction

### 1.1 A Subsection Sample

“Tourist eXperience” (TX) as a concept has been discussed by many authors. There is still a lack of consensus on its definition, for several reasons: the subjectivity of the issue, how personal the tourist experience can be, and how multidimensional it is. There are, however, some points of coincidence in the study of TX. There is convergence between authors which consider that TX spans through a period that begins when the tourist is planning a trip, and continues even after this trip occurs, through memories about the activities and learning that were acquired. Yang et al. emphasize that tourism is an intangible commodity, and TX is the results of accumulated experiences and memories related to travel [1].

TX may be considered as a particular case of Customer eXperience (CX). CX includes all physical and emotional responses that a customer experiences before, during and after coming into contact, directly or indirectly, with a brand/company, during his/her whole “journey”, including the post consumption stage [2]. Tourists are specific types of costumers, that are using tourism-related services, products and systems.

CX has a highly interdisciplinary nature; originally proposed in marketing, lately raised interest in several fields. Human-Computer Interaction (HCI) community is showing a growing interest on CX. As other scholars [3], we think that CX is a natural extension of User eXperience (UX), focusing on a person’s interaction to all services, systems and products that a company/organization/brand offers [4, 5]. We studied for years the usability and UX of tourism-related websites, as online travel agencies [6–8], virtual museums [9–11], and national parks [12]. We are now using a broader, holistic approach to TX, from a CX point of view [13–15].

The main objective of our study is to develop a scale to evaluate TX in Valparaíso, Chile. In our view, it would allow a proper diagnose that can help making Valparaíso a better tourist destination. The study is carried out knowing that TX is going to be and currently is very different due to the ongoing COVID-19 pandemic; new concerns and procedures have appeared for safe trips, and Valparaíso is no exception.

The current global pandemic context dramatically affects tourism, which is one of the most important economic activities of Valparaíso. The Chilean Undersecretary of Tourism monthly report “Tourism Barometer for January 2021” exposes important data from the sector, and how the national tourism industry has been affected by the COVID-19 pandemic: a decrease of 75.1% in tourism, and 3,395,104 less foreign tourists visited Chile, compared to 2019 [16]. There are hopes that tourism will recover with the massive vaccination. While the pandemic in Chile was at its most critical point, with almost the entire country in quarantine, the tourism sector of Valparaíso was extremely affected; without tourists and with its trademark funiculars closed, much of the trade closed and tourist activity was put in pause. Since the national pandemic situation got better and the government was removing restrictive sanitary measures, tourism in Valparaíso has been slowly reactivated. However, as January 2022, the new wave of pandemic still rises uncertainty, with daily records of new cases.

The paper presents a first version of the scale to evaluate TX in Valparaíso. Section 2 presents relevant concepts that fundament our study: CX and TX. Section 3 documents the development of the scale, based on bibliographical research. Section 4 highlights conclusions and future work.

## 2 Background

### 2.1 Costumer eXperience

CX has a complex, multidimensional and highly interdisciplinary nature. There is no unique, general agreed, CX definition. Laming and Mason consider that CX includes “the physical and emotional experiences occurring through the interactions with the product and/or service offering of a brand from point of first direct, conscious contact, through the total journey to the post-consumption stage” [2].

The ISO 9241-210 standard [17] defines the UX as “the perceptions and responses of the person resulting from the use and/or anticipated use of a product, system or service”. We consider CX as a natural extension of UX; it focuses on a person’s interaction to all services, systems and products that a company/organization/brand offers, instead of a single one [4, 5]. This is one of the reasons why the HCI community is increasingly studying CX.

CX is constructed across a series of “touchpoints” between costumers and a brand/company/organization; touchpoints are the instances when costumers interact with the products, systems or services that the brand is offering. Touchpoints’ nature is different, and it highly depends on the products/systems/services involved [18]. Correctly identifying touchpoints is a core part of the CX studies.

Thompson indicates some key issues in CX research: emphasizing quantitative research and underestimating the qualitative aspects of CX; proper interpretation of data; and not stressing the link between CX evaluation and design [19]. In our view, some of the reasons that make CX evaluation complex are: CX is constructed through a sequence of touchpoints; the nature of each touchpoint is (very) different; the experience at one touchpoint may (highly) influence experiences at other touchpoints, across the entire customer’s journey; CX has several dimensions; and CX is highly personal [5].

Several sets of CX dimensions/attributes/factors were proposed. Gentile et al. highlight the CX multidimensionality [20]. They synthesize a comprehensive set of CX dimensions: sensorial, emotional, cognitive, pragmatic, lifestyle, and relational.

## 2.2 Tourist eXperience

Tourism (and associated) services offer is rapidly growing. traditional channels for promotion/sales/feedback are replaced by virtual channels. We examined TX as a special case of CX in previous works, identifying scenarios and touchpoints [4, 5]. TX is strongly related to the quality of the services that are offered [21, 22]. However, general CX definitions are not covering the specificity of TX.

Tung and Ritchie synthesized different TX definitional approaches [23]. They consider TX as “an individual’s subjective evaluation and undergoing (i.e., affective, cognitive, and behavioral) of events related to his/her tourist activities which begins before (i.e., planning and preparation), during (i.e., at the destination), and after the trip (i.e., recollection)”. They identified four key dimensions of “memorable” TX: affect, expectations, consequentiality, and recollection.

Analyzing several studies, Godovykh and Tasci propose a “comprehensive yet parsimonious” TX definition [24]. In their view, TX is the “totality of cognitive, affective, sensory, and conative responses, on a spectrum of negative to positive, evoked by all stimuli encountered in pre, during, and post phases of consumption affected by situational and brand-related factors filtered through personal differences of consumers, eventually resulting in differential outcomes related to consumers and brands”. Their TX models includes four components: emotional, cognitive, sensorial, and conative. They also describe the sequential nature of TX.

Walls et al. propose a framework of factors that influence TX [25]: individual characteristics (e.g., health, culture, previous visits, and demographic features), perceived

human interactions in the destination (e.g., the host community's attitude, friendly interpersonal relationships, and service quality), the physical environment (e.g., scenic beauty and landscape, weather, accommodations, and transportation), and situational factors (e.g., the purpose of a trip and one's travel companions).

The current global pandemic dramatically affects tourism. TX currently is and it will remain very different in the post COVID-19 era. Joo et al. studied the perceived risk, emotional solidarity, and support for tourism amidst the COVID-19 pandemic [26]. They indicate that residents express their concerns about the health risks that would accompany tourists. They also highlight the booming of domestic tourism in some countries, due to the international travel restrictions. Hassan and Soliman stress the need to reinforce the good reputation of the destination and to enhance customers' trust in times of crises, like the current global pandemic [27].

### 3 Developing a Scale for Tourist Experience Evaluation

When examining TX as a concept, and its different dimensions, we did not find a proper scale to evaluate TX in Valparaíso, nor considering the pandemic restrictions. So, the need to develop a new one was even more apparent to us. We did find many definitions and dimensions of TX that helped us designing our own scale, that aims to fulfil Valparaíso's specificity when it comes to tourism. The scale is being developed considering several iterations:

1. A preliminary version of the scale was developed based on literature.
2. The scale is being evaluated by experts, academics, and tourism students. The scale will be refined based on their feedback.
3. The scale will be validated through a pilot test. If necessary, adjustments will be made.
4. The final version of the scale will be applied to tourists, and will be statistically validated.

We constructed the scale based on a significant amount of bibliographical resources. We were mainly looking for TX definitions, TX dimensions (attributes, factors), and scales to evaluate TX.

Gallarza and Gil (2007) proposed a scale for the perceived TX, that includes 11 items, grouped in 9 dimensions: efficiency, service quality, social value, entertainment, esthetics, perceived cost, perceived risk, time and effort, and perceived value [28]. Kim et al. (2010) proposed a 24-item scale to evaluate memorable TX; items were grouped in 7 dimensions: hedonism, novelty, local culture, refreshment, meaningfulness, involvement, and knowledge [29]. Martín-Ruiz et al. (2010) developed a scale to evaluate the experience of a visit to an archeological site; it includes 23 items, classified in 6 components: service experience, service quality, access sacrifice, effort sacrifice, general evaluation, and visitor's intentions [30]. The scale allows calculating an evaluation index. Ali et al. (2014) proposed a 23-item scale to evaluate memorable TX in Malaysian resort hotel; they grouped items in 6 dimensions: education, entertainment, esthetics, escapism, memories, and customer loyalty [31]. Kim (2014) developed a 43-item scale to evaluate the destination attributes associated with memorable experiences; the scale allowed

obtaining a 10-attributes construct: infrastructure, accessibility, local culture/history, physiography, activities & events, destination management, quality of service, hospitality, place attachment, and superstructure [32]. Lu et al. (2015) proposed a 14-item scale to evaluate TX at historic districts; items were grouped in 4 dimensions: image, satisfaction, authenticity, and involvement [33]. Sarra et al. (2015) developed a 20-item scale to evaluate TX in Lisbon [34]. Chen and Rahman (2018) proposed a 49-item scale aiming to evaluate the interplay between 5 factors: visitor engagement, cultural contact, memorable tourism experience, intention to recommend, and revisit intention [35]. Coelho and Gosling (2018), developed a 41-item scale to evaluate the memorable TX; items were classified in 10 dimensions: environment, culture, relationship with companions, relationship with tourists, relationship with local agents, dream, emotion, novelty, refreshment, and meaningfulness [36]. Lončarić et al. (2018) proposed a scale to evaluate memorable TX in Croatia; it includes 24 items, grouped in 4 factors: hedonism and novelty, local culture, involvement, and refreshment [37]. Saayman et al. (2018) developed a 7-item scale in order to calculate a tourist well-being index [38]. Torres and Baez (2018) proposed a 21-item scale to evaluate TX in Quito; items were categorized in 5 dimensions: uniqueness, co-creation, entertainment, personal development, and rational quality [39]. All above mentioned scales are evaluating the items using Likert scales of 5 (more frequently) or 7 points.

In order to cover the most important issues that experts have referred, we considered 8 TX dimensions: emotions (8 items), local culture (8 items), authenticity of the place (13 items), entertainment (8 items), services (11 items), post-pandemic experience (4 items), loyalty (2 items), and general perception (2 items). The 56 items were thoroughly reviewed by two UX/CX experts, with computer science and psychology background; items were refined based on their feedback.

Table 1 describes the preliminary scale, indicating its dimensions, the items associated to each dimension, and how items were originated. The scale includes 13 original items and 43 adapted items. 4 new items are COVID-19 pandemic-related, and 8 new items are related to Valparaíso particularity; only 1 new item is general (medical and health services availability).

The preliminary scale was submitted to the judgment of a significant number of tourism experts, academics/scholars, and tourism students. They were asked to evaluate each item using a 5-point Likert scale (1 – not appropriate at all, to 5 – very appropriate). They were also asked to make any comments they considered important, on items individually, as well as any other comments on dimensions, the scale as a whole, and, if necessary, to propose new dimensions and/or items. We are currently evaluating their feedback and will make the necessary adjustments.

The second version of the scale will be validated through a pilot test. If necessary, adjustments will be made. The final version will be then applied to tourists, and will be statistically validated.

The scale was specifically designed to evaluate TX in Valparaíso, Chile. However, if eliminating the 8 items related to Valparaíso, the scale can be used as a general-purpose TX scale. It can also be adapted to other touristic destinations, properly particularizing items specific to Valparaíso. The items can be evaluated using a 5-point or a 7-point Likert scale. A 7-point scale allows a more detailed judgment. Besides, it may be more

**Table 1.** A preliminary scale for tourist experience in Valparaíso, Chile.

Dimensions	Items	Observations
Emotions (8 items)	It was a liberating experience	Adapted from Kim et al. [29], Chen and Rahman [35], Coelho and Gosling [36], Lončarić et al. [37]
	It was a unique experience	Adapted from Kim et al. [29], Chen and Rahman [35], Coelho and Gosling [36], Lončarić et al. [37]
	It was a revitalizing experience, that took me out of monotony	Adapted from Kim et al. [29], Ali et al. [31], Chen and Rahman [35], Coelho y Gosling [36], Lončarić et al. [37]
	I had fun	Adapted from Gallarza and Gil [28], Kim et al. [29], Lu et al. [33], Coelho and Gosling [36], Lončarić et al. [37], Torres and Baez [39]
	I will remember the emotions and sensations that I felt	Adapted from Ali et al. [31], Coelho and Gosling [36]
	I felt positive emotions in general	Adapted from Martín-Ruiz et al. [30], Ali et al. [31], Coelho y Gosling [36]
	I enjoyed the overall experience	Adapted from Chen y Rahman [35], Lončarić et al. [37]
	I will always remember this experience	Adapted from Kim et al. [29], Ali et al. [31], Chen and Rahman [35], Coelho and Gosling [36], Lončarić et al. [37]
Local culture (8 items)	The relationship with the local community was nice	Adapted from Kim et al. [29], Kim [32], Chen and Rahman [35], Coelho and Gosling [36], Lončarić et al. [37]
	I experienced local traditions and customs	Adapted from Kim et al. [29], Kim [32], Chen and Rahman [35], Coelho and Gosling [36], Lončarić et al. [37]

(continued)

**Table 1.** (continued)

Dimensions	Items	Observations
Authenticity of the place (13 items)	I participated in activities organized by local communities	Adapted from Lu et al. [33], Chen and Rahman [35]
	The local community organizes activities open to visitors	Adapted from Lu et al. [33]
	I got a good impression of the local community	Adapted from Kim et al. [29], Chen and Rahman [35], Lončarić et al. [37]
	The local community is unique, and different from my own community	Adapted from Coelho and Gosling [36]
	The local community was ready to help and provide information on Valparaíso	Adapted from Kim [32]
	The identity of Valparaíso is remarkable	Adapted from Torres and Baez [39]
	I learned new things	Adapted from Ali et al. [31]
	I appreciated the historic richness of Valparaíso	Adapted from Lu et al. [33]
	I appreciated the uniqueness of the funiculars (“elevators”)	Original
	I appreciated the uniqueness of the trolleys	Original
	I appreciated the uniqueness and importance of the stairs for Valparaíso	Original
	I appreciated the historical case of Valparaíso, as world heritage	Original
	I appreciated the Valparaíso harbor and its commercial relevance	Original
	I appreciated the coast, the sea, and the associated services	Original

(continued)

**Table 1.** *(continued)*

Dimensions	Items	Observations
	I appreciated the gastronomy of Valparaíso	Adapted from Kim [32], Sarra et al. [34], Saayman et al. [38], Torres and Baez [39]
	I appreciated Valparaíso's architecture	Adapted from Kim [32]
	I appreciated the variety of touristic attractions	Adapted from Kim [32]
	Valparaíso offers a significant cultural diversity	Adapted from Lu et al. [33], Coelho and Gosling [36], Torres and Baez [39]
	Valparaíso's climate is pleasant	Adapted from Torres and Baez [39]
Entertainment (8 items)	Guided tours are available	Adapted from Chen and Rahman [35], Coelho and Gosling [36]
	Cultural activities are freely available	Adapted from Lu et al. [33]
	Valparaíso offers cultural attractions (e.g. galleries, cultural centers, museums)	Adapted from Torres and Baez [39]
	Valparaíso offers activities concerning its history	Adapted from Kim [32], Lu et al. [33]
	I enjoyed participating in activities that Valparaíso offers	Adapted from Kim et al. [29], Ali et al. [31], Chen and Rahman [35], Lončarić et al. [37]
	I performed activities that I have never done before	Adapted from Kim et al. [29], Coelho and Gosling [36], Lončarić et al. [37]
	Valparaíso offers night entertainment attractions	Adapted from Sarra et al. [34]
	I enjoyed carnivals and/or festivals specific to Valparaíso	Adapted from Kim [32]
Services (11 items)	Valparaíso offers diverse options of accommodations	Adapted from Sarra et al. [34], Saayman et al. [38]
	Valparaíso offers diverse restaurants/places to eat	Adapted from Sarra et al. [34], Saayman et al. [38]

*(continued)*



**Table 1.** (continued)

Dimensions	Items	Observations
	Valparaíso offers diverse leisure and relaxation services	Adapted from Kim [32]
	Public restrooms are available	Adapted from Martín-Ruiz et al. [30]
	Medical and health services are available	Original
	Valparaíso has public security services	Adapted from Sarra et al. [34]
	Valparaíso offers accessible tourist information services	Adapted from Martín-Ruiz et al. [30], Kim [32], Sarra et al. [34]
	Tourist agents were friendly	Kim [32], Chen y Rahman [35], Coelho y Gosling [36], Lončarić et al. [37]
	Tourism service quality was as promised	Adapted from Gallarza y Gil [28]
	Valparaíso has appropriate signaling for emergency procedures, as for tsunamis and earthquakes	Original
	Secure areas for tsunamis and earthquakes are clearly indicated	Original
Post-pandemic experience (4 items)	I felt safe, without fear of COVID-19 contagion	Original
	I felt that social distance measures where appropriate	Original
	COVID-19 related safety measures where appropriately informed	Original
	COVID-19 related safety measures did not impede that my experience was enjoyable	Original
Loyalty (2 items)	I would recommend Valparaíso as destination to other tourists	Adapted from Ali et al. [31], Chen and Rahman [35]

(continued)

**Table 1.** (*continued*)

Dimensions	Items	Observations
	I would like to visit Valparaíso again in the future	Martín-Ruiz et al. [30], Ali et al. [31], Chen y Rahman [35]
General perception (2 items)	The experience met my expectations	Adapted from Martín-Ruiz et al. [30], Lu et al. [33]
	I was satisfied with the experience	Adapted from Lu et al. [33], Saayman et al. [38]

familiar to Chilean tourists, as a 7-point scale is generally used in Chile, in many fields, starting with the educational system. Nevertheless, 5-point Likert scales are largely used in TX, and items' evaluation using only 5 levels may be perceived by tourists as easier to perform.

## 4 Conclusions and Future Work

TX has been discussed for decades, by many authors. there is no consensus on a single, unique definition. TX can be considered as a particular case of CX. In fact, some scholars are specifically referring to costumer/consumer experience in tourism, instead of TX. As there is a growing interest in CX in the HCI community, and the number of tourism-related systems, digital products, and services is continuously growing, the HCI community interest in TX is natural.

Evaluating TX is equally challenging as evaluating CX, for several reasons: TX is multidimensional; TX is constructed through a sequence of touchpoints; the nature of each touchpoint is different; the experience at one touchpoint may (highly) influence experiences at other touchpoints, across the entire tourist journey; and TX is highly personal. Several TX scales were proposed; some of them are general, others are specific; many scales aim to evaluate the “memorable” TX. Tourism was extremely affected by the COVID-19 global pandemic; new concerns and procedures have appeared for safe trips, and they will likely become the norm in the post-pandemic era. That is why TX scales should include specific post-pandemic experience items.

As we did not find a proper scale to evaluate TX in Valparaíso, Chile, nor considering the pandemic restrictions, our study aims to develop a specific TX scale. We propose a preliminary version of the scale, that includes 56 items, grouped in 8 dimensions: emotions, local culture, authenticity of the place, entertainment, services, post-pandemic experience, loyalty, and general perception. We constructed the scale based on a significant amount of bibliographical resources; it includes 13 original items, and 43 adapted from other authors. The scale was reviewed by 2 CX experts, and refined based on their feedback. Even if the scale was specifically designed to evaluate TX in Valparaíso, it can also be adapted to other touristic destinations, properly particularizing the Valparaíso specific items.

The scale is currently being evaluated by a significant number of experts, academics, and tourism students, and it will be refined based on their feedback. It will be further validated through a pilot test and adjustments will be made, if necessary. The final version of the scale will be applied to tourists, and will be statistically validated.

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