GeoJournal of Tourism and Geosites
ISSN 2065-1198, E-ISSN 2065-0817

Year XV, vol. 45, no. 4spl, 2022, p.1706-1716
DOI 10.30892/gtg.454spl20-991

TOURIST SATISFACTION DURING THE PANDEMIC: AN ANALYSIS OF THE EFFECTS OF MEASURES TO PREVENT COVID-19 IN A MEDITERRANEAN COASTAL DESTINATION

Indrajeet MALLICK*
Universitat Rovira i Virgili, Department of Geography, Research Group on Territorial Analysis and Tourism Studies (GRATET), Catalonia, Spain, e-mail: indrajeet.mallick@estudiants.urv.cat

Daniel MIRAVET
Universitat Rovira i Virgili, Department of Economics, Research Centre on Economics and Sustainability (ECO-SOS), Catalonia, Spain, e-mail: daniel.miravet@urv.cat

Aaron GUTIÉRREZ
Universitat Rovira i Virgili, Department of Geography, Research Group on Territorial Analysis and Tourism Studies (GRATET), Catalonia, Spain, e-mail: aaron.gutierrez@urv.cat

Citation: Mallick, I., Miravet, D., & Gutiérrez, A. (2022). TOURIST SATISFACTION DURING THE PANDEMIC: AN ANALYSIS OF THE EFFECTS OF MEASURES TO PREVENT COVID-19 IN A MEDITERRANEAN COASTAL DESTINATION. *GeoJournal of Tourism and Geosites*, 45(4spl), 1706–1716. https://doi.org/10.30892/gtg.454spl20-991

Abstract: The impact of the COVID-19 on tourist satisfaction is a particular relevant issue, due to the role that elements such as the prevention measures implemented at the destination might play. For this reason, this article examines tourist satisfaction during the peak tourist season of 2020 in a mature coastal destination in Catalonia in relation to safety and prevention measures imposed due to the COVID-19 pandemic. We use explanatory factor analysis and partial least squares path modelling for comparing the determinants of tourist satisfaction prior and during the pandemic based on surveys conducted in 2019 (N = 1556) and 2020 (N = 2220). The results suggest that the determinants of overall tourist satisfaction in 2019 remained significant in 2020. Moreover, although tourists especially appreciated feeling safe in 2020, our results suggest that such a perception was unrelated to measures to prevent COVID-19. The paper raises concerns towards the management of situations such as the pandemic in tourist destinations, as a proper balance must be found between the need of making visitors feel safe, and avoiding measures that can be felt as invasive or annoying, hampering the tourist experience.

Key words: tourist satisfaction, COVID-19, prevention measures, safety perception, coastal destination

* * * * * *

INTRODUCTION

Tourism demand is highly sensitive to disruptions such as political and economic instability (Eid et al., 2019), terrorism (Araña and Leon, 2008), crime (Yüksel and Yüksel, 2007) and adverse climatic events (Giddy et al., 2017). In fact, risk is an intrinsic component of the tourist experience, one that has to be taken into consideration when analysing the determinants of tourist satisfaction (Xie et al., 2020). In that context, tourists' fear and discomfort can affect their experience by way of the negative emotions attached to them (Alegre and Garau, 2010). At the same time, actions implemented to mitigate the effects of those disruptions can also significantly impact tourist satisfaction. That impact can be positive, if the actions are perceived by tourists to relieve their perception of risk (Payam, 2016), or negative, if they are perceived as too forceful or ineffective. Though undesirable, many tourist destinations are occasionally affected by disturbances such as those mentioned. Along with those risks, public health crises are another sort of adverse event that can seriously hamper the tourist experience, as demonstrated by the global spread of COVID-19 (Nilashi et al., 2021).

The COVID-19 pandemic massively impacted tourist activity around the world in 2020, and the tourism sector remains in recovery to this day. In 2020, the global tourism industry shrunk by more than 80%, and, in the first quarter of that year, tourist arrivals dropped by more than 20% (UNWTO, 2020). The pandemic initially forced many nations to close their borders, which prevented domestic and international travel as well as compelled many hospitality-related establishments such as restaurants, bars, and hotels to shut down, either temporarily or forever. In time, constraints such as lockdowns and social distancing measures began altering the environment of the tourism industry in every aspect (Gössling et al., 2021).

Since then, tourism activities have been forced to live with the restrictions imposed to slow the spread of COVID-19 infection, along with individuals' fear of contracting the illness. Within the particular context of the pandemic, not only have tourist arrivals plummeted, but both the profile of tourists (Arbulú et al., 2021) and their behaviour during stays (Sánchez-Perez et al., 2021) have changed, sometimes dramatically. Beyond that, a wide range of emerging evidence has captured the plummeting of tourism travel and, in international travel in particular, (Haryanto, 2020), the existence of uneven effects depending on the sort of destination (Duro et al., 2021), the extent to which the pandemic has affected tourists' choices, the profiles of tourists who visit certain destinations (Cuomo et al., 2022) and the vaccination-associated

* Corresponding author

effects on the recovery of tourism demand (Williams et al., 2022). Tourist satisfaction is one of the most important dimensions in the tourist sector. According to Jang and Feng (2007), it is also one of the most important variables to consider when analysing tourist behaviour, largely because it affects destination selection, product and service consumption and the decision to return. For those reasons, tourist satisfaction has attracted the attention of researchers, albeit to a somewhat limited extent. In our case, analysing tourist satisfaction during the peak tourist season of 2020 in a mature coastal destination characterised by mass tourism was expected to allow us to disentangle the role of safety and prevention measures implemented as determinants of tourist satisfaction. Thus, the aim of our study was twofold.

On the one hand, we sought to examine whether the different components of overall tourist satisfaction changed their effect as a result of the pandemic and, more particularly, whether the role of safety gained ground in that context. On the other hand, we also sought to analyse whether measures to prevent COVID-19 also played a role in the determination of tourist satisfaction. The prevention measures at the time of the survey embraced the compulsory use of face masks outdoors as well as indoors and continuous hand hygiene, restrictions on the number of people who could simultaneously access certain facilities and the time-limited use or closure of certain activities enjoyed by tourists.

BACKGROUND

Despite the risk of contracting COVID-19, people have not stopped travelling during the pandemic (Roman et al., 2020). Although their top reasons to travel regardless of the pandemic have been to relax and to engage in leisure activities, their selection of destinations has played a vital role in their decisions about whether to travel. Consistent with that idea, some authors have signalled the emotional benefits of tourism for recovering from the stress and anxiety caused by the pandemic (Buckley and Westaway, 2020; Buckley, 2022). No matter their basis, tourists' perceptions of the risk of COVID-19 came to the fore in 2020 as one the most important factors in their decision-making (Huang et al., 2020, 2021), and it also shaped their behaviour at the destination (Shin et al., 2022). In that context, there are few studies that have assessed the impact of the pandemic on tourist satisfaction, and even fewer that compared the situation before and after the pandemic. Amongst the ones that have been conducted, they have tended to focused on just particular sectors of the tourism industry. In fact, attention has most often been paid to certain types of accommodations. For instance, Hong et al. (2020) and Cai et al. (2020) analysed tourist satisfaction with Chinese B&B, Voon et al. (2022) with homestay accommodations in Malaysia and Cai et al. (2020) with ryokans in Japan, while Srivastava and Kumar (2021), Song et al. (2022), Sun et al. (2022), Yu et al. (2022) and Nilashi et al. (2022) have all investigated changes for hotel customers caused by COVID-19.

According to Srivastava and Kumar (2021) there are three elements through which COVID-19 can modify the usual dynamics that define tourist satisfaction: (1) the negative health consequences of the disease, (2) the guidelines and advisories issued by health agencies, and (3) wide media coverage of the pandemic. A concept able to explain how COVID-19 has negatively altered tourist satisfaction since the pandemic broke out is *psychological risk*, which refers to the probability that tourists' travel and tourism experiences may adversely impact their self-image and satisfaction (Adam, 2015). Within that framework, the spread of the infection threatened not only people's physical health but also their mental health, especially in terms of emotions and cognition, both of which are major sources of tourist satisfaction.

The predominancy of works based on hotel data is due to the possibility to explore the frequency of words used in the reviews provided by their customers. This allows researchers to explore the relationship of these words with the overall satisfaction level reported. On top of that, this research strategy also enables researchers to compare satisfaction before and after the outbreak of the SARS-CoV-2. For this reason, next, the most outstanding studies will be discussed, paying attention to the data and the methods used, as the source of data used highly conditions the empirical approach. The contribution of Srivastava and Kumar (2021) must be highlighted as it was the first to compare the factors that accounted for overall satisfaction of satisfied and unsatisfied customers of the hotel industry before and during the pandemic. The authors analysed the prevalence of a diversity of attributes within customers' reviews of hotels from the United States, which were collected from TripAdvisor. The overnight stays took place from December 2019 to June 2020.

They found that there were attributes such as "COVID precautions" and "blue spaces" (oceans, lakes, rivers, and swimming pools), that had increased their prevalence in the satisfied and unsatisfied customers' comments alike. In the case of COVID prevalence, it increased from 0% (prior-to-the pandemic) to 6% of all reviews (during it), and it was found that their implementation was critical to enhance overall satisfaction. In contrast, other elements such as "breakfast," "property impression," and "convenient location" decreased their presence for satisfied and dissatisfied guests. Song et al. (2022) also explored customers' reviews, in this case from the region of Chengdu, a top tourist destination in China. Reviews were related to the period from February to May 2020, and the same months of 2019. The results of their multiple regression models made apparent that while service, room, cleanness, location, value and sentiment were significant determinants of overall satisfaction, service was no longer significant in the data drawn from 2020.

Sun et al. (2022) also used data drawn from customers' reviews to conclude that they gave more generous ratings during the pandemic, whereas hotel prevention and control measures to reduce health risks after the COVID-19 were central for improving overall satisfaction. Yu et al. (2022) collected worldwide TripAdvisor reviews from February to April 2020, and by means of a method-design that combined both quantitative and qualitative techniques, concluded that hotel customers' positive affect substantially impacted their online ratings, whereas negative affect and cognitive effort were negatively associated to customer satisfaction. Nilashi et al. (2022) also departing from TripAdvisor reviews developed a much more complex method-design which involved Latent Dirichlet Allocation (LDA) for textual data analysis, k-means for data segmentation, dimensionality reduction approach for the imputation of the missing values, and fuzzy rule-based for the prediction of satisfaction level. Their results signalled not only that service was critical to maintain customers'

satisfaction within the context of the health crisis, but also that new dimensions of "services" have arose. In this line, tourists would be expecting to get more services related to the prevention of contracting the infection.

Hong et al. (2020) applied IPA (Importance performance analysis) on data drawn from an on-line survey launched from the 1st of March to the 15th of the same month in 2020. This work used paired differences to assess customers' valuation of a list of 30 different attributes of B&B located in Zhejiang (China) before the advent of the pandemic, and their perceived importance during it. The conclusion was that the pair differences were in most of the cases significant, and consequently, there was a discordance between the aspects that were regarded as important before the spread of the virus, and afterwards. They concluded that the COVID-19 increased the concern for health aspects of B&B establishments: scattered room layouts, split air conditioning systems, availability of products for cleaning and disinfection, and natural ventilation.

These were attributes that were found be of high priority or priority. Cai et al. (2020) replicated the methodology put forward by Hong et al. (2020) (IPA and paired differences, and the same list items to be valued by customers), to analyse the impact on the valuation of customers of Japanese guesthouses, minshuku, and ryokans. Likewise, they detected differences between the valuation of the accommodation attributes before the pandemic and their importance after the breakout of the illness, and were able to ascertain that natural ventilation and materials to maintain safe interior indoor air quality were elements of high priority in the new context. Cai et al. (2021) used confirmatory factor analysis and structural equation modelling on data collected by means of an on-line survey conducted in Wenjuanxing (China) during the first national holiday after COVID-19 in 2020. The results of the model signalled that after the pandemic design-based strategies and design environmental value have a significant main impact on well-being perception, tourist satisfaction, and tourist loyalty. The same methodology, confirmatory factor analysis and structural equation modelling, was applied by Voon et al. (2022) on data drawn from a survey to tourists who stayed overnight in Malaysian homestay accommodations.

Eight latent factors, departing from an initial set of 32 items, arouse: culture, guiding service, food and beverage, environment, cleanliness, accommodation, services, and accessibility). The authors concluded that prevention practices in the context of COVID-19 may appear as disruptive for tourists. They can be appreciated by them if they are effectively explained and reminded in a friendly manner, nevertheless.

Beyond the analyses of accommodation within the pandemic, in which safety has been pointed out as a key element to foster customer satisfaction, and given that before the COVID-19 research had pinpointed that tourists' perceptions of safety and security impact their choice of destinations and satisfaction (Milman and Pizam, 1995), the effect of two elements on overall tourist satisfaction should be taken seriously into account: perceived safety and prevention measures at the destination to deter the spread of infection. Altogether, evidence is scarce. It is consistent nonetheless with the results previously summarized related to accommodation. Hence, concerning perceived safety, Mwesiumo and Abdalla (2022) found that, for tourists in Tanzania, epistemic value, value for money and perceived safety were significantly associated with overall satisfaction. Meanwhile, Ma et al. (2022) concluded that air passengers with positive perceptions of the functionality of facilities, the accessibility of their layout and the cleanliness of airports were more satisfied than their peers with negative perceptions and were relatively prone to report wanting to take more flights in the future. In other work, using a survey launched in June 2020, Lu and Atadil (2021) found that U.S. citizens were reluctant to travel to China largely due to perceptions that the country's destinations were neither safe nor secure. Beyond that, Ababneh et al. (2022) found that undergraduate university students' level of satisfaction with restaurant services could be predicted by service quality, perceived value, COVID-19-related safety measures in place and food quality. Last, Zaman et al. (2021) have highlighted that destinations with the reputation of being COVID-19-free by means of vaccination programmes were more likely than others to attract tourists and to begin seeing pre-pandemic figures of tourism demand.

Addressing how measures to prevent COVID-19 have impacted tourist satisfaction and destination image, Humagain and Singleton (2021) identified the positive impact of satisfaction with anti-COVID-19 practices at destinations with outdoor recreation trips on tourists' perceived value, overall satisfaction, intention to revisit and intention to recommend. More recently, Huete-Alcocer and Hernández-Rojas (2022) detected the positive effect of COVID-19 safety measures on tourist satisfaction with restaurants in Córdoba, a World Heritage Site in Spain. In other work, Shum and Ghosh (2022) highlighted that restaurant employees' prosocial breaking of public health safety protocols in place to combat COVID-19 can have a substantial negative impact on the establishments' performance ratings. Jiménez-Medina et al. (2022), for their part, concluded that hospitality establishments' adoption of anti-COVID-19 measures positively influences tourist satisfaction and tourists' intention to return. Similar results were obtained by Szentesi et al. (2021), with data drawn from a survey of both customers and employees of hotels in Romania. Added to that, Park et al. (2021) concluded that residents' attitudes towards tourism activity during the pandemic can be improved if anti-COVID-19 measures were perceived to have been implemented. Vich et al. (2022) reached a similar conclusion in the context of public transport services that frequently carry tourists.

For our work, Davras and Durgun's (2022) contribution is especially interesting, for they assessed how different measures to prevent COVID-19 had been rated by TripAdvisor users between June and August 2020. Their results revealed that whereas measures taken by hospitality establishments such as disinfection and hygiene were well-rated, the opposite was observed for social distancing requirements and the mandatory use of masks. Those results suggest that whereas the former did not seem inconvenient for customers, the latter did, even though such practices are more effective at preventing the spread of contagion. Likewise, as reported by Constant et al. (2022), not all anti-COVID-19 measures have received the same degree of acceptance. In that vein, the temporarily closure of certain services and spaces receives the lower approval. The lesson learnt is that measures to prevent COVID-19 can be perceived as being annoying and hamper tourists' experiences. That reality might be a consequence primarily of pandemic fatigue (Boylan et al., 2021), which makes individuals more prone to break socially accepted rules and conventions observed to prevent the spread of contagion (Drody et al., 2022).

With regard to the works that have been previously commented, to the best of our knowledge this is the first attempt to assess to what extent the determination of overall tourist satisfaction has been affected by the outbreak of the pandemic, by means of an analysis involving both the comparison between prior-to-the pandemic data and data collected during the pandemic, and at the same time, the use of data, collected by means of interviews, that gather information on satisfaction of all tourists at a destination and their whole tourist experience, instead of just one particular sector of the tourist product, as it happened with works which were focused just on accommodation.

DATA

Study area

Located in Catalonia, 100 km south of Barcelona, Costa Daurada is one of the most popular coastal destinations in the Spanish Mediterranean. According to data provided by the Costa Daurada Tourism Observatory, in 2019 the area was visited by more than 5 million tourists, who together made approximately 20 million overnight stays. Those figures plummeted in 2020, however, due to the effects of the COVID-19 pandemic. According to data of Tourism Open Knowledge of the Costa Daurada Tourism Observatory, tourist arrivals and overnight stays in the Costa Daurada region dropped by 70% and 75%, respectively, from 2019 to 2020. In Costa Daurada, tourism activity is primarily concentrated in the municipalities of Salou, Cambrils and Vila-seca, which together account for more than 70% of the area's total tourism capacity. All three are small coastal cities with populations ranging from 20,000 to 35,000. Also within the Costa Daurada area, two midsized cities are located not far from the most dynamic tourist municipalities; Tarragona has a population of more than 134,000 and Reus a population of 100,000. All of those cities are well connected by road and public transport. As a result, tourist excursions in Costa Daurada are easy to organise, fast and comfortable.

The area's chief attractions are its beaches and sunny weather, along with several cultural attractions in Tarragona and Reus. On top of that, the Roman remains of Tarragona have been designated as a UNESCO World Heritage Site. Last, Port Aventura, located between Salou and Vila-seca, ranks amongst the top-five theme parks in Europe (Anton Clavé, 2010), one that received approximately 5.2 million visitors in 2019. In Costa Daurada and across Spain, measures to prevent COVID-19 were introduced after the end of the lockdown in the early summer of 2020. People had to wear facemasks indoors and outdoors beginning on 9 July, and nightclubs were forced to close on 25 July.

Data collection

We used microdata from a tourism demand survey conducted annually by the Costa Daurada Tourism Observatory in the municipalities of Cambrils Salou and Vila-seca. The survey items address the characteristics of tourists' trip, their stays and activities during their holidays, and socioeconomic variables, as well as tourists' perceptions of different dimensions of the destination. Access to the microdata was granted via a research cooperation agreement. Given our objective to gauge whether the determinants of tourist satisfaction have changed as a result of the COVID-19 pandemic, we selected data from 2019 (i.e. pre-pandemic) and from 2020 samples (i.e. mid-pandemic). We used data from a total 3776 respondents collected during interviews: 1556 from 2019 and 2220 from 2020. The fact that the sample size for 2020 clearly exceeded that for 2019 did not compromise the robustness of the methodology applied. Partial least squares (PLS) was applied to each of the samples separately. During the high tourist season from June to September in both 2019 and 2020, interviews were conducted on all seven days of the week, while during the rest of the year they were conducted only at weekends.

Table 1. Descriptive statistics of the profile of tourists in Costa Daurada in 2019 and 2020

		2019		**2020**	
		N = 1556		*N* = 2220	
		Frequency	Percentage	Frequency	Percentage
Origin	Spain	662	42.54%	1907	85.90%
	France	267	17.16%	161	7.25%
	Other	627	40.30%	152	6.85%
Profile	Couples with no children	581	37.34%	1018	45.86%
	Families with children	661	42.48%	700	31.53%
	Travelling with friends	238	15.30%	339	15.27%
	Alone	76	4.88%	163	7.34%
Age	15–44 years	663	42.61%	665	29.95%
	45–64 years	537	34.51%	963	43.38%
	>64 years	356	22.88%	592	26.67%
Accommodation	Hotel	764	49.10%	500	22.52%
	Camping	96	6.17%	157	7.07%
	Apartment	276	17.74%	281	12.66%
	Second home	346	22.24%	1121	50.50%
	Other	74	4.76%	161	7.25%
Length of stay	1–3 nights	179	11.50%	602	27.12%
	4–7 nights	675	43.38%	634	28.56%
	8–15 nights	505	32.46%	363	16.35%
	>15 nights	197	12.66%	621	27.97%
Gender	Woman	750	48.20%	1057	47.61%
	Man	806	51.80%	1163	52.39%
Repeat visit?	Yes	1075	69.09%	1994	89.82%
	No	481	30.91%	226	10.18%

The overall distributions of interviews conducted in the districts of each municipality were defined proportionally to the number of tourists hosted in each area. Beyond that, different survey points were chosen in the three municipalities; all are key locations that attract the main tourist flows (e.g. beaches, coastal waterfronts and shopping or leisure areas). The selection of individual tourists to be surveyed at each location was random, the survey was performed by professional staff, and each individual interview took an average of approximately 5 minutes to complete. On the 2019 and 2020 surveys, items that allow measuring different aspects of tourist satisfaction were cleanliness of public areas, safety, the kindness of locals, accommodation services, public transport, facilities for pedestrians, entertainment and night life, green areas, the

cleanliness of beaches and the sea, facilities on beaches, quality-to-price ratio, signage, restaurants in general and overall degree of satisfaction. In 2020 a specific question on satisfaction with COVID-19 prevention measures was added to the questionnaire. On those surveys, respondents were also asked to rate the level of perceived overcrowding at the destination. Responses for satisfaction ranged from 1 (*very poor*) to 5 (*excellent*) on a 5-point Likert scale, whereas ones for overcrowding, on another 5-point Likert scale, ranged from 1 (*there is no overcrowding*), to 5 (*it's totally overrun by tourism*).

Descriptive statistics

Table 1 presents the descriptive statistics of the profile of tourists in 2019 and in 2020 and showcases the unprecedented disruptions caused by the COVID-19 pandemic for tourism demand. The share of foreign visitors dropped dramatically from 57% in 2019 to only 14% in 2020. Second homes gained ground in 2020, from 22% to 50%, whereas hotels lost it and dropped from 49% to 23%. In relative terms, the shortest stays (i.e. 1–3 nights) and the longest ones (i.e., >15 nights) also grew, together with the proportion of tourists who had previously stayed overnight in Costa Daurada, which rose from 69% to 90%. In sum, the tourist profile changed significantly in 2020, for in that year the destination was primarily visited by domestic tourists who owned property in the area, whereas international tourists hardly travelled there at all.

Table 2 presents the descriptive statistics of the variables related to tourist satisfaction. Some of the corresponding items listed here were not used in the forthcoming analysis due to large numbers of missing values; they included accommodation services, entertainment and night life, public transport and restaurants in general. Missing values resulted from the fact that not all visitors used or consumed all of the tourist products offered in the destination. For instance, not all visitors ate in restaurants. Overall, visitors in Costa Daurada were highly satisfied and reported an overall level of satisfaction of 4.44 in 2019 and 4.29 in 2020, both on a 5-point scale ranging from 1 and 5. Thus, overall satisfaction slightly declined from one year to the next. In fact, the decline between 2019 and 2020 affected all items presented in Table 2.

The kindness of locals and facilities for pedestrians were the items that obtained the highest rates in 2019 and 2020 alike. Whereas there were no rates less than 4.0 in 2019, with quality-to-price ratio and cleanliness of public areas having the lowest levels of satisfaction, in 2020 four items fell below 4.0: quality-to-price ratio, cleanliness of public areas, facilities on beaches and cleanliness of beaches and the sea . Last, measures to prevent COVID-19, surveyed only in 2020, achieved a rating of 3.74 and was thus the element that received the lowest score.

METHODS

The proposed methodology is presented in Figure 1.

Factor analysis

Factor analysis is a statistical technique first developed to describe correlations between individuals' mental test scores (Spearman, 1904). Following Yong and Pearce (2013), the model for factor analysis can be expressed as follows:

$$x = \mu + \Lambda f + e \quad (1)$$

For a *p*-element vector x of observed variables, there is a $p \times k$ matrix Λ of loadings, a *k*-element vector f of scores, a mean *p*-element vector μ and a vector of error terms e. Thus, vector x denotes the observed data accounted for by the vector f of latent variables, whereas μ is assumed to be zero. Scores are uncorrelated and their variance equals 1. Because the error terms are uncorrelated with themselves and with the scores, the loadings can be interpreted as correlations between the original variables and the scores. The factors are obtained by maximum likelihood estimation, and, in that particular case, conducting exploratory factor analysis (EFA) can provide initial estimates of the association between variables and their latent factors.

Table 2. Descriptive statistics of variables of tourist satisfaction that account for overall satisfaction

	Full sample		**2019**		**2020**	
	N = 3776		*N* = 1556		*N* = 2220	
Cleanliness of public areas	*M*	*SD*	*M*	*SD*	*M*	*SD*
Safety	3.98	0.93	4.14	0.82	3.87	0.98
Kindness of locals	4.17	0.82	4.29	0.72	4.08	0.88
Facilities for pedestrians	4.27	0.74	4.31	0.76	4.24	0.72
Green areas	4.26	0.81	4.34	0.74	4.20	0.86
Signage	4.11	0.82	4.25	0.77	4.02	0.85
Cleanliness of beaches and the sea	4.13	0.73	4.18	0.73	4.10	0.72
Facilities on beaches	4.07	0.92	4.23	0.82	3.96	0.97
Quality-to-price ratio	4.00	0.91	4.19	0.75	3.87	0.98
Measures to prevent COVID-19	3.99	0.80	4.09	0.76	3.92	0.82
Overall satisfaction	3.74	1.00			3.74	1.00
	4.35	0.65	4.44	0.60	4.29	0.67

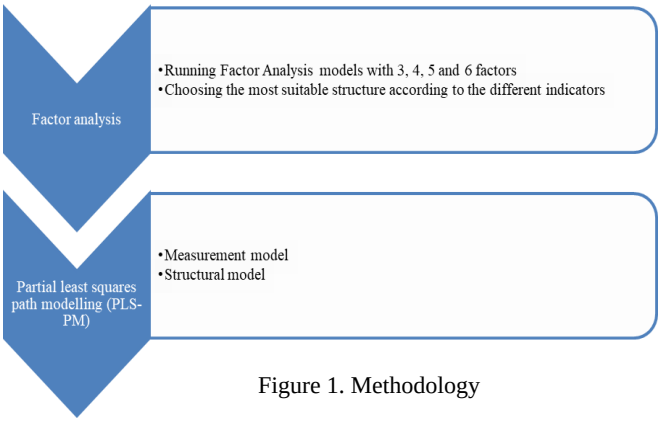

Figure 1. Methodology

Partial least squares path modelling (PLS-PM)

PLS-PM is a multivariate methodology that assesses both direct and indirect effects on presumptive causal relationships (Benitez et al., 2020). In PLS-PM, there are two types of models: the measurement model and the structural model. The measurement model, which takes into account the relationships between a latent variable and the corresponding manifest variables, following McIntosh et al. (2014) can be expressed as:

$$x = \Lambda_x \xi + \delta, \quad (2)$$

in which x denotes the observed variables, ξ represents the latent variables, Λ denotes the factor loadings, and δ indicates the error terms. By contrast, the structural model represents the relationships between the latent variables or constructs and following McIntosh et al. (2014) can be written as:

$$\eta = \alpha + \beta_\eta + \Gamma\xi + \zeta \quad (3)$$

in which η is an *m*-vector of generic latent endogenous constructs or variables, ξ is an *n*-vector of generic latent exogenous constructs or variables, α is an *m*-vector of intercept terms, β is an $m \times m$ matrix of generic path coefficients that place the influence of η on each other, Γ is an $m \times n$ matrix of coefficients of the effect of ξ on η, and ζ is the *m*-vector of errors that contains the unexplained parts of η.

RESULTS: EFA

To ensure that the factors entered into the PLS-PM models for 2019 and 2020 were identical and that the coefficients of the pre-pandemic and mid-pandemic models were therefore comparable, we ran an EFA with the data from both years. Several well-established parameters for the factorability of the correlations were studied, including the Kaiser–Meyer–Olkin (KMO) sampling adequacy measure (Kaiser, 1974) and Bartlett's test of sphericity, both of which validated a factor structure with four factors. All eigenvalues exceeded 1, and the percentage of total explained variance was 54%. The results of the EFA, shown in Table 3, produced a clean factor structure with relatively high loadings for the factors. The results showed that the alpha coefficients of the four factors ranged from 0.68 to 1 and thus exceeded the minimum value of 0.5 which is considered to be an appropriate indication of reliability in basic research (Nunally, 1975). The four dimensions of destination attributes extracted were labelled "general safety", "destination characteristics", "beaches" and "quality-to-price ratio".

Table 3. Results of exploratory factor analysis

	Factor 1	Factor 2	Factor 3	Factor 4	KMO	Communality	Eigenvalue	% of variance	Cronbach Alpha
General safety									
Cleanliness of public areas	**0.391**	0.15	0.271	−0.013	0.892	0.491	1.032	0.110	0.680
Safety	**0.823**	0.003	−0.013	0.021	0.891	0.663			
Destination									
Kindness of locals	0.211	**0.423**	-0.032	0.053	0.923	0.332			
Facilities for pedestrians	0.023	**0.682**	−0.031	−0.042	0.931	0.433	1.443	0.160	0.711
Green areas	0.021	**0.441**	0.221	0.003	0.932	0.391			
Signage	−0.043	**0.541**	0.043	0.181	0.910	0.464			
Beaches									
Cleanliness beaches and	0.011	−0.013	**0.871**	−0.013	0.881	0.741	1.341	0.150	0.723
Facilities on beaches	0.041	0.121	**0.493**	0.152	0.883	0.473			
Quality-to-price ratio									
Price–quality relationship	0.012	0.000	0.000	**0.931**	1.000	0.881	1.042	0.120	1.000

Note: Overall KMO = 0.9, Bartlett's test of sphericity = chi-square- 11281; *p* - 0; *df* = 36

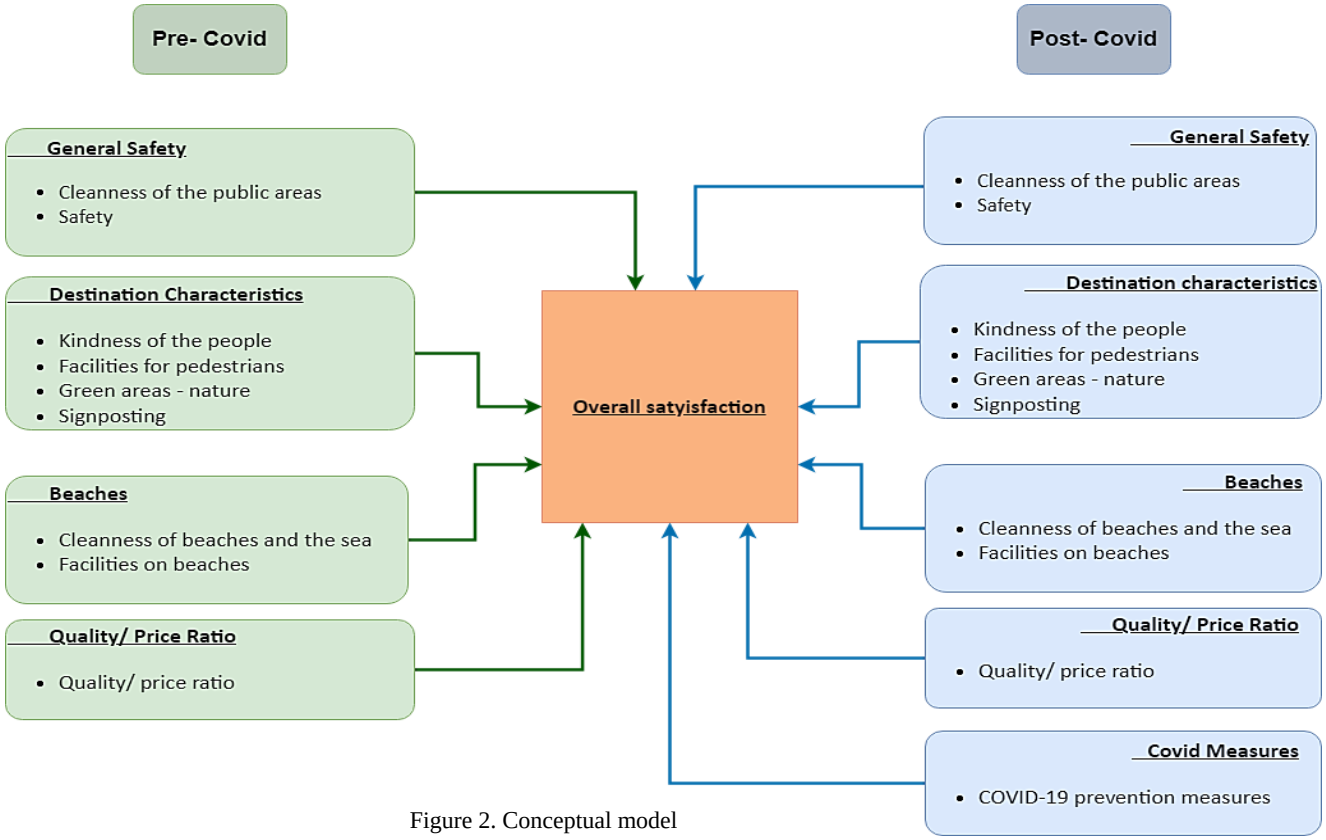

Figure 2. Conceptual model

PLS-PM

Because the EFA that we conducted provided an optimal initial structure of the data, the initial PLS path model was

modified to improve its fit, and the proposed model, depicted in Figure 1, was thus converged. For 2019, the four latent constructs obtained from the EFA were considered: safety and security, destination characteristics, beaches and quality-to-price ratio. For 2020, in addition to those four latent variables, a fifth element was introduced: how tourists rated measures to prevent COVID-19. The PLS-PM simulation of the model was performed by taking into account a large number of parameters, including item loading, reliability and validity. Following Henseler et al. (2009), it involved a two-step process of calculating the PLS model parameters separately by solving out the blocks of the measurement model and estimating the path coefficients of the structural model.

Measurement model

According to Müller et al. (2018), it is essential to ensure convergent validity and discriminant validity such that the fit indices indicate an appropriate model fit. Cronbach's alphas and average variance extracted (AVE) were used to measure convergent validity; all Cronbach's alpha values exceeded 0.6, the threshold value recommended by Dijkstra and Henseler (2015). Moreover, the AVE of each construct exceeded the threshold of 0.5 (see Appendix B) recommended by Fornell and Larcker (1981) and Hair et al. (2017). Following Fornell and Larcker (1981), the square root of the AVE of each latent variable was used to establish discriminant validity. The correlations were all less than the value of the square root of the AVE values and thus indicated an acceptable level of discriminant validity amongst the variables (see Appendix B). The model therefore fit the data well and had validities at appropriate levels.

Table 4. Results of the pre- and post-COVID-19 measurement models

Pre-COVID-19	Loading	Cronbach's alpha	DG.rho	eig.1st	eig.2nd	AVE
Beaches	0.911	0.784	0.903	1.65	0.355	0.823
	0.903					
Destination characteristics	0.702	0.721	0.827	2.18	0.686	0.544
	0.750					
	0.725					
	0.772					
General safety	0.884	0.715	0.875	1.56	0.444	0.778
	0.880					
Quality-to-price ratio	1.000	1.000	1.000	1.000	0.000	1.000
Satisfaction-19	1.000	1.000	1.000	1.000	0.000	1.000

Post-COVID-19	Loading	Cronbach's alpha	DG.rho	eig.1st	eig.2nd	AVE
Beaches	0.874	0.684	0.863	1.52	0.48	0.76
	0.869					
Destination characteristics	0.738	0.708	0.82	2.13	0.651	0.533
	0.711					
	0.704					
	0.765					
General safety	0.853	0.655	0.853	1.49	0.513	0.743
	0.872					
Quality-to-price ratio	1.000	1.000	1.000	1.000	0.000	1.000
COVID-19 measures	1.000	1.000	1.000	1.000	0.000	1.000
Satisfaction-20	1.000	1.000	1.000	1.000	0.000	1.000

Note: AVE = average variance extracted. RMSEA = 0.061 pre-COVID-19 and 0.055 post-COVID-19; SRMR = 0.027 pre-COVID-19 and 0.028 post-COVID-19; Goodness-of-fit index value = 0.5293 pre-COVID-19 and 0.4865 post-COVID-19.

Table 5. Results for the Fornell–Larcker criterion of discriminant validity pre- and post-COVID-19

Pre-COVID-19	General safety	Destination characteristics	Beaches	Quality-to-price ratio	Satisfaction-19
General safety	**0.882**				
Destination characteristics	0.628	**0.737**			
Beaches	0.541	0.568	**0.907**		
Quality-to-price ratio	0.443	0.574	0.488	**1.000**	
Satisfaction-19	0.457	0.622	0.452	0.474	**1.000**

Post-COVID-19	General safety	Destination characteristics	Beaches	Quality-to-price ratio	COVID-19 measures	Satisfaction-20
General safety	**0.861**					
Destination characteristics	0.563	**0.728**				
Beaches	0.511	0.562	**0.872**			
Quality-to-price ratio	0.404	0.553	0.487	**1.000**		
COVID-19 measures	0.475	0.44	0.327	0.297	**1.000**	
Satisfaction-20	0.431	0.577	0.409	0.442	0.297	**1.000**

Structural model

Table 6 and Figure 3 present the results of the structural models for 2019 and 2020. Following Hair et al. (2016), we used bootstrapping techniques with 5000 samples to evaluate *t* statistics and confidence intervals (*p*). The goodness-of-fit values obtained in the PLS-PM analysis were 0.5293 before the COVID-19 pandemic and 0.4865 during it, whereas the respective R^2 values were 0.417 and 0.368. Both indicators point to a downward trend in the capacity of traditional measures of tourist satisfaction to account for overall satisfaction. The results of the model suggest that the four latent variables considered (i.e. general safety, destination characteristics, beaches and quality-to-price ratio) were all significant in the models for 2019 and 2020. Although a stronger effect was attached to destination characteristics (i.e. 0.45 in 2019 and 0.40 in 2020), the rest of the variables presented far smaller correlations. Second in importance was the quality-to-price ratio (i.e. 0.14 in 2019 and 0.15 in 2020), whereas the lowest correlations were associated with beaches (i.e., 0.10 in 2019 and 0.05 in 2020) and general safety (i.e. 0.06 in 2019 and 0.12 in 2020). Even so, the most outstanding result was

that measures to prevent COVID-19 did not exhibit any significant association with satisfaction in 2020. The comparison between data from 2019 and 2020 allows disentangling the extent to which the pandemic affected tourist satisfaction. Figure 2 and Table 3 shown that the effect of the latent variables on overall satisfaction tended to vary from one year to the next. To begin, the path coefficient of general safety nearly doubled from 2019 to 2020. Conversely, the correlation with beaches was almost halved, whereas the effect associated with destination characteristics also diminished, albeit to a far lesser extent. By contrast, the path coefficient of the quality-to-price ratio increased slightly. It should be highlighted that although general safety was the least important element for tourists in 2019, it surpassed beaches in 2020.

Table 6. Pre- and post-COVID-19 structural models

Relationships pre-COVID-19	Effects	*t* value	Pr (>|*t*|)	Result
Beaches -> Satisfaction-19	0.096	3.812	0.000	Significant
Destination characteristics -> Satisfaction-19	0.446	15.703	0.000	Significant
Quality-to-price ratio -> Satisfaction-19	0.144	5.902	0.000	Significant
General safety -> Satisfaction-19	0.060	2.310	0.021	Significant

Relationships post-COVID-19	Effect	*t* value	Pr(>|*t*|)	Result
Beaches -> Satisfaction-20	0.052	2.381	0.018	Significant
Destination characteristics -> Satisfaction-20	0.398	16.62	0.000	Significant
Quality-to-price ratio -> Satisfaction-20	0.147	6.981	0.000	Significant
General safety -> Satisfaction-20	0.118	5.313	0.000	Significant
COVID-19 measures -> Satisfaction_20	0.005	0.264	0.792	Not significant

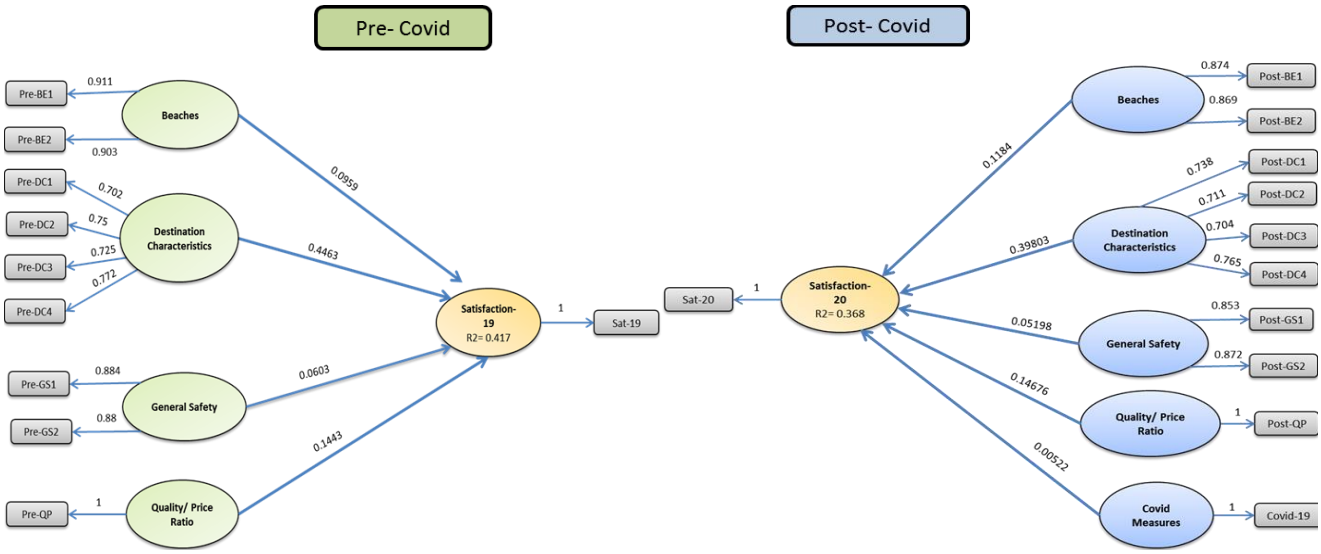

Figure 2. Proposed PLS path model

DISCUSSION AND CONCLUSION

In our work, we sought to discern the extent to which the COVID-19 pandemic altered the determination of tourist satisfaction in Costa Daurada, a very popular Mediterranean coastal destination, during the peak tourist season in 2020. The conclusions of our research are necessarily limited to the particular circumstances brought about by the spread of the coronavirus that included restrictions on travelling, especially to international destinations, as well as limitations on activities at destinations and individuals' logical fear of contracting the virus. Analysing the COVID-19 impact on such popular coastal destinations is particularly relevant, as they have proven to be particularly vulnerable to the effects of the pandemic (Duro et al., 2021). Given such specific vulnerability, it is critical to pinpoint the extent to which the determination of tourist satisfaction has been affected by the pandemic while taking into consideration that tourist satisfaction is key for individuals' decisions, including about whether or not to return to destinations (Jang and Feng, 2007).

EFA and PLS-PM were applied to two sets of data regarding tourists. The first contained data drawn from a survey of tourists at Costa Daurada in 2019 (N = 1556), whereas the second was based on the same survey that was replicated in the summer of 2020 (N = 2220). The questionnaire for both surveys along with the traditional items used to characterise tourists' demand included how tourists rated different elements of the destination and their overall level of satisfaction. Beyond that, the questionnaire in 2020 also contained items specifically related to COVID-19, including how tourists rated the measures in place to prevent COVID-19. Four factors emerged from the EFA—general safety, destination characteristics, beaches and quality-to-price ratio—all of which were found to be significant determinants of overall tourist satisfaction in both 2019 and 2020. Especially important was the effect associated with the characteristics of the destination that embraced elements such as the kindness of locals, facilities for pedestrians, green areas and signage. Probably the most outstanding result was the non-significance of the measures to prevent COVID-19 at the destination, which contradicts published findings (Humagain and Singleton, 2021; Huete-Alcocer and Hernández-Rojas, 2022; Jiménez-Medina et al., 2022).

In view of that result, the question arises whether tourist satisfaction has had anything to do with measures to prevent COVID-19 during the pandemic. Along those lines, the PLS model provided evidence that even though there was no direct effect of the measures to prevent COVID-19 on tourists' overall satisfaction, there was sufficient evidence of its indirect

effect. For one, the results indicate the substantial growth of the path coefficient of general safety compared with 2019. Thus, feeling safe in 2020, which primarily included the original variables of the cleanliness of public areas and safety, gained considerable importance during the pandemic. For another, the factor loading of pedestrian facilities with respect to general safety also grew in 2020 compared with 2019. In sum, although visitors were eager to feel safe during their stays at the destination in 2020, that sense of safety did not directly derive from measures to prevent COVID-19. In fact, such measures (e.g. compulsory use of face masks or hand washing, physical distance, capacity limitations or even closure of activities) were liable to be perceived as annoying and mundane (Sadiković et al., 2020).

Tourists who visited the Costa Daurada in 2020 appreciated a feeling of safety more than in previous years. How that feeling of safety was achieved, however, is another question. Direct measures to prevent COVID-19 did not exert a significant influence on tourist satisfaction, meaning that such a feeling of safety could be more effectively achieved in a more indirect way by expanding pedestrian facilities, promoting outdoor tourist activities instead of indoor ones and/or implementing actions to diminish the density of visitors in certain crowded locations. Those sorts of actions should generate a spillover effect on other dimensions of tourist satisfaction. By contrast, the absence of any significant impact attached to measures to prevent COVID-19, despite not increasing tourist satisfaction, at least signals that they were not perceived as being overly annoying for tourists. In terms of destination management, the results indicate that phenomena such as health crises, including the COVID-19 pandemic, are especially difficult to handle at mass tourism destinations. Aside from guaranteeing tourists' and residents' health, tourists' perceptions are also important. On the one hand, visitors need to feel safe, as proven by its increased weight in 2020 compared with 2019 in the PLS path model. Previous works have shown that the absence of health safety is a powerful deterrent of the intention to travel for tourism (Chua et al., 2021) and leads to negative experiences for tourists (Jonas et al., 2011). On the other hand, an excess of prevention measures could be perceived as unpleasant and/or invasive or could convey the idea that the destination poses a serious threat. Given the dynamic evolution of the coronavirus responsible for COVID-19, which is highly related to individuals' perceptions of risk, a working balance between X and Y has been particularly difficult to strike. Added to that, the diversity of individuals' perceptions of the pandemic has further complicated the implementation of a proper response.

Several elements suggest approaching our results with caution. For one, the incidence of the pandemic, even though increasing, was relatively low during that summer after the spring lockdown in Spain. Thus, data related to other destinations with different levels of incidence are required in order to prove the consistency of the results. For another, the prevention measures implemented were specific to Catalonia, whose government was responsible for COVID-19 policy during the period examined, whereas other preventive measures could have led to different reactions amongst tourists. Last, the tourist profile dramatically changed from 2019 to 2020, and, likewise, the samples of tourists differed greatly from one year to the next. The fact that many individuals ruled out the idea of travelling to a popular coastal destination under the threat of COVID-19 warrants consideration. In fact, most of those who did stayed in an apartment or a second home, which considerably minimised their risk of contracting the illness. Last, restrictions on international travels were imposed, which has to be taken into account. All of those caveats and limitations, however, leave the door open to future research able to provide further evidence of the effect of preventive measures on satisfaction, the results of which would be highly valuable for destination managers needing to cope with future critical situations, no matter how undesirable.

Acknowledgements

The research was funded by the Provincial Council of Tarragona and the Fondo Supera COVID-19 created by Santander Bank, CRUE Universidades Españolas and the Consejo Superior de Investigaciones Científicas (CSIC). Access to the microdata was granted via a research cooperation agreement between Eurecat (Tourism Observatory of Costa Daurada) and the Research Group on Territorial Analysis and Tourism Studies (GRATET). This publication is part of the R+D+i project ADAPTOUR (Contract No. PID2020-112525RB-I00) funded by MCIN/AEI/10.13039/501100011033.

REFERENCES

Ababneh, K.I., Ponnaiyan, S., ElMelegy, A.R., & Prybutok, V. (2022). Determinants of customer satisfaction and behavioral intentions in fast-food restaurants among undergraduate students during the COVID-19 pandemic. *Quality Management Journal*, 29(2), 104-124. https://doi.org/10.1080/10686967.2022.2034491

Adam, I. (2015). Backpackers' risk perceptions and risk reduction strategies in Ghana. *Tourism Management*, 49, 99–108. https://doi.org/10.1016/j.tourman.2015.02.016

Alegre, J., & Garau, J. (2010). Tourist satisfaction and dissatisfaction. Annals of tourism research, 2010, 37(1), 52-73. https://doi.org/10.1016/j.annals.2009.07.001

Anton Clavé, S. (2010). Leisure parks and destination redevelopment: the case of PortAventura, Catalonia. *Journal of Policy Research in Tourism, Leisure and Events*, 2(1), 66–78. https://doi.org/10.1080/19407960903542326

Araña, J.E., & León, C.J. (2008). The impact of terrorism on tourism demand. *Annals of tourism research*, 35(2), 299-315. https://doi.org/10.1016/j.annals.2007.08.003

Arbulú, I., Razumova, M., Rey-Maquieira, J., & Sastre, F. (2021). Can domestic tourism relieve the COVID-19 tourist industry crisis? The case of Spain. *Journal of Destination Marketing & Management*, 20, 100568. https://doi.org/10.1016/j.jdmm.2021.100568

Benitez, J., Henseler, J., Castillo, A., & Schuberth, F. (2020). How to perform and report an impactful analysis using partial least squares: Guidelines for confirmatory and explanatory IS research. *Information and Management*, 57(2), 103168. https://doi.org/10.1016/j.im.2019.05.003

Boylan, J., Seli, P., Scholer, A.A., & Danckert, J. (2021). Boredom in the COVID-19 pandemic: Trait boredom proneness, the desire to act, and rule-breaking. *Personality and individual differences*, 171, 110387. https://doi.org/10.1016/j.paid.2020.110387

Buckley, R. (2022). Tourism and Mental Health: Foundations, Frameworks, and Futures. *Journal of Travel Research*, 00472875221087669. https://doi.org/10.1177/00472875221087669

Buckley, R., & Westaway, D. (2020). Mental health rescue effects of women's outdoor tourism: A role in COVID-19 recovery. *Annals of Tourism Research*, 85, 103041. https://doi.org/10.1016/j.annals.2020.103041

Cai, G., Hong, Y., Xu, L., Gao, W., Wang, K., & Chi, X. (2020). An evaluation of green ryokans through a tourism accommodation survey and customer-satisfaction-related CASBEE–IPA after COVID-19 pandemic. *Sustainability*, 13(1), 145. https://doi.org/10.3390/su13010145

Cai, G., Xu, L., & Gao, W. (2021). The green B&B promotion strategies for tourist loyalty: Surveying the restart of Chinese national holiday travel after COVID-19. International *Journal of Hospitality Management*, 94, 102704. https://doi.org/10.1016/j.ijhm.2020.102704

Chua, B.L., Al-Ansi, A., Lee, M.J., & Han, H. (2021). Impact of health risk perception on avoidance of international travel in the wake of a pandemic. *Current Issues in Tourism*, 24(7), 985-1002. https://doi.org/10.1080/13683500.2020.1829570

Constant, A., Conserve, D., Gallopel-Morvan, K., & Raude, J. (2022). Cognitive factors associated with public acceptance of COVID-19 nonpharmaceutical prevention measures: cross-sectional study. JMIRx Med, 3(2), e32859. https://doi.org/10.2196/32859

Cuomo, M.T., Tortora, D., Danovi, A., Festa, G., & Metallo, G. (2022). Toward a 'New Normal'? Tourist Preferences Impact on Hospitality Industry Competitiveness. *Corporate Reputation Review*, 25(3), 212-225. https://doi.org/10.1057/s41299-021-00123-7

Davras, Ö., & Durgun, S. (2022). Evaluation of precautionary measures taken for COVID-19 in the hospitality industry during pandemic. *Journal of Quality Assurance in Hospitality & Tourism*, 23(4), 960-982. https://doi.org/10.1080/1528008X.2021.1932013

Dijkstra, T.K., & Henseler, J. (2015). Consistent and asymptotically normal PLS estimators for linear structural equations. *Computational Statistics and Data Analysis*. https://doi.org/10.1016/j.csda.2014.07.008

Drody, A.C., Hicks, L.J., & Danckert, J. (2022). Boredom Proneness and Rule-Breaking: A Persistent Relation One Year into the COVID-19 Pandemic. *Behavioral Sciences*, 12(8), 251. https://doi.org/10.3390/bs12080251

Duro, J.A., Perez-Laborda, A., Turrion-Prats, J., & Fernández-Fernández, M. (2021). Covid-19 and tourism vulnerability. *Tourism Management Perspectives*, 38, 100819. https://doi.org/10.1016/j.tmp.2021.100819

Eid, R., El-Kassrawy, Y.A., & Agag, G. (2019). Integrating destination attributes, political (in) stability, destination image, tourist satisfaction, and intention to recommend: A study of UAE. *Journal of Hospitality & Tourism Research*, 43(6), 839-866. https://doi.org/10.1177/1096348019837750

Fornell, C., & Larcker, D.F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error, *Journal of Marketing Research*. https://doi.org/10.2307/3151312

Giddy, J.K., Fitchett, J.M., & Hoogendoorn, G. (2017). Insight into American tourists experiences with weather in South Africa. *Bulletin of Geography. Socio-economic Series*, 38, 57-71. https://doi.org/10.1515/bog-2017-0034

Gössling, S., Scott, D., & Hall, C.M. (2021). Pandemics, tourism and global change: a rapid assessment of COVID-19, *Journal of Sustainable Tourism*, 29(1), 1–20. https://doi.org/10.1080/09669582.2020.1758708

Hair, J., Hult, T.M., Ringle, C., & Sarstedt, M. (2016). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. SAGE publications.

Hair Jr, J.F., Sarstedt, M., Ringle, C.M., & Gudergan, S.P. (2017). *Advanced issues in partial least squares structural equation modeling*. SAGE publications.

Haryanto, T. (2020). COVID-19 pandemic and international tourism demand. *JDE (Journal of Developing Economies)*, 5(1), 1-4. https://doi.org/10.20473/jde.v5i1.19767

Henseler, J., Ringle, C.M., & Sinkovics, R.R. (2009). The use of partial least squares path modeling in international marketing. *Advances in International Marketing*, 20, 277-319. https://doi.org/10.1108/S1474-7979(2009)0000020014

Hong, Y., Cai, G., Mo, Z., Gao, W., Xu, L., Jiang, Y., & Jiang, J. (2020). The Impact of COVID-19 on Tourist Satisfaction with B&B in Zhejiang, China: An Importance–Performance Analysis. *International Journal of Environmental Research and Public Health*, 17(10), 3747. https://doi.org/10.3390/ijerph17103747

Huang, X., Dai, S., & Xu, H. (2020). Predicting tourists' health risk preventative behaviour and travelling satisfaction in Tibet: Combining the theory of planned behaviour and health belief model. *Tourism Management Perspectives*, 33, 100589. https://doi.org/10.1016/j.tmp.2019.100589

Huang, S.S., Shao, Y., Zeng, Y., Liu, X., & Li, Z. (2021). Impacts of COVID-19 on Chinese nationals' tourism preferences. *Tourism management perspectives*, 40, 100895. https://doi.org/10.1016/j.tmp.2021.100895

Huete-Alcocer, N., & Hernández-Rojas, R.D. (2022). Do SARS-CoV-2 safety measures affect visitors' experience of traditional gastronomy, destination image and loyalty to a World Heritage City?. *Journal of Retailing and Consumer Services*, 69, 103095. https://doi.org/10.1016/j.jretconser.2022.103095

Humagain, P., & Singleton, P.A. (2021). Examining relationships between COVID-19 destination practices, value, satisfaction and behavioral intentions for tourists' outdoor recreation trips. *Journal of Destination Marketing & Management*, 22, 100665. https://doi.org/10.1016/j.jdmm.2021.100665

Jang, S., & Feng, R. (2007). Temporal destination revisit intention: The effects of novelty seeking and satisfaction. *Tourism Management*, 28(2), 580–590. https://doi.org/10.1016/j.tourman.2006.04.024

Jiménez-Medina, P., Navarro-Azorín, J.M., Cubillas-Para, C., & Artal-Tur, A. (2022). What Safety and Security Measures Really Matter in the Post-COVID Recovery of the Hospitality Industry? An Analysis of the Visitor's Intention to Return in Spain. *Tourism and Hospitality*, 3(3), 606-617. https://doi.org/10.3390/tourhosp3030037

Jonas, A., Mansfeld, Y., Paz, S., & Potasman, I. (2011). Determinants of Health Risk Perception Among Low-risk-taking Tourists Traveling to Developing Countries'. *Journal of Travel Research*, 50(1), 87–99. https://doi.org/10.1177/0047287509355323

Kaiser, H.F. (1974). An index of factorial simplicity, *Psychometrika*, 39(1), 31–36. https://doi.org/10.1007/BF02291575

Lu, Q., & Atadil, H.A. (2021). Do you dare to travel to China? An examination of China's destination image amid the COVID-19. *Tourism Management Perspectives*, 40, 100881. https://doi.org/10.1016/j.tmp.2021.100881

Ma, G., Ding, Y., & Ma, J. (2022). The Impact of Airport Physical Environment on Perceived Safety and Domestic Travel Intention of Chinese Passengers during the COVID-19 Pandemic: The Mediating Role of Passenger Satisfaction. Sustainability, 14(9), 5628. https://doi.org/10.3390/su14095628

McIntosh, C.N., Edwards, J.R., & Antonakis, J. (2014). Reflections on Partial Least Squares Path Modeling. *Organizational Research Methods*, 17(2), 210–251. https://doi.org/10.1177/1094428114529165

Milman, A., & Pizam, A. (1995). The Role of Awareness and Familiarity with a Destination: The Central Florida Case. *Journal of Travel Research*, 33(3), 21–27. https://doi.org/10.1177/004728759503300304

Müller, T., Schuberth, F., & Henseler, J. (2018). PLS path modeling – a confirmatory approach to study tourism technology and tourist behavior. *Journal of Hospitality and Tourism Technology*. Emerald Publishing Limited, 9(3), 249–266. https://doi.org/10.1108/JHTT-09-2017-0106

Mwesiumo, D., & Abdalla, M.D.J. (2022). Exploring the relative importance of epistemic value, value for money and perceived safety in visitors' evaluation of a destination. *Current Issues in Tourism*. https://doi.org/10.1080/13683500.2022.2105197

Nilashi, M., Abumalloh, R.A., Alghamdi, A., Minaei-Bidgoli, B., Alsulami, A.A., Thanoon, M., Asadi, S., & Samad, S. (2021). What is the impact of service quality on customers' satisfaction during COVID-19 outbreak? New findings from online reviews analysis. *Telematics and Informatics*, 64, 101693. https://doi.org/10.1016/j.tele.2021.101693

Nilashi, M., Abumalloh, R.A., Minaei-Bidgoli, B., Zogaan, W.A., Alhargan, A., Mohd, S., Syed Azhar, S.N.F., Asadi, S., & Samad, S. (2022). Revealing travellers' satisfaction during COVID-19 outbreak: moderating role of service quality. *Journal of Retailing and Consumer Services*, 64, 102783. https://doi.org/10.1016/j.jretconser.2021.102783

Nunally, J.C. (1975). Psychometric Theory - 25 Years Ago and Now. *Educational Researcher*, 4(10), 7–21. https://doi.org/10.3102/0013189X004010007

Park, S.Y., Park, J.Y., Kim, J.W., Chang, M., & Kim, M. (2021). Exploring the Satisfaction with COVID-19 Prevention Measures and Awareness of the Tourism Crisis for Residents' Tourism Attitude. *The Journal of Industrial Distribution & Business*, 12(7), 27-39. https://doi.org/10.13106/jidb.2021.vol12.no7.27

Payam, M.M. (2016). Tourists' security: The need for tourism police in Bosnia and Herzegovina. *British Journal of Economics*, Management & Trade, 12(1), 1-9. https://doi.org/10.9734/bjemt/2016/23135

Roman, M., Niedziółka, A., & Krasnodębski, A. (2020). Respondents' Involvement in Tourist Activities at the Time of the COVID-19 Pandemic, *Sustainability*, 12(22), 9610. https://doi.org/10.3390/su12229610

Sadiković, S., Branovački, B., Oljača, M., Mitrović, D., Pajić, D., & Smederevac, S. (2020). Daily monitoring of emotional responses to the coronavirus pandemic in Serbia: A citizen science approach. *Frontiers in psychology*, 11, 2133. https://doi.org/10.3389/fpsyg.2020.02133

Sánchez-Pérez, M., Terán-Yépez, E., Marín-Carrillo, M.B., Marín-Carrillo, G.M., & Illescas-Manzano, M.D. (2021). The impact of the COVID-19 health crisis on tourist evaluation and behavioural intentions in Spain: Implications for market segmentation analysis. *Current Issues in Tourism*, 24(7), 919-933. https://doi.org/10.1080/13683500.2021.1889481

Shin, H., Nicolau, J.L., Kang, J., Sharma, A., & Lee, H. (2022). Travel decision determinants during and after COVID-19: The role of tourist trust, travel constraints, and attitudinal factors. *Tourism Management*, *88*, 104428. https://doi.org/10.1016/j.tourman.2021.104428

Shum, C., & Ghosh, A. (2022). Safety or service? Effects of employee prosocial safety-rule-breaking on consumer satisfaction. *International Journal of Hospitality Management*, *103*, 103225. https://doi.org/10.1016/j.ijhm.2022.103225

Spearman, C. (1904). The Proof and Measurement of Association between Two Things. *The American Journal of Psychology*, 15(1), 72. https://doi.org/10.2307/1412159

Srivastava, A., & Kumar, V. (2021). Hotel attributes and overall customer satisfaction: What did COVID-19 change?. *Tourism Management Perspectives*, 40, 100867. https://doi.org/10.1016/j.tmp.2021.100867

Song, Y., Liu, K., Guo, L., Yang, Z., & Jin, M. (2022). Does hotel customer satisfaction change during the COVID-19? A perspective from online reviews. *Journal of Hospitality and Tourism Management*, 51, 132-138. https://doi.org/10.1016/j.jhtm.2022.02.027

Sun, S., Jiang, F., Feng, G., Wang, S., & Zhang, C. (2021). The impact of COVID-19 on hotel customer satisfaction: evidence from Beijing and Shanghai in China. *International Journal of Contemporary Hospitality Management*, 34(1), 382–406. https://doi.org/10.1108/IJCHM-03-2021-0356

Szentesi, S.G., Cuc, L.D., Feher, A., & Cuc, P.N. (2021). Does COVID-19 Affect Safety and Security Perception in the Hospitality Industry? A Romanian Case Study. *Sustainability*, 13(20), 11388. https://doi.org/10.3390/su132011388

UNWTO (2020). *International Tourist Numbers Could Fall 60-80% in 2020, UNWTO Reports* Available at: https://www.unwto.org/news/covid-19-international-tourist-numbers-could-fall-60-80-in-2020.

Vich, G., Gutiérrez, A., Delclòs-Alió, X., Tomàs-Porres, J., & Miravet, D. (2022). Presence of tourists and perceived safety from COVID-19 among local bus users: Evidence from a Mediterranean city. *Transportation Research Interdisciplinary Perspectives*, 14, 100599. https://doi.org/10.1016/j.trip.2022.100599

Voon, B.H., Jee, T.W., Joseph, C., Hamzah, M.I., Jussem, P.M., & Teo, A.K. (2022). Homestay Service Experience for Tourist Satisfaction and Sustainability Amidst Covid-19 Challenges. *International Journal of Business and Society*, 23(2), 1127-1146. https://doi.org/10.33736/IJBS.4861.2022

Williams, N.L., Nguyen, T.H.H., Del Chiappa, G., Fedeli, G., & Wassler, P. (2022). COVID-19 vaccine confidence and tourism at the early stage of a voluntary mass vaccination campaign: A PMT segmentation analysis. *Current Issues in Tourism*, 25(3), 475-489. https://doi.org/10.1080/13683500.2021.1963216

Xie, C., Huang, Q., Lin, Z., & Chen, Y. (2020). Destination risk perception, image and satisfaction: The moderating effects of public opinion climate of risk. J*ournal of Hospitality and Tourism Management*, 44, 122-130. https://doi.org/10.1016/j.jhtm.2020.03.007

Yong, A.G., & Pearce, S. (2013). A Beginner's Guide to Factor Analysis: Focusing on Exploratory Factor Analysis. *Tutorials in Quantitative Methods for Psychology*, 9(2), 79–94. https://doi.org/10.20982/tqmp.09.2.p079

Yu, M., Cheng, M., Yang, L., & Yu, Z. (2022). Hotel guest satisfaction during COVID-19 outbreak: The moderating role of crisis response strategy. *Tourism Management*, 93, 104618. https://doi.org/10.1016/j.tourman.2022.104618

Yüksel, A., & Yüksel, F. (2007). Shopping risk perceptions: Effects on tourists' emotions, satisfaction and expressed loyalty intentions. *Tourism management*, 28(3), 703-713. https://doi.org/10.1016/j.tourman.2006.04.025

Zaman, U., Aktan, M., Anjam, M., Agrusa, J., Khwaja, M.G., & Farías, P. (2021). Can Post-Vaccine 'Vaxication'Rejuvenate Global Tourism? Nexus between COVID-19 Branded Destination Safety, Travel Shaming, Incentives and the Rise of Vaxication Travel. *Sustainability*, 13(24), 14043. https://doi.org/10.3390/su132414043

Article history: Received: 03.10.2022 Revised: 02.11.2022 Accepted: 19.12.2022 Available online: 30.12.2022