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The impact of the COVID-19 health crisis on tourist evaluation and behavioural intentions in Spain: implications for market segmentation analysis

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ABSTRACT

This research aims to examine consumers' evaluation and expected behaviour changes that may arise in the wake of COVID-19 and to develop a market segmentation. Rooted in the prospect theory, after reviewing health crises, data were collected from a Spanish sample (n = 1,000) relating to changes in consumers' evaluations of tourism products due to COVID-19 and their subsequent behavioural intentions. Findings indicate that conventional tourism may be undergoing a downturn as component of the leisure basket. Beyond a heterogeneous repercussion on tourism types and products, changes in relevance of purchase stages together with a reorganization of consumer planning are expected, with more local and individual holidays, more convenient dates, less use of vendors, more insurance contracting, and lower use of public transport and shared services. Moreover, the study provides evidence of the need of linking health risk and tourist behaviour as another behavioural segmentation base, identifying three different response behaviours. Finally, we outline improvements to hospitality and tourism management to face up to this situation.

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Introduction

Throughout the world tourism industry is currently suffering the effects of the SARS-CoV-2 outbreak. Although previous health-related crises, such as 2003 SARS and 2014 Ebola had an impact, none of those caused so much harm as COVID-19 (OECD, 2020). In this way, COVID-19 will mark a kind of reboot of the tourism activity since this sector is seen as most sensitive to different types of crises (Jin et al., 2019), including health-related ones (Jonas et al., 2011). In this vein, COVID 19 will bring about changes in tourism consumer behaviour that have to be identified and analysed (Sigala, 2020).

It should be noted that Spain has been one of the countries most affected by SARS-CoV-2 (Johns Hopkins University, 2020) and because of the paralysis of the tourism industry. With 83.7 million international tourists in 2019, Spain, together with the United States and France, leads the tourism market with a 6% share of arrivals, second by share of receipts (UNWTO, 2020), and a total expenditure of €92.28 M in 2019 (Tourspain, 2020). With tourism accounting for 12% of the GDP and 50% of international guests, Spain's tourism industry is highly competitive, leading the ranking of 140 countries published by the World Economic Forum (2019).

Extant research on the impact of crises on tourism is dominated by studies focusing on terrorist activities and wars (e.g. Walters et al., 2019), followed by those of natural cataclysm (e.g. Park &

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Reisinger, 2010), environmental disasters (e.g. Park & Reisinger, 2010), economic and financial crises (e.g. Jin et al., 2019), and political instability (e.g. Liu et al., 2016). By contrast, only a minority of studies (e.g. Jonas et al., 2011; Mizrachi & Fuchs, 2016; Promsivapallop & Kannaovakun, 2018) have dealt with health-related crises on tourism activity, with the main focus on confidence at destination (Kozak et al., 2007), risk perceptions (Rittichainuwat & Chakraborty, 2009), and tourist expenditure (Senbeto & Hon, 2020).

In this regard, extant literature fails to consider the impact on preference and product choice and in the end in the changes in consumer behaviour in times of health-related crisis. As an only exception, Kozak et al. (2007) analyse the impact of a health crisis on future consumer behaviour. Thus, it is necessary to have evidence to understand how a health-related crisis influences different aspects and stages of consumer decisions. Furthermore, since it has been suggested that the perception of risk derived from a crisis can materialize differently among tourists (Isaac, 2020) and that it is convenient to identify segments of consumers with different levels of affectation in the face of a crisis (Campiranon & Arcodia, 2008), it is relevant to unravel and define consumer segments according to the impact of health crises.

Then, the objective of this study is to analyse tourist consumer behaviour changes in evaluation and product use due to COVID-19. Specifically, to answer diverse research questions that appear as relevant such as, what relevance will tourism have for the consumer in the face of a health crisis? What consequences can be derived from a health crisis on the role of tourism for consumers? How can the consumption of different tourism products be affected? What changes can be produced in consumption habits? Do consumers have heterogeneous response behaviour? These research questions are assessed by carrying out an empirical study based on a sample of the Spanish general population ($n = 1{,}000$) since it is an ideal setting to study changes in tourist consumer behaviour deriving from COVID-19 based on the Spanish tourism characteristics mentioned above.

This research aims to make several contributions about the effects of COVID-19 on hospitality and tourism. Firstly, as tourism is conceived as a necessity, rather than a luxury (McCabe & Diekmann, 2015) and a determinant of quality-of-life (Uysal et al., 2016), it is worth considering if COVID-19 can modify the role played by tourism in people's lives. Secondly, as perceived risks and fear can modify consumer decision-making (Lerner & Keltner, 2001), and since a global health crisis such as COVID-19 prompts health risk perceptions (Jonas et al., 2011), quarantines, and travel restrictions, we aim to find out how tourist behaviour and consumption of actual hospitality and tourism products can be altered. Thirdly, we aim to provide insights into consumers' adoption of new hospitality and tourism services that are new trends such as virtual technologies (Tussyadiah et al., 2017) or home-sharing (Hossain, 2020). Fourthly, the literature on crises has found it useful to group travellers according to their level of risk perception (Isaac & Velden, 2018); therefore, this work extends segmentation analysis by developing a tourist grouping arising from the heterogeneous behaviour elicited by COVID-19. Finally, we provide indications to improve hospitality and tourism management to adapt to this context.

Literature review

The interrelation between crisis events and tourist behaviour

Crisis events are unexpected disruptive incidents that can affect the tourist in various ways. Their impact has been verified on tourist flows (Jin et al., 2019), perceived risk (Promsivapallop & Kannaovakun, 2018), tourist behaviour (Kozak et al., 2007), tourist expenditure (Senbeto & Hon, 2020), on travel choice (Kozak et al., 2007; Walters et al., 2019) or indirectly through the emotional states of pleasure (Lehto et al., 2007). Risk perceptions and safety concerns have relevant implications for any hospitality or tourist product (Kim et al., 2016). In particular, credible communications are essential to reduce risk perceptions (Seabra et al., 2014), and promotions should improve the feeling of safety among tourists.

Based on the information-processing approach, that emphasizes the understanding of decision processes (Payne & Bettman, 2004), the impact of crises on tourist's perceived risk is a relevant issue since a high level of perceived risk and safety concerns play a central role in tourists' decision-making processes (Kozak et al., 2007). Also, prospect theory holds that individuals become more risk-averse as the loss probabilities increase (Kahneman & Tversky, 1979). Thus, risk perceptions of destination's attributes (i.e. facilitators and inhibitors) increase tourist involvement in the tourist buying process through information seeking before and during the trip. Involvement, as an individual process where tourist search information from both contents and channels, has proven to affect safety concerns in travel (Seabra et al., 2014). Since tourists make their travel decisions based on perceptions and not solely on reality (Rittichainuwat & Chakraborty, 2009), perceptions about risk and uncertainty may even weigh most for the formation of tourist decisions. Then, if a destination is perceived as unsafe, its appeal and any intentions to revisit can be affected, and make tourist change their travel plans (Isaac, 2020; Kozak et al., 2007). Evidence of health-related crisis studies due to Covid-19 supports the negative impact on the intention to travel (Sánchez-Cañizares et al., 2020).

This impact of crises on perceived risk can be affected by the exposure of tourists to media (Seabra et al., 2014), or by factors such as gender (Adam, 2015), geographical origin (Kozak et al., 2007), travel experience (Floyd et al., 2004), and age (Kim et al., 2016). Other factors, however, can reduce the perceived risk of tourism, such as previous experience (Rittichainuwat & Chakraborty, 2009), or security perception, since, under a crisis, safety is the most important travel determinant (Zenker et al., 2019).

Indeed, tourist behaviour experiences far-reaching differentiation due to multiple objective and subjective factors related to perceived risk (Isaac, 2020; Kozak et al., 2007). Thus, increasing attention has been paid to the tourists' segmentation based on the main premise that, among the broad spectrum of tourist behaviours, there are large groups of individuals who share similar characteristics that are vital to understanding their behaviour in crisis events (Campiranon & Arcodia, 2008; Isaac & Velden, 2018). However, researchers do not have addressed how health-related crises could lead to the formation of different groups of tourists, being it a relevant issue to be investigated. In particular, since COVID-19 will bring heterogeneous changes in tourist behaviour and priorities (Sigala, 2020) it is especially relevant to study the different tourist segments that will emerge as a consequence of this pandemic.

Health-related crisis events in hospitality and tourism

Health-related crises are a major concern for both tourists and tourism service providers since they influence tourist behaviour in numerous ways, from their travelling decisions to their activities at the destination before, during, and after the crisis (Senbeto & Hon, 2020). Table 1 contains a review of studies on health-related crises in hospitality and tourism.

In the last two decades, *several health-related crises* such as Ebola, SARS outbreaks, the swine flu pandemic, or bird flu have highlighted the vulnerability and fragility of the tourism industry (Jonas et al., 2011; Mizrachi & Fuchs, 2016; Senbeto & Hon, 2020). For example, Taiwan suffered a 71.54% decrease in arrival numbers in the second quarter of 2003 due to the outbreak of the SARS epidemic (Mao et al., 2010). Moreover, according to Kozak et al. (2007) and Mizrachi and Fuchs (2016), the occurrence of serious infectious diseases in a destination leads to a decrease in tourist arrivals, even in danger-free zones.

Regarding tourist profiles, Lepp and Gibson (2003) assert that women show a higher sensitivity to potential health-related risks than men. Similarly, Promsivapallop and Kannaovakun (2018) detected that young adults with prior visit experience have lower perceptions of health risk than those who have no prior visit experience and familiarity seekers tend to perceive higher levels of health risk than those with more novelty-seeking characteristics. Finally, with respect to risk control, Jonas et al.

Table 1. Selected publications on health-related crisis effects on hospitality and tourism.

Author/s (Year)	Event under study	Setting	Concepts studied	Principal findings
Mizrachi and Fuchs (2016)	Ebola	200 posts from TripAdvisor about 11 African countries	Risk handling	Tourists handle the risk through social media posts when visiting countries with health-related crises.
Mao et al. (2010)	SARS	Inbound arrivals from Japan, Hong Kong, and the USA in Taiwan.	The recovery of tourism industry after an infectious disease outbreak	Differences in recovery patterns according to the tourist's home country.
Jonas et al. (2011)	SARS outbreaks and swine flu epidemic	232 potential tourists in Haifa, Israel	Personal background, travel behaviour, information use, general risk perception, health risk perception	Health risk perception ranks relatively high against other types of risk perception. Environmentally induced factors contribute greater overall perception of health risk than any others.
Rittichainuwat and Chakraborty (2009)	SARS and bird flu in Thailand.	570 questionnaires with inbound leisure travellers to Thailand.	Tourists' risk perception	Perceived disease risk is mitigated by travellers' prior experience with the foreign country.
Senbeto and Hon (2020)	SARS, 2008 recession, and bird flu	Secondary data from tourists visiting Hong Kong	Tourist behaviour expenditure	Tourism expenditure is reduced during and after crises.
Kozak et al. (2007)	SARS outbreaks	1180 travellers visiting Hong Kong	Types of risks, probability of occurrence, media efficacy, probability of changing the travel destination, confidence-building measures for travel	High probability of change in travel plans due to risk in the destination. Risk perceptions and types of confidence-building measures for travel differ between geographical regions.
Promsivapallop and Kannaovakun (2018)	The travel risk dimensions, including health-risk,	323 German university students, intentions to visit Thailand	Dimensions of travel risk perception: health, safety, crime, false practice, mass, communication, and political risk	In health risk, familiarity seekers possess higher risk perceptions than novelty seekers. Respondents who have previous visit experience to Thailand perceived lower health risk levels

(2011) observed that risk associated with environmental aspects beyond the control of traveller behaviour contributes more to the overall perception of risk to traveller health.

The literature review also highlights the importance of a comprehensive *understanding of the behaviour of tourists during different* stages. Senbeto and Hon (2020) found that the nature and phases of crises do not equally influence tourists in terms of age, the purpose of visit, and expenditure patterns in tourists.

Consequences of COVID-19 in Spanish tourism industry

In response to COVID-19 the Spanish National Government activated a state of alarm and emergency which has been prolonged for 99 days, with the imposition of a strict lockdown that has closed frontiers, limited inland movements, and forbidden tourism travel (Spanish Government, 2020). The number of international tourist arrivals to Spain in April 2020 was zero (UNWTO, 2020), and the forecasted revenue losses in the tourism industry during the lockdown reaches about €43.46 billion (Statista, 2020). Specifically, hotel reservations fell to a historical 0% in April and 1% in May 2020 (Spanish National Statistics Institute, 2020).

Regarding transport, it is estimated that there will have been a 55% reduction in air traffic in Spain by the end of 2020, and a loss of 114 million passengers (IATA, 2020). The air sector has resumed its flights immersed in a price war (La Vanguardia, 2020). The reduction in air traffic, closely linked to tourism, has generated air revenue losses estimated at €15,000 M in Spain (ALA, 2020). By contrast, trains have increased their prices after the resumption of the service (El País, 2020), once the lockdown had been eased through a progressive de-escalation process (Spanish Health Ministry, 2020).

It should also be said that Spain offers travellers different types of tourism according to trip goals (e.g. leisure tourism, cultural tourism, sports tourism) (Albaladejo & González-Martínez, 2019), and destinations (e.g. coast tourism, urban tourism, rural tourism) (Rodríguez-Pérez de Arenaza et al., 2019). As it has happened in previous crisis events in Spain, COVID-19 is expected to impact differently on the diverse types of tourism. Thus, for example, Spain's mass tourism destinations, mainly linked to holiday tourism in urban and coastal destinations, have been recognized as the most affected types of tourism in previous crises (cf. Garau-Vadell et al., 2018).

Methodology

Data collection and sample

A structured, self-administered online questionnaire method and convenience sampling technique has been used to obtain quantitative data. This research method is considered useful to reach a large target sample (Isaac, 2020). The questions and statements in the questionnaire were extracted and adapted from English sources, translated into Spanish for the collection of data from a Spanish sample, and then translated back into English. No problems were encountered during the double translation process or in a prior content analysis. The questionnaire was developed with Google Forms and responses were further analysed with SPSS. Data collection was carried out from the period of 30 April – 12 May 2020. During this period, 1,000 valid responses were obtained. The sample consists of Spanish residents over 18 years old. Following previous articles (e.g. Isaac, 2020), the survey was conducted through various channels (Facebook, LinkedIn, Whatsapp, email), and also forwarded by the individuals that were primary recipients, i.e. following the so-called snowball strategy.

Measurement

The questionnaire is divided into four sections.[1] The first section aims to obtain information about the role of tourism in people's lives and the effect profile derived from COVID-19. To detect if tourism is essential in people's lives, if it is part of their well-being, or if it is considered as a leisure activity, is relevant when studying travel behaviour since this could influence tourist behaviour (Uysal et al., 2016). Furthermore, understanding who will be the most affected is relevant, since each segment of consumers has a relevant share within the tourism market.

The second section collects information about the range of the effect and the expected impact on products and prices, including alternatives such as virtual technologies. Using established classifications of types of tourism by destination and by reason for the trip (Goeldner & Ritchie, 2012), products that comprise the tourist offer from the customer's point of view (Medlik & Middleton, 1973), and using virtual technologies according to the different destination 'environments' (Tussyadiah et al., 2017), we address these issues. A weighted index was created by scoring the 5 levels of response (1 = none to 5 = much) and considering the total sample of respondents. Considering s as the sample size, the index can be calculated as:

$$\sum_{1}^{5} \frac{I_i}{5 \times s}$$

The third section gathers information about the changes in tourist behaviour patterns, i.e. indicate

future behaviour and future tourism after COVID-19. Accordingly, several questions considering the possible changes in tourist behaviour were included in the questionnaire. These questions were created/adapted based on previous work that has investigated changes in tourism consumer behaviour when facing various types of crisis events. Some example questions that arise are about travelling more locally or internationally (Reisinger & Mavondo, 2005), purchasing more or less travel insurance (Sarman et al., 2020), travelling more individually or collectively (Meng, 2010), or using home-sharing services more or less frequently (Hossain, 2020).

Finally, information on socio-demographic factors were gathered, including gender, age, educational level, and home province (in Spain), since previous literature has shown that personal factors influence tourist behaviour (Isaac, 2020).

Demographic profile of the respondents

Of the 1,000 respondents who participated in this study, considering gender, 44.3% were male (n = 443) and 55.7% were female (n = 557). Most of the participants were aged between 41 and 54 years old (38.3%) closely followed by those between 25–40 years old (37.2%). The other categories, 55–65 years old (13.6%), 18–24 (5.9%), and 65 or more (5.0%) complete the sample. Regarding educational level, the majority of respondents (68.7%) held a university degree, while 25.7% had completed secondary studies and 5.6% primary studies. Finally, looking at the home province, our study encompasses 37 out of the 52 provinces of Spain.

Results

The importance of tourism and the effect profile derived from COVID-19

Concerning the *importance of tourism in people's lives*, only a minority of the respondents, 4.2% and 4.6% considered that tourism was not essential or is not part of their well-being respectively. On the contrary, 59.5% consider that tourism is quite or very essential in their lives (37.5% quite and 22.0% very) and 53.1% conceive tourism as part of its well-being (34.8% quite and 18.3% very). Besides, it is remarkable that more than half of respondents (51.6%) consider that after COVID-19 *traveling as a leisure activity* will be less highly considered, while 13.2% thinks it will be equally well considered, 9.7% that it will be higher, and a quarter (25.5%) that it will depend on the chosen destination. Our findings also reveal that 41.3% of respondents consider that the elderly will be the most affected group with regard to travel after COVID-19, followed by adults (30.2%), and, to a lesser extent, young people (15.5%) and children (13.0%).

Tourism types by the destination	Expected impact
Urban tourism	79.26
Coast tourism	78.26
Rural tourism	56.52
Mountain tourism	54.00

Figure 1. Expected negative impact on consumption of tourism types by destination (0–100).

Scope of the impact of COVID-19 on tourism types and products

Regarding the effect on *tourism types by destination*, Figure 1 shows that the average expected impact on the four destinations is 67 over 100. By disaggregating this according to type, we find that urban tourism is expected to be the most affected (79.26), closely followed by coastal tourism with 78.26.

To further understand the impact of COVID-19 on tourism, we also asked respondents for their perception of how *tourism types according to the reason for the trip* will be affected. In this case, it can be seen that leisure tourism will be the most affected (74.20) and that nature tourism will be the least (32.90), while the other four types of tourism are very close to the average effect (54.00) (see Figure 2).

Respondents were also consulted whether they believe that COVID-19 will influence the *prices of different tourism products* (see Figure 3). The results obtained reveal that of the four categories of hospitality and tourism products that make up the tourist offer, a greater increase in the price of transportation (22.65%), and food (22.20%) is foreseen than for the activities at the destination or the accommodation.

Impact on the adoption of virtual technologies

Another issue that appears to be relevant when studying the impact of COVID-19 on tourism has to do with *virtual technologies*. It can be seen that an increase, albeit modest in the use of these technologies is expected, (see Figure 4). The average increase is 51, which does not differ too much according to the type of 'environment'. Although it is expected that their use will grow mostly in places of mass tourism (53.24), similar growth is expected in places of cultural content (52.81) and far-off destinations (50.97).

Additionally, results show a positive relationship between expected price increases and the use of virtual technologies (prices and places of massive visit ($r = .071$, $p = .025$), prices and places of cultural content ($r = .097$; $p = .002$), prices and far-off destinations ($r = .099$, $p = .002$), and prices and vulnerable natural environments ($r = .082$; $p = 0.009$)). In other words, the greater the expected price increase the greater the tendency to use virtual technologies.

Changes in tourist behaviour patterns

An immediate issue to be considered concerns the changes in the *geographical distance of travel* as a result of COVID-19. In this sense, 70.0% of those surveyed expressed their desire to travel more domestically, while 29.1% plan to continue travelling as before and only a marginal 1% express their desire to travel more internationally. Regarding *traveling individually or collectively*, findings

Tourism types by trip' goals	Expected impact
Leisure tourism	74.20
Cultural tourism	56.80
Sports tourism	55.95
Health tourism	52.95
Business tourism	50.20
Nature tourism	32.90

Figure 2. Expected negative impact on consumption of tourism types by trip' goals (0–100).

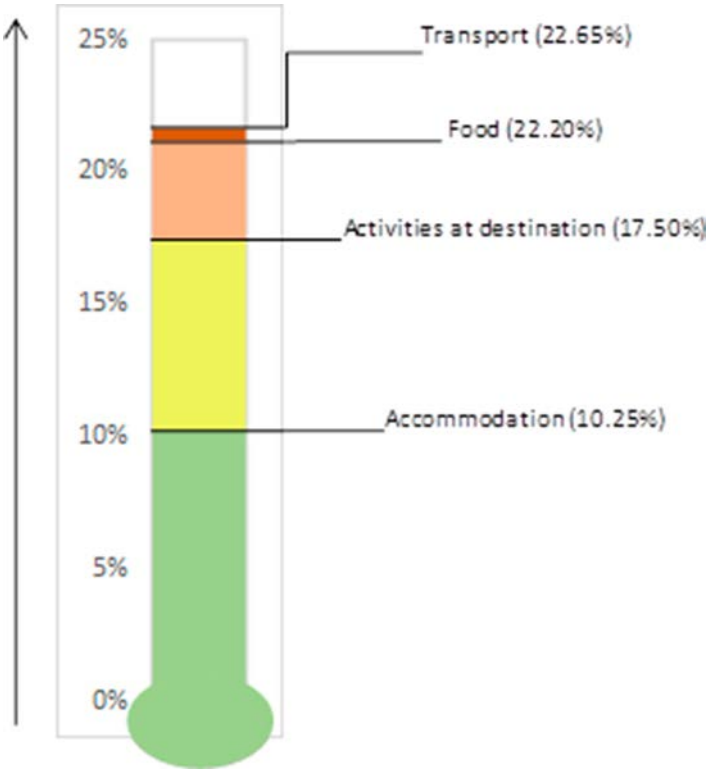
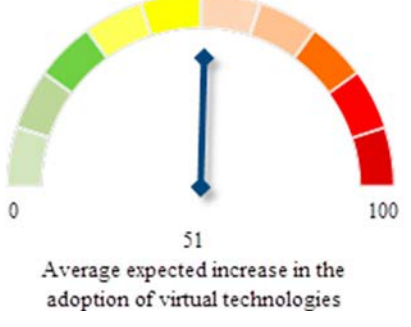


Figure 3. The expected increase in the prices of travel-related expenses (%).

reveal that 23.1% of people increase their interest in travelling individually, with this trend being somewhat greater among women (25.0%) than men (20.8%). Furthermore, regarding the organization of the trip, most respondents (68.7%) opt to continue using *tourist intermediaries* as before, while 19.8% will reduce their use and 11.5% will increase it.

Additionally, when asked about *contracting insurance*, the majority of those surveyed (47.7%) said that they would continue to contract the same insurance as before COVID-19, although it should be borne in mind that 34.4% of people said that they would contract greater insurance, as opposed to 17.9% who thought that they would contract less insurance. It should also be noted that the tendency to contract more insurance is greater among women (38.0%) than for men (31.6%).



"Environments" for the adoption of virtual technologies	Expected impact
Places of mass visits	53.24
Places of cultural content	52.81
Far-off destinations	50.97
Vulnerable natural environments	46.39

Figure 4. The expected increase in the adoption of virtual technologies (0–100).

In terms of *length of holidays*, although the majority of respondent's holidays (71.4%) will be of the same length as before, a significant number (27.0%) plan to shorten their vacations. Furthermore, 38.3% of respondents will choose to modify their *usual travel dates*. It should be noted that once again we found differences according to the sex of the respondents. In this case, 42.5% of women would opt for a change of dates, compared to 33.0% of men. These results reflect that there is a homogeneous pattern based on age and sex among those who would consider changing their travelling dates ($\chi^2 = 11.904$; $p = .018$) (see Table 2).

Moreover, respondents were asked about changes in their intended use of home-sharing. The majority (54.5%) stated that they will use shared housing establishments to a lesser extent, in contrast to only 1.8% who say they will use them more and 43.7% who say they will use them the same as before COVID-19. Intentions to use home-sharing is related to sex (see Table 3). There is also a positive relationship between travel intentions according to geographical distance and the intention to use home-sharing ($\chi^2 = 73.386$; $p = .000$). These findings illustrate that there is a homogeneous pattern based on gender and travel intentions according to geographical distance with intentions to use home-sharing.

To continue to study in-depth the changes in consumer's decision-making, we compared the *importance of travel planning stages before and after* COVID-19 (results are shown in Table 4). It can be seen that organization and preparation stage gain relevance in consumers' mind, together with activities and services at destination, losing importance experiences at destination (see Figure 5).

Finally, analysing *how the use of transport will change in tourist trips*, we observe differences between the uses of each means of transport, before and after COVID-19 (see *t*-statistic in Table 5). Car use will increase substantially; meanwhile, almost all rest public transport such as airplanes, trains, buses, and car-sharing will decrease (see Figure 6).

Consumer's propensity to change due to COVID-19: A segmentation analysis

Based on behavioural responses to COVID-19, and considering consumers' heterogeneous judgment of the risks and consequences (Isaac & Velden, 2018), segmentation analysis was carried out. First, a hierarchical cluster using the Ward method was made, where the suitability of obtaining a solution formed by three clusters was determined. Then, for the final composition of the groups, a non-hierarchical cluster analysis (K-means) was applied. Furthermore, a discriminant analysis was carried out for validation purposes, which showed that 96.8% of the cases have been correctly classified (Hair et al., 2010). For the analysis, we utilized seven variables to characterize these groups of consumers: (1) travel intentions according to geographical distance, (2) travel group, (3) length of vacation, (4) expected price increase, (5) expected increase in the use of virtual technologies, (6) impact of COVID-19 according to the destination, and (7) impact of COVID-19 according trip' goals.

In what follows the three clusters are described according to the interpretation of the variables used to determine homogeneous groups of consumers.

Table 2. Changes in usual travel dates according to sex and age (%).

Age	I would modify my usual travel date		I would travel on the usual date		
	Male	Female	Male	Female	Total
18–24	6.8%	10.1%	2.7%	5.3%	5.9%
25–40	28.8%	42.2%	37.0%	37.5%	37.2%
41–54	45.9%	30.0%	39.4%	40.0%	38.3%
55–65	14.3%	13.5%	14.1%	12.8%	13.6%
>65	4.2%	4.2%	6.8%	4.4%	5.0%
Total sample	146	237	297	320	1,000
	$\chi^2 = 11.904$; $p = .018$		$\chi^2 = 4.388$; $p = .356$		$\chi^2 = 9.932$; $p = .042$

Table 3. Relationship between consumer profile and intention to use home-sharing (%).

	I will use shared housing more	I will use it the same as before	I will use shared housing less	Total
Male	44.4	51.1	59.6	44.3
Female	55.6	48.9	40.4	55.7
Sex		$\chi^2 = 6.575$; $p = .037$		
More locally	16.6	56.1	81.0	70.0
The same as before	83.4	43.3	17.8	29.1
More internationally	0.0	0.6	1.2	0.9
Geographical distance		$\chi^2 = 73.386$; $p = .000$		

The true believers

This segment accounts for 29.8% of consumers. This type of consumer expects a lower impact of COVID-19 on tourism, and therefore expects to continue travelling to the same destinations they have planned (59.4%) and with their habitual travel companions (79.9%). Although they expect an average increase in the prices of tourist services in general, they are not likely to shorten their vacation period (71.1%). Moreover, this group of consumers considers that there will be a moderate increase in the use of virtual technologies for tourism purposes. Compared with other segments, this is the most balanced in terms of gender, being composed of 48.7% men and 51.3% women. This group includes the majority of people between 18 and 24 years old (52%) and a good proportion of people between 25 and 40 (31%) and between 41 and 54 (30.3%). Consumers in this group are optimistic people and can be called *true believers*, as they do not intend to make changes to their traditional tourist routines, and therefore will continue with their normal travel planning.

The cautious travellers

This segment encompasses 30.9% of respondents. More local trips (68.7%) but of equal length (72.2%) and with their traditional travel groups (75.1%) are preferred by this segment of consumers. This group of tourists expects a modest impact on tourist destinations as a result of COVID-19, and in turn considers that there will be a moderate increase in the prices of accommodation, transport, food, and tourist activities. Furthermore, this group considers that although the impact of virtual technologies will increase, this will not be exaggerated. If we analyse the composition of the group, this is mostly composed of females (59.9%) and encompasses a good proportion of people between 25 and 40 (31.7%) and between 41 and 54 years of age (29.2%). This group of consumers could be referred to as *cautious travellers*, since although they intend to continue with certain traditional patterns of travel (e.g. travelling with their traditional travel groups); they intend to opt for more local holidays, as they anticipate an impact on various geographical destinations.

The prophets of doom

The third segment is the largest in size (39.3%) and includes consumers who mostly prefer more local (69.1%), more individual (51.4%), and shorter (52.7%) trips. All of which because they predict a high impact of COVID-19 on all tourist destinations, which in turn leads them to forecast a high increase in the prices of the various tourist services and even a high increase in virtual technologies to replace

Table 4. Changes in the importance of phases of a tourist trip (%).

		Before COVID-19	After COVID-19	Δ%	*t*	*p*
How important were/will be for you the following issues of a tourist trip?	Trip organization and preparation	23.02	25.95	+12.73	15.659	<.001
	Journey and accommodation	27.06	27.01	−0.2	−11.259	<.001
	Activities and services at the destination	21.86	22.72	+3.93	9.906	<.001
	Experiences	28.06	24.32	−13.32	−2.564	< .01

Figure 5. Changes in the importance of phases of a tourist trip (%).

Table 5. Changes in transport mean use (%).

		Before COVID-19	After COVID-19	Δ%	*t*	*p*
How often did/will you use the following means of transport?	Car	28.03	31.35	+11.84	5.375	< .001
	Airplane	20.44	18.94	−7.34	−15.452	< .001
	Train/Metro	16.04	15.41	−3.92	−10.400	< .001
	Bus	14.87	13.67	−8.04	−12.762	< .001
	Ship	10.32	10.76	+4.25	+3.356	< .001
	Car-sharing	10.30	9.86	−4.20	−7.374	< .001

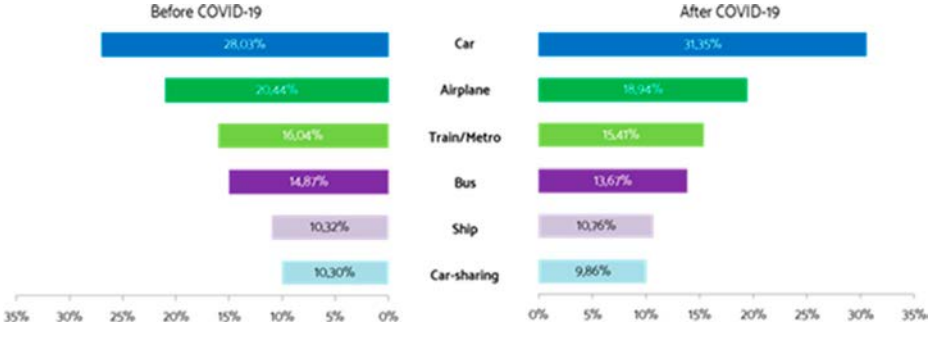


Figure 6. Expected changes in transport mean use (%).

face-to-face tourism. This group is made up of 55.7% women and 44.3% men and the age range distribution is quite homogeneous, but it is notable for including most people between 55 and 65 years (53.4%). This type of tourist has a negative outlook, intends to change several of their traditional tourist routines, opting for more individual, more local, and shorter trips and predicts that COVID-19 will have a severe impact on tourist destinations in conjunction with a high increase in prices. Therefore, this group could be called the *prophets of doom*.

Conclusions and discussion

Summary and discussion of findings

The findings of this study show that despite the appearance of coronavirus, tourism is seen as essential for the majority of people and part of their well-being. Previous literature (e.g. McCabe & Diekmann, 2015; Uysal et al., 2016) have demonstrated that tourism contributes to the quality of life and the well-being of people, however, this study states that despite the global health crisis, tourism continues to be important in people's lives. Nevertheless, it should be noted that most people perceive tourism less and less as a leisure activity. This implies changes in the leisure basket. In this context,

our results warn that the elderly will be the most affected with regard to travelling again, which is not surprising given that they have been one of the groups most affected healthwise by coronavirus.

Thereafter, by analysing the scope of the impact of COVID-19 on tourism, our findings provide evidence that destinations with open spaces and less mass tourism, such as mountain and rural tourism may increase in demand, in contrast to urban and coast tourism (Rodríguez-Pérez de Arenaza et al., 2019). Moreover, our results demonstrate that holiday tourism is predicted to be the most affected, while it is thought that specialized tourism (e.g. health and nature tourism) and affinity tourism (e.g. sports and business tourism) will be less affected. Furthermore, people consider that all tourist products will face a price increase after COVID-19. Accordingly, our results are consistent with previous literature that states that normally in pre- and post-crisis periods increases occur in the price of tourist services (Jiménez-Guerrero et al., 2019). The increasing of costs, fall in demand, and also possible limits in supply are possible arguments that may explain consumers' expectations regarding prices. In fact, this crisis is providing examples of price cuts in situations of industry overcapacity, such as the case of air transport, where prices have fallen sharply (La Vanguardia, 2020). However, opposite evidences are found in the train transport (El Pais, 2020). Our findings also anticipate a general increase in the use of virtual technologies, which will make up for some of the reduction in presential tourism, thereby hastening the expected adoption of this type of technology.

Regarding changes in tourist behaviour patterns, while segmentation analysis yields three segments, overall results also show certain prevailing trends, such as a greater propensity for more local and individual travels. If anything, people are inclined to contract more insurance. In such a way, our results are consistent with previous analyses (e.g. Sarman et al., 2020), that identify health-related crisis events as one of the drivers for increased travel insurance purchase. Furthermore, our results, as well as confirming that the car is the preferred means of transport for tourists, anticipate its increased use, in contrast to a reduced use of public transport (e.g. airplane, bus), which may lead to a stagnation in demand for public transport services. Our findings also suggest that people will use fewer tourist intermediaries, giving more relevance to pre-purchase stages regarding the organization and planning of the trip at the expenses of experiences at destination. Furthermore, our results allow us to say that the COVID-19 is acting as a brake on the intense growth of home- and car-sharing services, which could lead to these types of services having to be rethought or to undergo innovation to meet new consumer's safety needs. Furthermore, our results show that in overall, women tourists foresee to make more changes in their travel routines than men, consistent with previous literature (Lepp & Gibson, 2003).

Finally, the study contributes to the identification of three segments of tourists with clearly different decision-making behaviours as a result of COVID-19. One group is made up of tourists who do not intend to make too many changes in their routines and therefore continue with their normal travel planning, these are the 'true believers'. Secondly, a group of 'cautious travellers', who choose to change certain traditional travel patterns. The third group could be named as 'prophets of doom' since they choose to change the vast majority of their normal tourist routines because they foresee a high impact of the COVID-19 on all aspects of tourism. This behavioural segmentation could help decision-makers to adopt more effective hospitality and tourism decisions (Isaac, 2020).

Implications

This study offers several theoretical and managerial implications. From a theoretical point of view, we identify the benefits of re-evaluating the activities considered as leisure, as well as the renewed relevance of alternative evaluation phase and choice criteria by addressing various issues of concern, such as the role of information, planning and the pre-trip stage.

From the managerial point of view, based on the results of this study and on the review of the literature on crisis event management, this work addresses some guidelines for appropriate

marketing recovery plans. This means forging a link between consumer decision-making and marketing management. Appropriate product management, should not resort to excessive price decreases or increases, it should provide timely and trusty information, and a promotional strategy oriented to ensure a sensation of safety. Accordingly, the hospitality industry should incorporate signals to their customers that maximize the perception of safety. Moreover, it is of particular relevance that destination management organizations help to support recovery initiatives for the hospitality industry, not be disjointed from the local cultural context.

It is also necessary to redefine the range of products on offer, especially for the third age sector, and opportunities are emerging for virtual leisure alternatives, in particular, in relation to places that are visited en masse, such as museums or major tourist destinations. In relation to insurance and coverage management companies, these can find business opportunities in renewed demands from potential customers. Likewise, the restaurant industry may find an increased predisposition to adopt new payment services that avoid cash, such as apps or restaurant coupons. Finally, the sharing economy could consider devising new quality signals to reduce perceived risks and fears.

Limitations and future research lines

Carried out in the assimilation phase of the crisis, this study is not exempt from certain limitations. Further evidence from longer research periods are needed to detect post consumption behaviour and fully assess the impact of COVID-19. Another avenue of research is the reassessment of the drivers of customer satisfaction and loyalty. Moreover, although this study raises some managerial guidelines, it is necessary to explain how quality signals in hospitality can incorporate relevant information on health conditions. Finally, an emerging debate that deserves attention is about the duration of the COVID-19 effects, between those who consider a simple short-term effect (Zopiatis et al., 2019), even when they have catastrophic effects (Rittichainuwat et al., 2018), and those who posit a long-term effect that will change a generation's behaviour (e.g. Malmendier & Nagel, 2011).

Note

1. The complete survey instrument can be obtained by accessing the supplementary material of this study.

Disclosure statement

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