

Effects of integrated marketing communication for sustainability and ecological knowledge: A cross-cultural approach in hospitality

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Abstract

Sustainability challenges have been recognised as research priorities in marketing and services. This work seeks to observe how Integrated Marketing Communications (IMC) for sustainability affects satisfaction and loyalty, both directly and indirectly, i.e., through the ecological knowledge of the guest. In addition, it attempts to analyse whether the sequence of modelled effects changes according to the country of origin, retaining two different nation/culture contexts: Spain and Ukraine. To test the hypotheses of the proposed theoretical model, the PLS-SEM technique was used based on 611 responses from consumers staying in hotels (254 in Ukraine and 357 in Spain). The results reveal IMC for sustainability exerts a positive impact on guest ecological knowledge, satisfaction, and loyalty. Finally, the country of origin of hotel guests and the cultural traits associated with it moderate the direct effects of IMC, ecological knowledge, and satisfaction on loyalty. These findings lead to important implications for the management of tourism companies.

Keywords: IMC for sustainability, ecological knowledge, satisfaction, loyalty, hospitality industry, cross-cultural analysis

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1. Introduction

Sustainability in tourism has become an increasingly pursued research goal (Ostrom *et al.*, 2021), but understanding how tourism businesses can influence their customers to be active partners in reducing consumption of resources remains unresolved. Some studies point to the substantial role of company communication (Khoo-Lattimore and Prideaux, 2013; Kapoor *et al.*, 2021). For example, in the context of sustainable tourism, it is noted that tourists feel the need to receive more information about climate change issues (Becken, 2007); however, there also exist contrasting conclusions that sustainability communications from the company are fundamentally ineffective, since customers do not easily process this information (Tölkes, 2020). Therefore, there is evidence of a notable gap between the level of ecological knowledge of the guests and how the sustainable practices implemented by the companies, e.g., hotels (Teng *et al.*, 2018), are communicated, confirming the need for further research on beliefs, attitudes, and behaviours related to sustainability in tourism (Tölkes, 2020).

From a strategic point of view, the communication of environmental practices takes different forms, from the simple provision of brief and general information, to placing this communication at the core of brand positioning. This work applies the approach of Integrated Marketing Communication (hereinafter, IMC), which suggests greater coordination and synergy of all marketing communication tools (Šerić *et al.*, 2015; Kitchen, 2017). Furthermore, and more, there is an emerging and specific line of research that focuses the IMC on sustainability (Bormane, 2018; Alevizou *et al.*, 2019; Bordian *et al.*, 2022). In this direction, contributions based on clients' perceptions about IMC in a sustainable context, and the identification of its effects are encouraged and can represent a crucial step towards establishing its content and scope (Bordian and Gil-Saura, 2021; Bordian *et al.*, 2022).

On the other hand, ecological knowledge is the information that individuals own about the environment and ecology (Arcury and Johnson, 1987) which is considered a prerequisite for responsible behaviour, and a fundamental component of environmental education (Wang *et al.*, 2018; Han, 2021). In addition, it is a determining factor in forming the client's intention to visit hotels that are committed to their surrounding environments (Teng *et al.*, 2018). However, although guest ecological knowledge is considered crucial for the success of the positioning of sustainable hotels, as far as we are aware, there is still little evidence to help explain its nature, and this gap demands new contributions that would make it possible to move forward with a clearer definition (Kollmuss and Agyeman, 2002; Bordian *et al.*, 2022). Therefore, this work aims to advance the knowledge of both IMC for sustainability and the level of guest ecological knowledge, and shed light on how both concepts interact, with the understanding that both represent a research priority for the tourism industry (Teng *et al.*, 2018; Bordian *et al.*, 2022).

In addition, satisfaction and loyalty represent the result of business performance. In general, both are recognised as essential links between company activity and customer behaviour (Grissemann and Stokburger-Sauer, 2012). Consequently, achieving satisfaction and loyalty is crucial for the sustainability of tourism (Bordian and Gil-Saura, 2021). A better understanding of tourist satisfaction is a step prior to establishing relationships that lead to future behaviours, represented by the intention to visit the hotel and/or share positive word of mouth about the establishment (Oviedo-García *et al.*, 2017). For this reason, knowing the most effective way to boost satisfaction, and achieve a deeper and more lasting loyalty becomes a priority research direction (Gautam, 2020; Marketing Science Institute, 2020; Guyader *et al.*, 2022). However, studies on customer satisfaction and loyalty, in a sustainable context, have been surprisingly overlooked (Chan and Baum, 2007a; 2007b; Oviedo-García *et al.*, 2017; Moise *et al.*, 2018; Guyader *et al.*, 2022). Therefore, this study intends to investigate possible drivers of satisfaction and loyalty, tracing a route that begins with IMC for sustainability and guest ecological knowledge, and responds to the aforementioned research demands.

Finally, there is evidence in the literature of the importance of observing tourists whilst taking into consideration their country of origin (Šerić and Gil-Saura, 2011; Huang and Crofts, 2019; He and Filimonau, 2020), given that the dominant cultural values of a society (Hofstede, 2011) can change according to the nation, and require different strategies in companies and responses by the market. This work ultimately aims to examine whether the relationships between the guest's perceptions regarding IMC for sustainability, ecological knowledge, satisfaction and loyalty, are modified according to the country of origin, offering a cross-cultural vision through information concerning guests staying in hotels in two countries characterised by vastly diverse cultural traditions: Ukraine and Spain. These two countries were observed to have significant differences in sustainable tourism development, geographical location, religion (Catholic vs Orthodox) (World Values Survey, 2020), and Hofstede's culture dimensions such as individualism versus collectivism, long-term versus short-term orientation, power distance index, and indulgence versus restraint indexes (Hofstede Insights, 2021). In this way, we intend to breach the gap arising from the scarcity of intercultural comparisons in the literature on tourism (Li, 2014) and sustainability (Lorenzo-Romero *et al.*, 2019; He and Filimonau, 2020).

Following this introduction, the literature review covers the revision of IMC, ecological knowledge, satisfaction, and loyalty concepts. Moreover, it presents relationships between variables and hypotheses followed by a causal model. The next section, methodology, explains the instrument and describes the sample. The data for this study was collected through two quantitative market investigations of 611 hotel guests conducted in Spain and Ukraine by applying a self-administrated questionnaire. Additionally, the analysis of results section is divided into two subsections where measurement and structural models are analysed. A PLS-SEM technique was used to test the collected data. Finally, the conclusions contain the main theoretical contributions and managerial implication suggestions, limitations and future research lines.

2. Literature review

2.1. Consumer perception of IMC for sustainability

Effective communication about sustainable practices is essential to create a favourable attitude in consumers and drive positive behaviours towards green hotels (Kapoor *et al.*, 2021); otherwise, these practices will go unnoticed. According to Londoño and Hernández-Maskivker (2016), consumers generally lack environmental knowledge and demonstrate little ability to recognise the sustainable practices implemented by hotels. Tölkes (2018) shows that 42% of German tourists believe that these practices should be better communicated and more visible. In this way, communication about sustainability becomes essential to convey clear messages about a hotel's ecological practices, since it makes guests conscious of the most sustainable travel options available to them and informs them about how these offers meet their expectations and the sustainability criteria (Tölkes, 2020; Kapoor *et al.*, 2021).

The concept of IMC is considered as the coordination of advertising, event marketing, promotions, and other communication tools to transmit a consistent "one voice" message through all communication channels (Lee and Park, 2007; Šerić and Gil-Saura, 2012). According to Šerić *et al.* (2015), IMC could be an effective strategy in the hotel industry to encourage guest satisfaction.

Communication consistency encompasses both the consistency of the common visual, verbal, and audible elements of the message, as well as the consistency of the common meaning and content of the brand, across different media. Given the need to focus communication within a sustainable context, some authors approach IMC as a strategy to communicate the environmental sustainability of the company (Bormane, 2018; Alevizou *et al.*, 2019; Bordian *et al.*, 2022). Therefore, IMC for sustainability

aims to increase the consumption value of a sustainable product or service through communication between the company and market participants across various channels (Bormane, 2018).

2.2. Ecological knowledge

In research on consumer behaviour, knowledge is considered a key factor that influences all phases of decision-making processes, and the way in which consumers evaluate products and services in the market (Ostergaard and Bode, 2016). Ecological knowledge refers to the ability of an individual to identify or recognise ecological symbols, concepts, and behaviours related to pro-environmental products and services (Ahmad and Thyagaraj, 2015). Consequently, ecological knowledge is understood as the information that individuals possess about the environment, ecology, and the influences of human actions on the ecosystem (Arcury and Johnson, 1987).

An analysis of previous studies in tourism reported that a great part of empirical research aimed at investigating the relationship between ecological knowledge and customers' pro-environmental behaviour (e.g., Hu *et al.*, 2013; Cheng and Wu, 2015), mostly in terms of intention to stay or visit (e.g., Hsiao 2016; Teng *et al.*, 2018; Wang *et al.*, 2018; Gautam, 2020). However, the antecedents that might affect ecological knowledge were rarely considered. Moreover, some studies looked at developing a low-carbon knowledge scale (e.g., Horng *et al.*, 2013) which has recently been adapted as an ecological knowledge scale (e.g., Teng *et al.*, 2018). Most studies that examined ecological knowledge (e.g., Hu *et al.*, 2013; Cheng and Wu, 2015; Hsiao 2016; Teng *et al.*, 2018) were carried out in the Asia region, while only a few of them considered other country contexts and even fewer conducted cross-cultural comparisons (e.g., He and Filimonau, 2020).

More specifically, studies of responsible ecological behaviour have been based primarily on the belief that this knowledge is linked to attitudes, and attitudes lead to behaviour. This view proposes that a person with knowledge about the environment and its issues is more aware and more determined to act responsibly towards the environment (Hungerford and Volk, 1990). Along these lines, Chen and Tung (2014) highlight that ecological knowledge plays a fundamental role in the environmental decisions of hotel guests. Furthermore, according to Lee *et al.* (2010), ecotourism products attract more environmentally conscious visitors. However, it is also stated that, in general, guests lack environmental knowledge and often fail to recognise the sustainable practices implemented by hotels (Londoño and Hernández-Maskivker, 2016).

At the same time, when companies need to improve the effectiveness of their sustainability communication, the importance of increasing the clients' ecological knowledge so that they recognise the companies' efforts to adopt practices that are respectful towards the environment is brought into relief (Teng *et al.*, 2018). It is accepted that IMC provides benefits, e.g., increased consumer awareness of the brand, profitability, etc. (Tafesse and Kitchen, 2017; Pisciocchio and Toaldo, 2020), and along these lines it is stated that IMC for sustainability allows consumers to be more aware of the availability of sustainable travel products, provides information on how these offers meet their needs and fulfil sustainability criteria, and encourages sustainable purchasing (Tölkes, 2020). Therefore, clear, and consistent communication about ecological practices can help increase the ecological awareness of guests and help them to develop a positive attitude towards the hotel (Martínez, 2015; Wang *et al.*, 2018; Preziosi *et al.*, 2019). In this way, sustainability communication on the part of the hotel could be expected to serve as a decisive factor to improve the ecological knowledge of the guests. Based on these reflections, the first hypothesis is established:

H₁: *IMC for sustainability positively affects guest ecological knowledge.*

2.3. *Satisfaction and Loyalty*

One of the main theoretical foundations of research on satisfaction is the disconfirmation paradigm that proposes satisfaction as a result of comparing customer expectations with performance (Oliver, 1977). In general, satisfaction is recognised as the vital link between company activities and consumer behaviour (Grissmann and Stokburger-Sauer, 2012), and is considered a key instrument when evaluating the final result of implementation of IMC by the company (Reid, 2005). It is highlighted that consistent and coherent communication, transmitted through different channels, is particularly favourable and beneficial for guest satisfaction (Reid, 2005; Šerić *et al.*, 2015; Porcu *et al.*, 2019; Bordian *et al.*, 2022), and to earn their loyalty. By integrating marketing communications, companies would be able to reinforce satisfaction, and thereby increase the probability of a repeat visit (Šerić *et al.*, 2014). The ultimate purpose of IMC should be to gain more satisfied and loyal customers, in line with the research tradition of Keller (2009). Consequently, the second and third research hypotheses are proposed:

H₂: *IMC for sustainability significantly affects guest satisfaction.*

H₃: *IMC for sustainability significantly affects guest loyalty.*

In recent times, the interest of academics in studying the concept of satisfaction has increased, connecting it with environmentally friendly practices in the hotel industry sector (e.g., Berezan *et al.*, 2013; Prud'homme and Raymond, 2013; Martínez, 2015; Wang *et al.*, 2018; Moise *et al.*, 2021), and defining chain effects that lead from ecological knowledge to guest loyalty (Bordian and Gil-Saura, 2021). According to the conclusions of Berezan *et al.* (2013) and Martínez and Rodríguez del Bosque (2013), customers are likely to be more satisfied if the company develops socially and environmentally responsible initiatives. Moreover, clients who believe the hotel implements sustainability practices tend to increase their intention to book the hotel (Franco *et al.*, 2021) and return intention (Berezan *et al.*, 2013). However, customers who lack ecological knowledge are not able to appreciate these types of initiatives (Teng *et al.*, 2018; Guyader *et al.*, 2022), nor do they experience satisfaction with their stay at the hotel. Following the knowledge-attitude-behaviour model, previous research shows that a higher level of customer environmental concern corresponds to the development of positive behavioural intentions towards “green” hotels (Kollmuss and Agyeman, 2002; Verma *et al.*, 2019), and, in turn, that behaviour based on pro-environmental values leads to satisfaction (Schmitt *et al.*, 2018; Guyader *et al.*, 2022). In view of all the above, the following working hypotheses are suggested:

H₄: *The ecological knowledge of the guest positively affects their satisfaction.*

H₅: *The ecological knowledge of the guest positively affects their loyalty.*

H₆: *The satisfaction of the guest positively affects their loyalty.*

2.4. *Tourism, sustainability, and culture in Spain and Ukraine*

To advance the emerging research related to IMC for sustainability, this work adopts a cross-cultural viewpoint. A comparative approach can allow findings to develop knowledge of the nature and scope of this evolving concept, and its consequences. The study of a nation/culture, a context, or a segment of consumers in relative terms, that is, establishing similarities and differences between intercultural attitudes and behaviours, can lead to richer conclusions, both from a theoretical perspective and applied to the field of management. This study focuses on two countries that have vastly different geographical locations and cultural traditions: Ukraine and Spain.

In 2021, Ukraine was at an early stage of tourism development. In recent years, the number of tourists visiting Kyiv, one of the country's main tourist destinations, had increased considerably, and the hotel sector had experienced steady growth until the first quarter of 2020 (Colliers International, 2021). More

specifically, passenger traffic at Kyiv airports in the first quarter of 2019 had increased to 65.2%, which evidenced Kyiv's growing role as a tourist attraction. By 2018, four new hotels had been opened in Kyiv, with a total capacity of 794 rooms. According to data from Colliers International (2021), profitability levels and hotel occupancy rates followed an increasing trend. In addition, several hotel chains had achieved Green Key eco-certification, while other hotels were beginning to implement eco-friendly initiatives (e.g., reuse of towels). However, despite these growing trends registered in 2021, upon the armed conflict that broke out in February 2022, the present situation in Ukraine casts doubts over its future.

As for Spain, tourism is considered one of the main strategic capacities for the development of the country. In recent years it has become one of the world's largest tourist destinations. According to Statista (2022), in early 2020 there were around 12,600 companies in the collective accommodation sector in Spain, which represents a slight increase compared to the figure for 2019. In the last decade, the main hotel brands throughout the country have launched extensive green initiatives to reduce their environmental footprint. Most of the hotel chains have been awarded sustainability certifications, such as Green Key, Green Leaders, Green Globe, and they rank among the first in the world in the evaluation of corporate sustainability for their climate strategy and environmental performance.

The differences between Ukraine and Spain are reflected in their positions in the Euromonitor International list. Ukraine was in 30th place according to the new Sustainable Travel Index, while Spain is five places ahead (Top Countries for Sustainable Tourism, 2021).

Furthermore, along with differences in sustainable tourism development and geographical location within the European space, Ukraine and Spain represent hugely diverse cultures. According to Hofstede's (2011) model, the two countries present considerable differences in the dimensions of: a) individualism versus collectivism; b) long-term versus short-term orientation; c) power distance index; and d) indulgence versus restraint (Hofstede Insights, 2021). First of all, with a score of 25 on the individualism dimension, Ukraine is a collectivist society, in which people identify as "we"; loyalty is paramount, and management is a group responsibility. On the contrary, with a score of 51, compared to Ukraine, Spain is a more individualistic culture, and more centred on "me" and one's identity. Second, Ukraine is a long-term-oriented country, with a score of 86, which means that it shows a propensity towards saving and perseverance. On the contrary, Spain scores 48 and is short-term oriented, meaning that it does not have a great concern about the future, but places emphasis on quick results and highly values leisure time. In terms of power distance, Ukraine scores highly in this dimension (92), meaning that less powerful members accept and expect power to be unevenly distributed and each person has their own place in the social and business hierarchy. On this dimension, Spain scores 57, which means that it is still a hierarchal society, but not as much as Ukraine, and is more inclined towards equality and decentralisation of power and decision-making than Ukraine is. Finally, Ukraine is a restrained society, with a score of 14, in which indulgence is suppressed and self-control is valued; everything that is enjoyed in life is not seen as something well considered. On the other hand, with a score of 44, although still restrained, Spain is more indulgent than Ukraine, meaning that gratification related to the enjoyment of life and fun are more welcome than in Ukraine. Added to all the above is the vision that underlies the Inglehart-Welzel cultural map (World Values Survey, 2020), in which the tradition of Catholic Europe present in Spain can be observed, compared to the tradition of Orthodox religion that predominates in Ukraine. The differences between both nations/cultures are evident; one is based in a territory geographically located in Eastern Europe, with an orthodox, collectivist tradition, which embraces hierarchy, with a long-term and restrictive outlook, compared to the other, located in Western Europe, Catholic tradition, more individualistic, with a short-term view and rather more indulgent.

Based on the above, it can be concluded that Ukraine and Spain show differences not only due to the disparate development of the tourism sector and the intensity of the adoption of sustainable practices in hotels, but also due to their cultural traits. However, to date no studies have been found that investigate either IMC or guest ecological knowledge based on a comparison according to the country of origin, taking Ukraine vs. Spain as the geographical context for this observation. The study by Šerić et al. (2015) highlights differences in the perception of IMC between individualistic (e.g., Italy) and collectivist societies (e.g., Croatia), and based on this, we can also expect to find differences in the perception of IMC for sustainability in countries with diverse cultural values such as Ukraine and Spain. It also seems relevant to progress with research on guest ecological knowledge in the two geographical contexts observed in order to find evidence that can guide the hotels' strategy. Different works on the pro-environmental behaviour of the consumer have analysed the answers of the clients on different variables from a transcultural and transnational angle, such as sustainable attitudes and behaviours (e.g., Minton et al., 2018), environmental concerns and pro-environmental behaviour (e.g., Tam and Milfont, 2020), or attitudes towards hotels sustainable practices (e.g., Berezan et al., 2013). Based on all of this, we offer the final working hypothesis related to different cultural variables (where the first characteristics stand for Ukrainian culture and the second for Spanish culture):

H7a-H7f: National culture (individualism versus collectivism; long-term versus short-term orientation; power distance index; indulgence versus restraint) affects the structural relationships between IMC for sustainability, ecological knowledge, satisfaction, and loyalty.

Figure 1 represents the proposed theoretical model, based on six hypotheses of causal effects between the variables and a seventh that suggests moderating effects based on the country of origin.

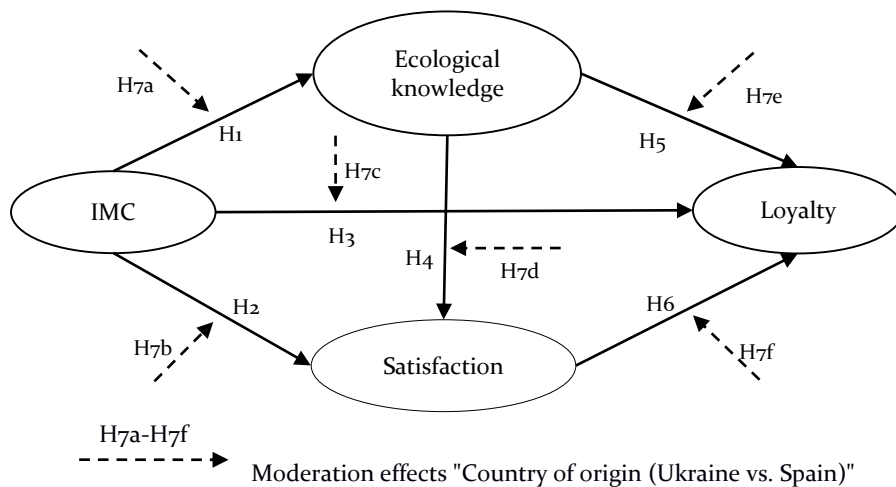


Figure 1. Theoretical model and hypotheses

3. Methodology

In order to contrast the theoretical model and the hypotheses on which it is based, two quantitative market investigations were conducted. The population defined for the study were guests of Spanish (in Spain) and Ukrainian (in Ukraine) nationality who stayed in three-star and four-star hotels in each country. In the study conducted in Ukraine, the non-probabilistic convenience sampling procedure was chosen; while in Spain, even with the same type of sampling, age and gender quotas were established according to the country's census data to guarantee sample-population proportionality. A total of 611 guests were observed. 254 self-administered questionnaires were collected in Ukraine in August 2018,

and 357 in Spain in October 2020 through a panel sample. The demographic profile of the respondents is presented in Table 1.

Table 1. Demographic profile and trip purpose

Items	Ukraine n=254		Spain n=357		Total sample N=611	
	n	(%)	n	(%)	N	(%)
Gender						
Men	106	41.7	181	50.7	287	47.0
Women	148	58.3	176	49.3	324	53.0
Age						
18-25 years old	102	40.2	51	14.3	153	25.0
26-35 years old	108	42.5	63	17.6	171	28.0
Older than 36	44	17.3	243	68.1	287	47.0
Level of education						
Higher/secondary	240	94.5	282	79.3	522	85.6
University degree	14	5.5	74	20.7	88	14.4
Employment situation						
Student	18	7.1	26	7.3	44	7.2
Employed	162	63.8	223	62.5	385	63.0
Self-employed	54	21.3	32	9.0	86	14.1
Not employed	20	7.9	76	21.3	96	15.7
Trip purpose						
Holidays	163	64.2	336	94.1	499	81.7
Business	91	35.8	21	5.9	112	18.3

The measurement scales of the variables to be observed in this study were selected from the reviewed literature and were adapted to the hotel environment. IMC for sustainability was evaluated through four indicators of the dimension “Unified communications for a consistent message and image” by Lee and Park (2007), adapted to the sustainable context. The elements related to guest ecological knowledge were taken from the work of Teng *et al.* (2018). Satisfaction with the hotel stay was assessed using three items suggested by Williams and Soutar (2009). Finally, loyalty was measured using the two-item scale based on Yoo and Donthu (2001). Previously, the validity of the content of the scales and the adequacy of the wording of the items were verified by experts. All variables were measured using 7-point Likert scale, from 1 (strongly disagree) to 7 (strongly agree).

4. Analysis of results

4.1. Measurement model

For data analysis, the non-parametric partial least squares (PLS) method was applied, using the SmartPLS 3.3.3 application (Ringle *et al.*, 2015). This method is suitable when the data does not show a normal distribution. Therefore, to ensure the chosen method, the Kolmogorov-Smirnov test was completed using the SPSS version 26 software to check the normality of the data distribution. The results showed that the data were not normally distributed, since all the items had critical values lower

than 0.05. Based on this, it was considered adequate to apply the PLS-SEM technique, also considering the exploratory nature of this work (Hair et al., 2017).

Table 2. Reliability and convergent validity

Construct		Loadings	t Values	Cron. α	CR	AVE
F1. INTEGRATED MARKETING COMMUNICATION FOR SUSTAINABILITY	IMC1. I believe that the hotel coherently sends its message of sustainability (environmental protection) through all the tools and communication channels (e.g., advertising, sales promotions, public relations, packaging, direct mail, POP display, banner, web page)	0.858**	62.846	0.896	0.927	0.761
	IMC2. I believe that the hotel maintains consistency in all visual components of communication (e.g., trademarks, logos, models, and colour)	0.866**	60.461			
	IMC3. I believe that the hotel maintains consistency in all linguistic components of communication (e.g., slogans and mottos)	0.868**	58.018			
	IMC4. I believe that the hotel ensures a consistent brand image about sustainability	0.898**	103.313			
F2. ECOLOGICAL KNOWLEDGE	EK1. I have knowledge about global warming (such as greenhouse effect)	0.787**	29.810	0.921	0.939	0.719
	EK2. I have knowledge of green consumption (consuming produce that is grown locally or is in season)	0.736**	31.013			
	EK3. I understand the interdependence of human beings and the eco-system	0.869**	68.665			
	EK4. I understand how much tourism industry depends on the natural environment and the resources in it	0.870**	56.864			
	EK5. I understand the balance between livelihood and the need to conserve the natural environment	0.907**	96.429			
	EK6. I understand how tourism activities influence the biodiversity and the population of species in a region	0.906**	112.084			
F3. SATISFACTION	SAT1. It was exactly what I needed	0.949**	161.526	0.958	0.973	0.922
	SAT2. It was a good choice	0.970**	310.144			
	SAT3. It was a good experience	0.961**	220.921			
F4. LOYALTY	L1. I feel loyal to this hotel	0.918**	83.878	0.838	0.925	0.860
	L2. This hotel is my first choice	0.937**	136.740			

Note: Cron. α - Cronbach's alpha, CR - Composite Reliability, AVE - Average Variance Extracted, **p < 0.01.

The measurement model of the scales used yielded good reliability and validity results. As shown in Table 2, the results confirm that all the indicator loadings are greater than 0.6 and statistically significant (Hair et al., 2017), with a mean of the standardised loadings greater than 0.7 in all cases. The reliability results show that the measurement model is consistent, with Cronbach's alpha and

Composite Reliability values for all variables well above the minimum acceptable value of 0.7 recommended by Nunnally and Bernstein (1994). Furthermore, the average variance extracted (hereinafter AVE) for all factors is above the minimum level of 0.5 recommended by Fornell and Larcker (1981).

The discriminant validity results (see Table 3) are satisfactory. The square of the estimated correlation between two factors is less than the average variance extracted from each factor (Fornell and Larcker, 1981). In addition, the AVE is greater than the square of the covariances, and no indicator has a significant influence on another factor that does not correspond to it. On the other hand, the HTMT values are less than 0.85 in all cases (Henseler *et al.*, 2015).

Table 3. *Discriminant validity*

Construct	F1	F2	F3	F4
F1. IMC FOR SUSTAINABILITY	0.873	0.522	0.578	0.488
F2. ECOLOGICAL KNOWLEDGE	0.482	0.848	0.398	0.148
F3. SATISFACTION	0.538	0.377	0.960	0.481
F4. LOYALTY	0.425	0.133	0.433	0.928

Note: Diagonal bold data represent the square root of the AVE. Below the diagonal: correlations between the factors. Above the diagonal: values of the squared correlations (HTMT ratio).

4.2. Structural model

Once the validity and reliability of the measurement instrument were confirmed, the structural model was calculated using PLS, analysing the significance of the structural relationships using the bootstrapping algorithm. The results of the structural model evaluation and the hypothesis test are shown in Table 4. The evaluation of the structural model shows values of the R² coefficient of determination significantly higher than the minimum recommended level of 0.1 (Falk and Miller, 1992) for all the factors in the model. In addition, the values of the Q² cross-validated redundancy index for all the latent dependent variables are positive and greater than 0 (Chin, 1998). These data confirm that the proposed model shows satisfactory results for explanatory power and predictive relevance.

Table 4. *Results of structural equation model*

Hypothesis	Relationship	β (Standardized beta)	t Value	Support
H1	IMC-> Ecological Knowledge	0.482**	12.647	Accepted
H2	IMC -> Satisfaction	0.464**	11.637	Accepted
H3	IMC -> Loyalty	0.326**	7.532	Accepted
H4	Ecological Knowledge -> Satisfaction	0.153**	3.156	Accepted
H5	Ecological Knowledge -> Loyalty	-0.142**	3.528	Not Accepted
H6	Satisfaction -> Loyalty	0.312**	7.612	Accepted

Note: Ecological Knowledge: R² =0.232; Q² =0.161; Satisfaction: R² =0.308; Q² =0.281; Loyalty: R² =0.255; Q² =0.215. **p <0.01.

The results of the calculation indicate that all the hypotheses except H5 are accepted. A positive and significant relationship is observed between the hotel's IMC for sustainability and the ecological knowledge of the clients ($\beta=0.482$, $p<0.01$; H1). This result indicates that guests' positive perceptions of IMC for sustainability drive their ecological knowledge. Likewise, positive relationships are verified between IMC for sustainability and satisfaction ($\beta=0.464$, $p<0.01$; H2) and between IMC and loyalty

($\beta=0.326$, $p<0.01$; H3). This means that the positive perception of the guests about a hotel's IMC increases their satisfaction with the stay and their loyalty towards the hotel. Likewise, our results reveal that the impact of ecological knowledge on satisfaction is significant ($\beta=0.153$, $p<0.01$; H4), which confirms that a higher level of guest ecological knowledge leads to a higher degree of satisfaction with the hotel stay. Finally, the results show the significant influence of satisfaction on loyalty ($\beta=0.312$, $p<0.01$; H6), thus further confirming that satisfaction is an important antecedent of loyalty. On the contrary, the relationship between ecological knowledge and loyalty, although significant, is negative ($\beta=-0.142$, $p<0.01$; H5), which leads us to reject the proposed hypothesis.

4.3. Multigroup analysis

To verify the differences between the causal relationships postulated in the model, a multigroup analysis (MGA) was performed using SmartPLS 3.3.3 (Hair et al., 2018). The MGA non-parametric significance test compares the bootstrap estimates obtained from all samples. The results will be significant at the 5% error probability level if the p-value is less than 0.05 or greater than 0.95 (Hair et al., 2018). The results of this analysis are presented in Table 5.

Table 5. Results of MGA

Hypothesis	Relationship	Ukraine N=254		Spain N=357		Ukraine vs. Spain	
		β	t	β	t	β diff.	p
H7a	IMC-> Ecological Knowledge	0.478	8.423**	0.467	9.411**	-0.011	0.885n/s
H7b	IMC -> Satisfaction	0.537	10.464**	0.390	6.356**	-0.147	0.064n/s
H7c	IMC -> Loyalty	0.495	8.162**	0.135	2.322*	-0.360	0.000**
H7d	Ecological Knowledge -> Satisfaction	0.091	1.301n/s	0.172	2.445*	0.081	0.412n/s
H7e	Ecological Knowledge -> Loyalty	-0.231	4.309**	0.005	0.090n/s	0.226	0.003**
H7f	Satisfaction -> Loyalty	0.145	2.558*	0.525	9.319**	0.380	0.000**

Note: **Ukraine:** Ecological knowledge: $R^2=0.215$; $Q^2=0.133$; Satisfaction: $R^2=0.244$; $Q^2=0.220$; Loyalty: $R^2=0.357$; $Q^2=0.289$. **Spain:** Ecological knowledge: $R^2=0.229$; $Q^2=0.182$; Satisfaction: $R^2=0.340$; $Q^2=0.309$; Loyalty: $R^2=0.264$; $Q^2=0.227$; ** $p<0.01$; * $p<0.05$; n/s - not significant.

As shown in Table 5, MGA identified a significant difference between the Ukrainian and Spanish samples in terms of the effect of IMC on loyalty, being significantly stronger among the Ukrainian sample than the Spanish one (difference of $\beta=-0.360$, $p<0.01$), accepting H7c. Furthermore, significant differences are observed in the relationship between ecological knowledge and loyalty, where the effect is negative and significant for guests from Ukraine and not significant for guests staying in hotels in Spain (difference $\beta=0.226$, $p<0.01$); therefore, H7e is accepted. Additionally, the results for Ukraine show a significantly weaker relationship between customer satisfaction and their level of loyalty towards the hotel than in the case of the Spanish sample; therefore, H7f is also accepted (difference in $\beta=0.380$, $p<0.01$). On the contrary, no significant differences were found in the relationships between IMC and ecological knowledge, on one hand, and IMC and satisfaction, on the other and therefore H7a and H7b are not accepted. Finally, the results did not verify significant differences in the relationships between ecological knowledge and satisfaction; consequently, H7d is also not confirmed.

5. Conclusions

The need to advance knowledge about how tourism companies can influence their clients, so that they become active partners in reducing resource consumption in favour of more environmentally sustainable tourism, has been highlighted in the literature (Ostrom et al., 2021). Following this research

direction, this study has focused on two emerging concepts: IMC for sustainability and ecological knowledge, which respond to the search for new bases on which to articulate successful strategies in the tourism company (Bordian *et al.*, 2022). The findings of the work show the usefulness of the two concepts in a context like the current one, in which the health crisis has radically transformed consumers and companies, accentuating their awareness and commitment to the use of natural resources. In this way, it contributes to reducing the identified research gap, by revealing the significant role that IMC for sustainability plays in guest loyalty, observing a link in the relationship between the two, both through ecological knowledge and satisfaction. In addition, depending on the country of origin/culture, the strength of the effects of IMC, ecological knowledge, and satisfaction on loyalty changes significantly.

The empirical evidence found provides a new understanding of the effects of IMC for sustainability, through its connection with the ecological knowledge of the guest and with their satisfaction and outlines a new route for the achievement of customer loyalty. It is suggested that both ecological knowledge and satisfaction play a vital role in the relationship between IMC and loyalty. In turn, it is also observed that the interactions between some effects contemplated in the model are moderated by the country of origin/culture, that significantly influences customers' attitudes, perceptions, and behaviour, corroborating the evidence obtained previously in other works (e.g., Šerić and Gil-Saura, 2011; Berezan *et al.*, 2013; Lorenzo-Romero *et al.*, 2019; Tam and Milfont, 2020). The findings show that IMC and satisfaction explain, clearly, guest loyalty; however, the two variables have different degrees of importance for each country when affecting loyalty. In particular, the effect of IMC on loyalty appears to be stronger in Ukraine than in Spain, whereas, in Spain, satisfaction effect on loyalty is found to execute a greater impact than in Ukraine. Furthermore, in Ukraine, ecological knowledge has a significant, although negative, effect on loyalty, in such a way that the greater the ecological knowledge, the less loyalty the Ukrainian guests show. This unexpected result might be explained not only by the distinct cultural traits between Ukraine and Spain (individualism versus collectivism; long-term versus short-term orientation; power distance index; indulgence versus restraint (*the first characteristics stand for Ukrainian culture and the second for Spanish culture*)), but also by the different levels of development of sustainable culture and the tourism sector in each country, which affects the level of ecological knowledge that customers have (Guyader *et al.*, 2022). Moreover, knowledgeable guests may experience scepticism regarding the company's green performance and view it as greenwashing and not trustworthy due to past negative experiences (Szabo and Webster, 2021) that might affect loyalty negatively. At the same time, less knowledgeable guests might consider hotels' sustainable practices as inconvenient and undesirable during their stay (Teng *et al.*, 2018; Guyader *et al.*, 2022), which might negatively impact on their level of loyalty. No doubts these results concerning ecological knowledge and loyalty relationship represent intriguing areas for future research.

Finally, regarding the implications for management, in light of the findings, it is plausible to develop strategies to increase the coherence of communication on sustainability, given that this exerts a clear influence on the levels of guest satisfaction, and on their loyalty. In addition, the different elements of IMC should be aligned to guarantee clarity and coherence in its global expression, thereby responding effectively to market demands. For their part, managers should also consider that ecological knowledge has the ability to influence guest satisfaction directly and positively, but also negatively in their expression of loyalty. For all these reasons, it is highly recommended to invest in initiatives and practices that could educate hotel guests regarding environmental issues, and perhaps the use of communication for sustainability is the optimal way to achieve this momentum (Bordian *et al.*, 2022). All of mentioned might be achieved perhaps by using online marketing tools, such as, for example, increasing hotel brand presence on social media. In that way, hoteliers may not only unify the message to improve its consistency and coherence but also strengthen their communication with pro-environmental claims,

give visibility to the hotel's sustainable practices, and engage their prospective and current clients to increase satisfaction with the stay and loyalty with the brand. Finally, in both countries, hotel marketers should pay special attention to the message's credibility, reflecting truth supported by practical sustainable cases to increase guests' satisfaction. Furthermore, in Ukraine, in the first place, the weight of communication about sustainability in total communication should increase. Hotels should care more about the level of service and commodities they provide to the customers to elevate clients' loyalty. Like all research works, this one also has some limitations, which should be considered as opportunities for future developments. In the first place, given the time difference between the years in which the two field studies were carried out, in Ukraine and in Spain, it would be desirable to replicate the two studies in the same year in order to obtain cross-sectional results over time and eliminate possible biases in the results derived from this limitation. However, Ukraine's present situation casts a question mark over its future. The war has created a scenario of instability that makes it impossible to predict the future of tourism in Ukraine. Second, given the restricted geographical scope of the study conducted in Ukraine, other Eastern European countries should be included to achieve a more extensive territorial coverage. Finally, the sampling methods of both countries have been different, which has caused some differences in the composition of the sample according to the age ranges. For this reason, it would be appropriate to apply the same sampling methods in future cross-cultural research, which will lead to more representative results.

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References

- Ahmad, A., & Thyagaraj, K.S. (2015). Consumer's intention to purchase green brands: The roles of environmental concern, environmental knowledge and self-expressive benefits. *Current World Environment*, 10(3), 879–889. <http://doi.org/10.12944/CWE.10.3.18>
- Alevizou, P., Henninger, C., & Spinks, C. (2019). Communicating sustainability practices and values: A case study approach of a micro-organisation in the UK. *International Journal of Business and Globalisation*, 22(1), 37–52. <https://doi.org/10.1504/IJBG.2019.097388>
- Arcury, T., & Johnson, T. (1987). Public environmental knowledge: A state wide survey. *The Journal of Environmental Education*, 18, 31–37. <https://doi.org/10.1080/00958964.1987.9942746>
- Becken S (2007). Tourists' perception of international air travel's impact on the global climate and potential climate change policies. *Journal of Sustainable Tourism*, 15(4), 351–368. <https://doi.org/10.2167/jost710.0>
- Berezan, O., Raab, C., Yoo, M., & Love, C. (2013). Sustainable hotel practices and nationality: The impact on guest satisfaction and guest intention to return. *International Journal of Hospitality Management*, 34, 227–233. <http://doi.org/10.1016/j.ijhm.2013.03.010>
- Bordian, M., & Gil Saura, I. (2021). Do IMC and ecological knowledge drive value co-creation? The new way to loyalty in hospitality. *Sustainability*, 13(19), 1–15. <https://doi.org/10.3390/su131910785>
- Bordian, M., Gil Saura, I., & Šerić, M. (2022). How does Integrated Marketing Communication boost guest satisfaction? A proposal through ecological knowledge and value co-creation. *Management Letters/Cuadernos de Gestión*, 22(1), 7–20. <https://doi.org/10.5295/cdg.201303ig>
- Bormane, S. (2018). *Integrated marketing communications in sustainable business*. Proceedings of the International Scientific Conference, 4, 80–86. <http://doi.org/10.17770/sie2018vol1.3405>

- Chan, J. K. L., & Baum, T. (2007a). Researching consumer satisfaction: An extension of Herzberg's motivator and hygiene factor theory. *Journal of Travel & Tourism Marketing*, 23(1), 71-83. http://doi.org/10.1300/J073v23n01_06
- Chan, J. K. L., & Baum, T. (2007b). Ecotourists' perception of ecotourism experience in lower Kinabatangan, Sabah, Malaysia. *Journal of Sustainable Tourism*, 15(5), 574-590. <https://doi.org/10.2167/jost679.0>
- Chen, M.F., & Tung, P.J. (2014). Developing an extended theory of planned behavior model to predict consumers' intention to visit green hotels. *International Journal of Hospitality Management*, 36, 221-230. <https://doi.org/10.1016/j.ijhm.2013.09.006>
- Cheng, T., & Wu, H. C. (2015). How do environmental knowledge, environmental sensitivity, and place attachment affect environmentally responsible behavior? An integrated approach for sustainable island tourism. *Journal of Sustainable Tourism*, 23(4), 37-41. <https://doi.org/10.1080/09669582.2014.965177>
- Chin W.W. (1998). The partial least squares approach to structural equation modelling. In G. A. Marcoulides (Ed.), *Modern methods for business research*, Mahwah, NJ: Lawrence Erlbaum Associates, pp. 295-336.
- Colliers International (2021). Kyiv. Hotels market overview. Retrieved from: <https://www.colliers.com/en-ua/research/2021-1h-kyiv-hotels-market-overview> (Accessed 27 September 2022).
- Corder, G.W., & Foreman, D.I. (2009). *Non-parametric statistics for non-statisticians: A step-by-step approach*. New Jersey, NJ: Wiley.
- Falk R.F. & Miller N.B. (1992). *A primer for soft modelling*. Akron, OH: The University of Akron.
- Fornell C., & Larcker D.F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50. <https://doi.org/10.1177/002224378101800104>
- Franco, S., Caroli, M., & Del Chiappa, G. (2021). The impact of hotel sustainability practices on tourist intentions to book hotel rooms. *Sinergie Italian Journal of Management*, 39(1), 21-35. <https://doi.org/10.7433/S114.2021.03>
- Gautam, V. (2020). Examining environmental friendly behaviors of tourists towards sustainable development. *Journal of Environmental Management*, 276(9), 1-9. <https://doi.org/10.1016/j.jenvman.2020.111292>
- Grissemann, U.S., & Stokburger-Sauer, N.E. (2012). Customer co-creation of travel services: The role of company support and customer satisfaction with the co-creation performance. *Tourism Management*, 33(6), 1483-1492. <https://doi.org/10.1016/j.tourman.2012.02.002>
- Guyader, H., Ponsignon, F., Salignac, F., & Bojovic, N. (2022). Beyond a mediocre customer experience in the circular economy: The satisfaction of contributing to the ecological transition. *Journal of Cleaner Production*, 378, 1-14. <https://doi.org/10.1016/j.jclepro.2022.134495>
- Hair J.F., Hult G.T., Ringle C.M., & Sarstedt M. (2017). *A primer on partial least squares structural equation modelling (PLS-SEM)* (2nd ed.). Thousand Oaks, CA: Sage.
- Hair J.F., Sarstedt M., Ringle C.M., & Gudergan S.P. (2018). *Advanced issues in partial least squares structural equation modelling (PLS-SEM)*, Thousand Oaks, CA: Sage.
- Han, H. (2021). Consumer behavior and environmental sustainability in tourism and hospitality: a review of theories, concepts, and latest research. *Journal of Sustainable Tourism*, 29(7), 1021-1042. <https://doi.org/10.1080/09669582.2021.1903019>
- Hayes A.F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York, NY: Guilford Press.
- He, L., & Filimonau, V. (2020). The effect of national culture on pro-environmental behavioural intentions of tourists in the UK and China. *Tourism Management Perspectives*, 35(7), 1-16. <https://doi.org/10.1016/j.tmp.2020.100716>

- Henseler J., Ringle C.M., & Sarstedt M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modelling. *Journal of the Academy of Marketing Science* 43(1), 115-135. <https://doi.org/10.1007/s11747-014-0403-8>
- Hofstede Insights (2021). Country comparison: Retrieved from: <https://www.hofstede-insights.com/country-comparison/spain,ukraine/> (Accessed 30 June 2021).
- Hofstede, G. (2011). Dimensionalizing cultures: The Hofstede model in context. *Online Readings in Psychology and Culture*, 2(1), 1-26. <https://doi.org/10.9707/2307-0919.1014>
- Hornig, J., Hu, M.M., Teng, C.C., Hsiao, H., & Liu, C.-H. (2013). Development and validation of the low-carbon literacy scale among practitioners in the Taiwanese tourism industry. *Tourism Management*, 35, 255-262. <https://doi.org/10.1016/j.tourman.2012.08.001>
- Hsiao, T. (2016). Developing a dual-perspective low-carbon tourism evaluation index system for travel agencies. *Journal of Sustainable Tourism*, 24(12), 1604-1623. <https://doi.org/10.1080/09669582.2015.1136633>
- Hu, M.M., Hornig, J., & Teng, C.C. (2013). Assessing students' low carbon literacy by Redit IPA approach. *Journal of Hospitality, Leisure, Sport & Tourism Education*, 13, 202-212. <https://doi.org/10.1016/j.jhlste.2013.09.006>
- Huang, S., & Crotts, J. (2019). Relationships between Hofstede's cultural dimensions and tourist satisfaction: A cross-country cross-sample examination. *Tourism Management*, 72(11), 232-241. <https://doi.org/10.1016/j.tourman.2018.12.001>
- Hungerford, H.R., & Volk, T.L. (1990). Changing learner behavior through environmental education. *The Journal of Environmental Education*, 21, 8-21. <https://doi.org/10.1080/00958964.1990.10753743>
- Kapoor, P.S., Balaji, M.S., & Jiang, Y. (2021). Effectiveness of sustainability communication on social media: role of message appeal and message source. *International Journal of Contemporary Hospitality Management*, 33(3), 949-972. <https://doi.org/10.1108/IJCHM-09-2020-0974>
- Keller, K.L. (2009). Building strong brands in a modern marketing communications environment. *Journal of Marketing Communications*, 15(2/3), 139-155. <https://doi.org/10.1080/13527260902757530>
- Khoo-Lattimore C., & Prideaux B. (2013). ZMET: a psychological approach to understanding unsustainable tourism mobility. *Journal of Sustainable Tourism*, 21(7), 1036-1048. <https://doi.org/10.1080/09669582.2013.815765>
- Kitchen, P.J. (2017). Integrated Marketing Communications - current status, future developments. *European Journal of Marketing*, 51(3), 394-405. <https://doi.org/10.1108/EJM-06-2016-0362>
- Kollmuss, A., & Agyeman, J. (2002). Mind the gap: why do people act environmentally and what are the barriers to pro-environmental behavior?. *Environmental education research*, 8(3), 239-260. <https://doi.org/10.1080/13504620220145401>
- Lee, D.H., & Park, C.W. (2007). Conceptualization and measurement of multidimensionality of integrated marketing communications. *Journal of Advertising Research*, 47, 222-236. <https://doi.org/10.2501/S0021849907070274>
- Lee, J.S., Hsu, L.T., Han, H., & Kim, Y. (2010). Understanding how consumers view green hotels: How a hotel's green image can influence behavioural intentions. *Journal of Sustainable Tourism*, 18, 901-914. <https://doi.org/10.1080/09669581003777747>
- Londoño, M.L., & Hernandez-Maskivker, G. (2016). Green practices in hotels: the case of the GreenLeaders program from TripAdvisor, *Sustainable Tourism*, 7(1), 1-13. <https://doi.org/10.2495/ST160011>
- Lorenzo-Romero, C., Alarcón-del-Amo, M.D.C., & Crespo-Jareño, J.A. (2019). Cross-cultural analysis of the ecological behavior of Chilean and Spanish ecotourists: a structural model. *Ecology and Society*, 24(4), 38. <https://doi.org/10.5751/ES-11343-240438>
- Marketing Science Institute (2020). *Research Priorities 2020-2022*. Cambridge, Mass.

- Martínez, P., & Rodríguez del Bosque, I. (2013). CSR and customer loyalty: The roles of trust, customer identification with the company and satisfaction. *International Journal of Hospitality Management*, 35, 89–99. <https://doi.org/10.1016/j.ijhm.2013.05.009>
- Martínez, P. (2015). Customer loyalty: Exploring its antecedents from a green marketing perspective. *International Journal of Contemporary Hospitality Management*, 27(5), 896–917. <https://doi.org/10.1108/IJCHM-03-2014-0115>
- Moise, M.S., Gil-Saura, I., & Ruiz-Molina, M.E. (2018). Effects of green practices on guest satisfaction and loyalty. *European Journal of Tourism Research*, 20(20), 92–104. <https://doi.org/10.54055/ejtr.v20i.342>
- Moise, M.S., Gil-Saura, I., & Ruiz-Molina, M.E. (2021). The importance of green practices for hotel guests: does gender matter? *Economic Research-Ekonomska Istraživanja*, 34(1), 3508–3529. <https://doi.org/10.1080/1331677X.2021.1875863>
- Nunnally J.C., & Bernstein I.H. (1994). Validity. *Psychometric Theory*, 3, 99–132.
- Ostergaard, P., & Bode, M. (2016). Is consumer culture theory research or realpolitik? A sociology of knowledge analysis of a scientific culture. *Journal of Consumer Behavior*, 15(5), 387–395. <https://doi.org/10.1002/cb.1574>
- Ostrom, A.L., Field, J.M., Fotheringham, D., Subramony, M., Gustafsson, A., Lemon, K.N., McColl-Kennedy, J.R. (2021). Service research priorities: Managing and delivering service in turbulent times. *Journal of Service Research*, 24(3), 329–353. <https://doi.org/10.1177/10946705211021915>
- Oviedo-García, M.Á., Castellanos-Verdugo, M., Vega-Vázquez, M., & Orgaz-Agüera, F. (2017). The mediating roles of the overall perceived value of the ecotourism site and attitudes towards ecotourism in sustainability through the key relationship ecotourism knowledge-ecotourist satisfaction. *International Journal of Tourism Research*, 19(2), 203–213. <https://doi.org/10.1002/jtr.2097>
- Pisicchio, A.C., & Toaldo, A.M.M. (2020). Integrated marketing communication in hospitality SMEs: analysing the antecedent role of innovation orientation and the effect on market performance. *Journal of Marketing Communications*, 27(7), 742–761. <https://doi.org/10.1080/13527266.2020.1759121>
- Porcu, L., Barrio-García, S., Alcántara-Pilar, J.M., & Crespo-Almendros, E. (2019). Analysing the influence of firm-wide integrated marketing communication on market performance in the hospitality industry. *International Journal of Hospitality Management*, 80(1), 13–24. <https://doi.org/10.1016/j.ijhm.2019.01.008>
- Prud'homme, B., & Raymond, L. (2013). Sustainable development practices in the hospitality industry: An empirical study of their impact on customer satisfaction and intentions. *International Journal of Hospitality Management*, 34, 116–126. <https://doi.org/10.1016/j.ijhm.2013.03.003>
- Reid, M. (2005). Performance auditing of integrated marketing communications (IMC) actions and outcomes. *Journal of Advertising*, 34(4), 41–54. <https://doi.org/10.1080/00913367.2005.10639208>
- Ringle, C.M., Wende, S., & Becker, J.-M. (2015). SmartPLS 3. Boenningstedt: SmartPLS GmbH, Retrieved from: <http://www.smartpls.com>. (Accessed 30 June 2021).
- Schmitt, M.T., Aknin, L.B., Axsen, J., & Shwom, R.L. (2018). Unpacking the relationships between pro-environmental behavior, life satisfaction, and perceived ecological threat. *Ecological Economics*, 143, 130–140. <https://doi.org/10.1016/j.ecolecon.2017.07.007>
- Šerić, M., & Gil-Saura, I. (2011). Valor de marca en los hoteles de alta categoría: un análisis desde la perspectiva del huésped según su país de origen. *Gran Tour: Revista de Investigaciones Turísticas*, 3, 10–30.
- Šerić, M., & Gil-Saura, I. (2012). ICT, IMC, and brand equity in high-quality hotels of Dalmatia: An analysis from guest perceptions. *Journal of Hospitality Marketing & Management*, 21(8), 821–851. <https://doi.org/10.1080/19368623.2012.633211>

- Šerić, M., Gil-Saura, I., & Ozretić-Došen, Đ. (2015). Insights on integrated marketing communications: implementation and impact in hotel companies. *International Journal of Contemporary Hospitality Management*, 27(5), 958–979. <https://doi.org/10.1108/IJCHM-12-2013-0568>
- Statista (2022). El sector hotelero en España - Datos estadísticos. Retrieved from: https://es.statista.com/temas/3875/sector-hotelero-en-espana/#topicHeader__wrapper (Accessed 27 September 2022).
- Szabo, S., & Webster, J. (2021). Perceived greenwashing: the effects of green marketing on environmental and product perceptions. *Journal of Business Ethics*, 171(4), 719–739. <https://doi.org/10.1007/s10551-020-04461-0>
- Tafesse, W., & Kitchen, P. J. (2017). IMC—an integrative review. *International Journal of Advertising*, 36(2), 210–226. <https://doi.org/10.1080/02650487.2015.1114168>
- Tam, K.P., & Milfont, T.L. (2020). Towards cross-cultural environmental psychology: A state-of-the-art review and recommendations. *Journal of Environmental Psychology*, 71. <https://doi.org/10.1016/j.jenvp.2020.101474>
- Teng, C.-C., Lu, A.C.C., & Huang, T.-T. (2018). Drivers of consumers' behavioral intention toward green hotels. *International Journal of Contemporary Hospitality Management*, 30(2), 1134–1151. <https://doi.org/10.1108/IJCHM-04-2017-0203>
- Tölkes, C. (2020). The role of sustainability communication in the attitude–behaviour gap of sustainable tourism. *Tourism and Hospitality Research*, 20(1), 117–128. <https://doi.org/10.1177/1467358418820085>
- Top Countries for Sustainable Tourism, 15 March 2021: Retrieved from: <https://ftnnews.com/tours/41401-top-cities-for-global-sustainable-tourism> (Accessed 30 June 2021).
- Verma, V. K., Chandra, B., & Kumar, S. (2019). Values and ascribed responsibility to predict consumers' attitude and concern towards green hotel visit intention. *Journal of Business Research*, 96(11), 206–216. <https://doi.org/10.1016/j.jbusres.2018.11.021>
- Wang, S., Wang, J., Wang, Y., Yan, J., & Li, J. (2018). Environmental knowledge and consumers' intentions to visit green hotels: the mediating role of consumption values. *Journal of Travel and Tourism Marketing*, 35(9), 1261–1271. <https://doi.org/10.1080/10548408.2018.1490234>
- Williams, P., & Soutar, G.N. (2009). Value, satisfaction and behavioural intentions in an adventure tourism context, *Annals of Tourism Research*, 36(3), 413–438. <https://doi.org/10.1016/j.annals.2009.02.002>
- World Values Survey (2020), Retrieved from: <https://www.worldvaluessurvey.org/WVSContents.jsp> (Accessed 30 June 2021).
- Yoo, B., & Donthu, N. (2001). Developing and validating a multidimensional consumer-based brand equity scale, in: *Journal of Business Research*, 52(1), 1–14. [https://doi.org/10.1016/S0148-2963\(99\)00098-3](https://doi.org/10.1016/S0148-2963(99)00098-3)
- Zhang, J. (2017). Evaluating regional low-carbon tourism strategies using the fuzzy Delphi- analytic network process approach. *Journal of Cleaner Production*, 141, 409–419. <https://doi.org/10.1016/j.jclepro.2016.09.122>

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