

Post-COVID-19 pandemic motivations and segmentation in coastal cities: a study in Lima, Peru

Mauricio Carvache-Franco, Aldo Alvarez-Risco, Wilmer Carvache-Franco, Orly Carvache-Franco and Shyla Del-Aguila-Arcentales

Abstract

Purpose – Coastal cities offer great ecological, cultural and economic benefits due to their tourism potential. The objective of this research is to (1) identify tourists' post-pandemic motivations, (2) establish a post-pandemic demand segmentation and (3) determine the relationship between post-pandemic segments and loyalty.

Design/methodology/approach – This study was carried out in Lima, Peru, a tourist destination on the Pacific Ocean coast. The sample was collected between June and July 2020, during the coronavirus disease 2019 (COVID-19) pandemic. In total, 354 valid questionnaires represented the sample size of this quantitative study. For data analysis, factor analysis and K-means non-hierarchical clustering were used.

Findings – The results show four post-pandemic motivational dimensions in coastal cities: "novelty and escape," "learning and culture," "destination safety" and "service safety." Likewise, there are two post-pandemic segments in coastal cities: "safety seekers" who want to feel safe at the destination and with its services, and "multiple motives," motivated by several reasons simultaneously, such as safety, novelty and escape, and learning and culture. The multiple motives group shows higher return intentions, making it a crucial post-pandemic segment in coastal cities.

Research limitations/implications – The limitations of the present study were the online sampling and the timing when collecting the data since the demand can vary due to seasonal reasons.

Practical implications – Since coastal cities have natural and cultural attractions appealing to many travelers, they should adopt the necessary biosecurity measures to attract the safety seekers' segment, who wants to feel safe at the destination and with its services. Similarly, the multiple motives' segment favors safety over other recreational activities in the coastal area, so it is necessary that activities such as sports on the beach, walks, observation of flora and fauna, navigation and interaction with the community, meet the required biosecurity standards.

Social implications – The results will be used to plan the following actions in coastal destinations and meet the tourists' demands when this health crisis ends.

Originality/value – In this context, up to date, demand segmentation by motivations in coastal cities during the COVID-19 pandemic has not been investigated. Such a study will help to obtain post-pandemic results regarding the tourism demand for these destinations. To date, there are no studies in coastal cities that analyze demand segmentation and its motivations for the post-COVID-2019 pandemic.

Keywords COVID-19, Motivation, Segmentation, Coastal city, Post-pandemic

Paper type Research paper

Mauricio Carvache-Franco is based at the Universidad Espíritu Santo, Samborondón, Ecuador.

Aldo Alvarez-Risco is based at the Universidad de Lima, Lima, Peru.

Wilmer Carvache-Franco is based at the Escuela Superior Politécnica del Litoral, ESPOL, Guayaquil, Ecuador.

Orly Carvache-Franco is based at the Universidad Católica de Santiago de Guayaquil, Guayaquil, Ecuador.

Shyla Del-Aguila-Arcentales is based at the Escuela Nacional de Marina Mercante "Almirante Miguel Grau", Callao, Perú.

Received 14 September 2021

Revised 10 December 2021

Accepted 2 March 2022

© Mauricio Carvache-Franco, Aldo Alvarez-Risco, Wilmer Carvache-Franco, Orly Carvache-Franco and Shyla Del-Aguila-Arcentales. Published in *Journal of Tourism Futures*. Published by Emerald Publishing Limited. This article is published under the Creative Commons Attribution (CC BY 4.0) licence. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this licence may be seen at <http://creativecommons.org/licenses/by/4.0/legalcode>.

1. Introduction

At a global level, the tourism field has also been impacted negatively (Qiu *et al.*, 2020; Kaushal and Srivastava, 2020; Gössling *et al.*, 2020). For its part, on January 28, 2021, the World Tourism Organization (UNWTO, 2021) reported that world tourism recorded its worst year in 2020, with a 74% drop in international arrivals. Destinations around the world received one billion fewer international arrivals in 2020 than the previous year, due to an unprecedented slump in demand

and widespread travel restrictions. The coronavirus disease 2019 (COVID-19) crisis currently presents the opportunity to rethink the transformation of sustainable tourism globally (Gössling *et al.*, 2020).

Coastal and marine destinations can offer a wide range of activities for tourists: visiting local communities, practicing water sports, spotting marine flora and fauna, practicing ecotourism and trying local gastronomy (Carvache-Franco *et al.*, 2020a). Coastal tourism includes various activities such as sports, wellness stays, observation of nature and wildlife, and volunteer activities and education (Orams and Lueck, 2016). Likewise, coastal tourism can be understood as part of marine activities since both are closely linked.

Motivations continue to be a key factor in visitors' decision-making process (Yolal *et al.*, 2015). In fact, segmentation is the primary method for deciding which consumer groups to target, determining how to use resources more efficiently and evaluating different competitive strategies (Ho *et al.*, 2012).

In this scenario, Lima, the capital of Peru, is located in the central coastal part of the country, surrounded by the Pacific Ocean. It has been recognized as an attractive coastal city for tourism and especially interesting to investigate tourist behavior. Lima was founded 486 years ago and in 1991 was named a World Heritage Site by UNESCO. Lima is known for being a coastal and marine tourist destination of international importance, having 6 districts that add up to 23 beaches known as the "Green Coast." Lima's coastal area is usually the venue for various gastronomic, sporting and cultural events on a global and regional level. It holds family fairs throughout the year.

In this context, up to date, demand segmentation by motivations in coastal cities during the COVID-19 pandemic has not been investigated. Such a study will help to obtain post-pandemic results regarding the tourism demand for these destinations. In light of this research gap, the present study aims (1) to identify tourists' post-pandemic motivations in a coastal city; (2) to establish a post-pandemic demand segmentation in this destination and (3) to determine the relationship between the post-pandemic segments and loyalty in a coastal city. The techniques used to obtain the results were factor analysis and *K*-means non-hierarchical clustering. The main findings are to have found the motivations and current segments of cities based on the changes that travel has had due to the influence of the COVID-2019 pandemic.

2. Literature review

2.1 Influence of COVID-19 on tourism

Aspects related to safety when traveling after the COVID-19 pandemic have been underresearched in the academic literature. Policy-makers should be informed that tourism can promote development through public interventions by designing and implementing integrated policies in developing economies (Khan *et al.*, 2020a). There is a significant positive relationship between tourism and general well-being, both in the short and long term. The authors find that tourism and general well-being affect each other positively (Khan *et al.*, 2020b). Tourism development improves economic growth and well-being, on the contrary, population growth and political instability exhibited a negative relationship with well-being; Furthermore, the level of political stability determined tourism activities (Khan *et al.*, 2021). The severity and susceptibility of the threat can cause "fear of travel," leading to protective motivation and protective travel behaviors after the pandemic outbreak (Zheng *et al.*, 2021). All these facts of confinement, fears and a global economic crisis may cause travel motivations to vary in coastal cities, making tourists feel motivated to the safety measures offered in these destinations.

2.2 Tourist motivations in coastal cities

As previous findings, we will first examine the studies that analyzed the push and pull construct, starting with Yiamjanya and Wongleedee's (2014) study which explored the push and pull

motivations of international tourists visiting Thailand. They established that the push factors were gaining experience in foreign lands, relaxing in foreign lands, learning a new culture, wanting to learn new things, enjoying activities, taking an interest in Thai culture and adventure. The pull elements that motivated international tourists to visit this destination were Thai food, traditional markets and good weather.

In another study, [Jeong \(2014\)](#) identified marine tourists' push and pull motivations in Seoul, South Korea. He found two push dimensions: escape and novelty; and two pull motivations: active marine activities and static marine activities. The results of the study revealed that active marine activities should attract more tourists with novelty push motivations, and destinations with static marine activities would be suitable for tourists with escape motivations. Similarly, [Sastre and Phakdee-Auksorn \(2017\)](#) studied British tourists' travel patterns in Phuket, Thailand. They found that the push motivations were to have fun, rest and relax, escape from the daily routine and the environment; and the main pull motivations were landscapes and natural sceneries, beaches, and hospitality and friendliness of the people. Likewise, [Güzel et al. \(2020\)](#) identified six motivational push factors in Antalya on the Mediterranean coast of southwestern Turkey. They were curiosity, relaxation, escape, sports and active life, extravagance and travel bragging.

Without using the above construct, [Rid et al. \(2014\)](#) carried out a motivational segmentation for rural tourism activities in The Gambia. The motivational factors found were heritage and nature seekers, multi-experience seekers, multi-experience and beach seekers, and sun and beach seekers. Similarly, [Carvache-Franco et al. \(2020b\)](#) determined six motivational dimensions in the coastal city of Salinas, Ecuador. They were authentic coastal experience, heritage and nature, learning, novelty and social interaction, physical activities, and sun and sand. These authors claim that all dimensions found are related to the sun and the beach, nature, culture and social interaction.

After analyzing the variety of motivations found in coastal cities, it is established that some dimensions appear recurrently, such as relaxation, the sun and the beach, culture, escape and social interaction. However, so far, previous research has not addressed motivations in coastal cities in post-pandemic times. In addition, although safety has the highest priority in travelers' decisions, no studies have been found in the literature related to post-pandemic safety motivations in coastal cities.

2.3 Demand segmentation in coastal cities

The segmentation strategy can be used to identify specific tour groups, offer better tour packages, increase benefits for destinations, and develop more efficient tourism policies or marketing planning ([Nickerson et al., 2016](#)). For this reason, market segmentation has been applied according to each destination's characteristics, either cultural, gastronomic, ecotourism, urban or coastal. Different studies related to this topic have been carried out in coastal cities. [Rudež et al. \(2013\)](#) found four segments in Portorož, Slovenia: (1) Friends-oriented visitors, who are interested in walking, eating, enjoying the nightlife and enjoying the pool; (2) Wellness visitors, who are most involved in water sports, spas, events, tennis, golf and casinos; (3) Passive-curious visitors, who prefer to walk, go out to eat, visit historical sites, enjoy the nightlife and shop; and (4) Multiple visitors, who like to walk, go out in the afternoon, eat, and visit historical and cultural places. Similarly, [Rid et al. \(2014\)](#) segmented tourists by motivations and found four groups: (1) heritage and nature seekers, highly motivated to visit natural and cultural sites; (2) multiple-experience seekers, who do not show attraction to the sun and beach activities, but value experiences such as authentic rural experiences, heritage/nature or learning local dances and languages; (3) multiple-experiences and beach seekers, with high motivations in almost all factors, including the sun and the beach, activities in nature such as bird watching and fishing; however, their interest is moderate. Finally, (4) sun and beach seekers are drawn to swimming and sun and beach tourism more than the other groups. In a similar study, [Sung et al. \(2016\)](#) grouped foreign tourists into five segments according to their motivations in Taiwan: landscape/knowledge seekers, accessibility/

expense seekers, relaxation/relationship seekers, novelty/experience seekers and sports/service seekers.

From another perspective, [Lee et al. \(2018\)](#) classified tourists into four groups according to their recreational experiences on the island of Liuku, Taiwan. (1) The multi-experience recreationists, who enjoy all the constructions of recreational experiences; (2) the estheticians, with the highest scores in experiential aesthetics and the lowest in experiential learning; (3) the hedonists, who scored the lowest in recreation experiences; (4) finally, knowledge seekers, likely to have a more aesthetic appreciation and learning experiences.

In another worldwide study, [Onofri and Nunes \(2013\)](#) identified only two segments of tourists: greens, who choose a coastal destination because they have a strong preference for cultural and natural environments; and beach lovers, who favor the beach.

In more current studies, some authors propose similar groups based on this classification; for example, [Carvache-Franco et al. \(2020a\)](#), in the city of Manta, Ecuador, found: (1) Beach lovers, highly motivated to rest and enjoy the sun, the beach and entertainment activities; (2) Eco-coastal visitors, who, in addition to being drawn towards rest and sun and the beach, enjoy the typical gastronomy and the attractions of the city; and (3) multi-purpose travelers, motivated to get involved in all available attractions. Similarly, [Carvache-Franco et al. \(2020b\)](#) identified two visitor segments in Manta, Ecuador. (1) Beach lovers, motivated by enjoying the sun and the beach and associated with the “sun and beach” motivational dimension; and (2) the multiple coastal motives, highly drawn by all motivational variables; therefore, this group is related to all the motivational dimensions.

The review of these previous studies shows the relevance of market segmentation in coastal cities. Hence, it is crucial to carry it out to understand the demand better and improve the services offered. Although there are multiple criteria to segment the market, frequent groups have been identified, such as sun and beach, multiple motives and eco-coastal visitors.

2.4 Loyalty in coastal cities

In the tourism sector, if visitors have good experiences in a destination, they are more likely to return to the same place in the future ([Kim et al., 2013](#); [Thiumsak and Ruangkanjanases, 2016](#)). The concept of loyalty has been recognized as one of the most important indicators of success in the marketing literature ([Bauer et al., 2002](#); [La Barbera and Mazursky, 1983](#); [Pine et al., 2010](#); [Turnbull and Wilson, 1989](#)). In this sense, [Assaker et al. \(2011\)](#) used the intention to revisit as the central concept and modeled its relationship with the search for novelties, image and satisfaction.

Among the main findings that several authors have identified on this topic, [Goffi et al. \(2019\)](#) established that sustainability affects large-scale coastal package tourists' satisfaction and intentions to return. [Huyen and Nghi \(2019\)](#) found that novelty positively impacts visitor loyalty in marine and coastal adventure tourism on the island of Kien Giang, Vietnam. Likewise, in Phuket, Thailand, [Sangpikul \(2018\)](#) identified that local people's hospitality and beach attractions are crucial factors that affect visitor loyalty to island destinations.

[Fianto \(2020\)](#) identified that service quality and brand experience have a significant effect on the intention to revisit a destination. Additionally, this study showed that visitor satisfaction mediated the relationship between the brand service quality and the return intention. Similarly, [Alipour et al. \(2020\)](#) found that destination image positively impacted tourists' attitudes. Visiting and word-of-mouth intentions improved by improving tourists' attitudes towards 3S tourism (sun, sand and sea). In another study, [Prayag \(2012\)](#) assessed the influence of socio-demographic characteristics on loyalty and highlighted three aspects that improve revisit intentions: natural environment, reputation and people's kindness. Regarding the segments *satisfaction* and *loyalty*, for [Carvache-Franco et al. \(2020b\)](#), tourists with higher motivation levels also have higher satisfaction levels and intentions to return; therefore, tourists with multiple motivations were the most satisfied in a coastal and marine destination. Similarly, for [Carvache-Franco et al. \(2021\)](#), the multiple motives segment

obtained the highest levels of intention to return, recommend and provide positive feedback about the destination when compared to other groups.

To sum up, several previous findings have tried to relate motivations to loyalty in coastal cities. Still, to date, no results have established the relationship between segments and loyalty in coastal cities in times of health crises, such as the COVID-19 pandemic. However, the *multiple motives* segment has shown the highest loyalty in the previous findings documented in the literature.

3. Methodology

3.1 Study area

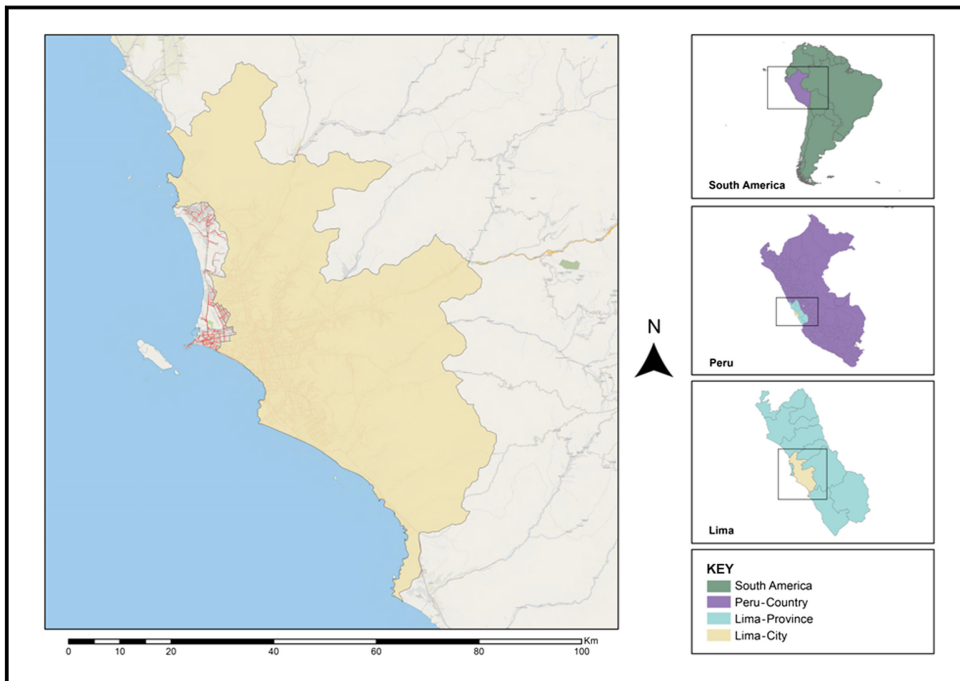
Lima, Peru's capital city, is geographically located in the coastal area of the country. It offers tourists a great variety of cultural attractions and sun and beach activities (Carvache-Franco *et al.*, 2021). This city was included in the "52 places to go" list by the New York Times (2020). In addition, the *World Travel Awards* (2019) recognized the Swissotel Lima as the best business hotel in the period 2013–2017 and 2019.

Six districts make up the "Green Coast," Lima's coastal area. This place has held different tourist and sporting events, such as the 2019 Pan American Games, beach volleyball competitions, marathons, cycling, speed skating and surfing. The Green Coast offers tourists a service called "Mirabus" to get to know the coastal area. It is a sightseeing tour bus with live guides who explain the characteristics of the beaches and the history of this district. Visitors in the Pacific Ocean side can also enjoy the varied gastronomic offered by the restaurants, such as Rosa Náutica, Qinchá Bar Resto Arte, La Trastienda, Cala, Rústica, Bahía Bordemar, La Panka, among others (See Figure 1).

3.2 The survey, data collection and analysis

The present study used the SurveyMonkey program, an online sample collection tool, to collect the information. The questionnaire applied was developed from different previous works related to

Figure 1 Geographic location of Lima, Peru



motivations and segmentation in coastal cities. It contained 14 questions divided into 3 sections. The first section included visitors' socio-demographic information and characteristics of the trip. The questions were closed-ended, adapted from the study by [Lee et al. \(2018\)](#). The second section dealt with the travel motivations. It contained 16 items, extracted from the study by [Carvache-Franco et al. \(2020b\)](#), [Güzel et al. \(2020\)](#), [Mapingure et al. \(2019\)](#) and [Rid et al. \(2014\)](#). These questions were measured on a five-point Likert scale, ranging from 1, not very important, to 5, very important. The Cronbach's alpha coefficient of the motivation scale was 0.81, indicating good internal consistency. The last section included the loyalty dimensions. These elements were taken from Kim and Park's research ([2017](#)). A five-point Likert scale was also used, ranging from 1, unlikely, to 5, very likely.

The sample was collected in June and July 2020 during the COVID-19 pandemic. The population under study had to meet the following conditions: be over 18 years of age, have visited Costa Verde or the coastal area of Lima and do not reside in the districts of the Costa Verde. The survey was distributed through the social networks, WhatsApp and Facebook. It was sent to the participants in Lima and was even shared with inhabitants of other cities who met the given criteria. Filter survey questions were used in the SurveyMonkey program to ensure that only the people who satisfied the requirements filled out the questionnaire. In addition, a pilot test with 25 surveys was conducted to find errors and improve the questionnaire. Such pilot test was administered in one day, and after that, the questionnaire was validated. The surveys were completed autonomously by the tourists.

The infinite population was used to calculate the sample size and the convenience method to collect the questionnaires. The sample size was made up of 354 valid questionnaires. The margin of error proposed was $\pm 5\%$, with a confidence level of 95% and a variance of 50% to obtain the most reliable results. Factor analysis was used to examine the data, reduce and better interpret the motivational variables. For data extraction, the principal component analysis was used. The factors obtained using this method were the re-scaled eigenvectors of the correlation matrix; therefore, the factor scores were estimated through the standardized scores of the first k components, allowing an adequate solution to be found. A varimax rotation method was used to order the factors. It is an orthogonal rotation method that minimizes the number of variables with high saturations by decreasing the number of variables with high loads by one factor, improving the interpretation of the factors.

Additionally, the Kaiser criterion was used to select the number of factors, only retaining factors with eigenvalues greater than 1, which are the ones that provide information to the factor. Likewise, K -means non-hierarchical clustering was performed to find the different segments according to the motivations. This method aims to partition a set of " n " observations into k groups in which each observation belongs to the group whose mean value is closest. It includes the random initiation of k centroids, the assignment of the observations to the centroids, and the updating of the centroids until they stabilize. This highly used method allows the observations to be grouped so that all those in the same group are the most similar to each other and those belonging to different groups are the most dissimilar.

The Kruskal–Wallis H test was conducted to verify the differences in the means between the segments. The Mann–Whitney U test was applied to identify where these differences lie between the means. The chi-squared test was used to analyze the relationships between the segments and the rest of the variables, including socio-demographic variables and loyalty. In this study, once the data had been collected during the field activity, they were organized, tabulated and analyzed through the SPSS version 22 program.

4. Results

4.1 Sociodemographic aspects of the sample

The sample consisted of 41.5% men and 58.5% women. Of the total, 73.20% were single, 21.8% were married and 5.1% had another type of relationship. Most of the visitors were between 21 and

30 years old (65.3%), followed by those between 31 and 40 (22.6%). The vast majority had university studies (85.6%), followed by postgraduate studies (8.5%). Most of them were students (67.8%) and private entrepreneurs (17.5%); and 37.3% of the tourists liked to travel with friends and 22.9% with family. Most wanted to stay for 1 day and 1 night in the destination (21.1%) and spend between 100 and 140 USD.

4.2 Post-pandemic motivations

A factor analysis was carried out to interpret the results. For data extraction, principal component analysis was used. The varimax rotation method was applied to order the factors with very high or low factor loads. The Kaiser criterion was used to find the number of factors, retaining factors with eigenvalues greater than 1. The correlation matrix is presented in Table 1.

According to Table 1, the motivational items were highly intercorrelated because the determinant was 0.033, which was close to zero, indicating a high intercorrelation between the motivational items. In addition, the variables with very high correlations with each other belonged to the same factor. The Bartlett's sphericity test was also significant ($\chi^2 = 1985.35, p = 0.000$), the use of factor analysis was adequate. The Kaiser–Meyer–Olkin (KMO) index was 0.82, showing a high relationship between the variables; so, factor analysis was appropriate. The four factors that represented 58.37% of the total variance were taken into account. The Cronbach's alpha of the factors ranged from 0.95 to 0.50, indicating good reliability. Factor loadings ranged from 0.52 to 0.97; therefore, all were above the critical value of 0.50 suggested by Hair *et al.* (2010). Therefore, all the items were included in the first analysis, and it was not necessary to exclude any item and repeat the analysis. Table 2 shows the results.

According to the results of Table 2, the first post-pandemic motivational factor was called “novelty and escape.” It was related to finding new things, which are not normally found, with marine wildlife experiences, historical attractions and with escape. It included 29.64% of the total variance, making it the most important factor. The second factor was named “learning and culture,” and it was associated with learning about myths and legends, learning about traditional dances and local crafts, and the lifestyles of the coastal population. This factor represented 12.75% of the total variance.

Table 1 The correlation matrix

Variable	v1	v2	v3	v4	v5	v6	v7	v8	v9	v10	v11	v12	v13	v14	v15	v16
v1	1	0.92	0.13	0.17	0.02	0.03	0.05	0.06	0.08	0.09	−0.10	0.08	0.14	0.04	0.02	0.07
v2	0.92	1	0.13	0.16	0.00	−0.02	0.04	0.06	0.05	0.06	−0.08	0.06	0.11	−0.01	−0.04	0.02
v3	0.13	0.13	1	0.34	0.27	0.20	0.08	0.14	0.21	0.09	0.07	0.14	0.04	0.01	0.07	0.10
v4	0.17	0.16	0.34	1	0.11	0.07	0.00	0.09	0.14	0.13	0.12	0.07	0.05	−0.05	0.04	0.00
v5	0.02	0.00	0.27	0.11	1	0.44	0.40	0.34	0.42	0.30	0.14	0.36	0.28	0.32	0.40	0.42
v6	0.03	−0.02	0.20	0.07	0.44	1	0.40	0.22	0.37	0.28	0.15	0.41	0.34	0.29	0.34	0.43
v7	0.05	0.04	0.08	0.00	0.40	0.40	1	0.46	0.42	0.30	0.27	0.40	0.25	0.33	0.36	0.38
v8	0.06	0.06	0.14	0.09	0.34	0.22	0.46	1	0.40	0.34	0.24	0.40	0.22	0.30	0.30	0.33
v9	0.08	0.05	0.21	0.14	0.42	0.37	0.42	0.40	1	0.42	0.31	0.49	0.29	0.30	0.28	0.42
v10	0.09	0.06	0.09	0.13	0.30	0.28	0.30	0.34	0.42	1	0.41	0.44	0.24	0.26	0.28	0.32
v11	−0.10	−0.08	0.07	0.12	0.14	0.15	0.27	0.24	0.31	0.41	1	0.32	0.03	0.10	0.13	0.11
v12	0.08	0.06	0.14	0.07	0.36	0.41	0.40	0.40	0.49	0.44	0.32	1	0.35	0.31	0.27	0.50
v13	0.14	0.11	0.04	0.05	0.28	0.34	0.25	0.22	0.29	0.24	0.03	0.35	1	0.32	0.30	0.43
v14	0.04	−0.01	0.01	−0.05	0.32	0.29	0.33	0.30	0.30	0.26	0.10	0.31	0.32	1	0.29	0.33
v15	0.02	−0.04	0.07	0.04	0.40	0.34	0.36	0.30	0.28	0.28	0.13	0.27	0.30	0.29	1	0.46
v16	0.07	0.02	0.10	0.00	0.42	0.43	0.38	0.33	0.42	0.32	0.11	0.50	0.43	0.33	0.46	1

Note(s): Variable description: v1: To visit a destination that keeps the social distancing rules; v2: Safety and protection; v3: To be in a continuously disinfected accommodation and restaurants; v4: To be attended by service personnel with protective equipment (mask, gloves); v5: To experience marine wildlife sites and national parks; v6: To experience historical attractions; v7: To share interesting experiences with the local population; v8: To stay among the coastal population; v9: The lifestyle of the coastal population; v10: To learn traditional dances; v11: Interest in myths and legends; v12: Interest in local handicrafts; v13: To escape from home and escape from the daily grind; v14: I want to see the things that I normally do not see; v15: To experience novelty and v16: To spend time with family and friends

Table 2 Factor analysis of post-pandemic motivations

Variable	Component				Factors
	1	2	3	4	
To spend time with family and friends	0.740				Novelty and escape
To experience historical attractions	0.656				
To experience marine wildlife sites and national parks	0.653				
To escape from home and escape from the daily grind	0.645				
To experience novelty	0.642				
I want to see the things that I normally do not see	0.570				
To share interesting experiences with the local population	0.516				
Interest in myths and legends		0.815			Learning and culture
To learn traditional dances		0.697			
Interest in local handicrafts		0.551			
The lifestyle of the coastal population		0.541			
To stay among the coastal population		0.523			Destination safety
Safety and protection			0.965		
To visit a destination that keeps the social distancing rules			0.965		
To be in a continuously disinfected accommodation and restaurants				0.820	Service safety
To be attended by service personnel with protective equipment (mask, gloves)				0.738	
Cronbach's α	0.794	0.746	0.952	0.503	
Eigenvalue	4.742	2.040	1.394	1.163	
Variance explained (%)	29.639	12.751	8.713	7.268	
Cumulative variance explained (%)	29.639	42.390	51.103	58.372	

The third post-pandemic motivational factor was called “destination safety” and was related to the characteristics of the destination that make people feel safe and protected and visits to sites with social distancing rules. It included 8.71% of the total variance. Finally, the fourth factor was named “service safety” and was associated with the safety measures taken in services, including accommodation and restaurants, and personnel with protective equipment, such as masks. This factor represented 7.27% of the total variance.

4.3 Post-pandemic segmentation

A *K*-means non-hierarchical clustering was carried out under the criterion of maximizing the variance between the different segments and minimizing the variance within each typology. The best solution was the one that established two clusters (See [Table 3](#)).

According to [Table 3](#), the first post-pandemic segment is “safety seekers,” with higher scores for safety measures both at the destination and in services, such as accommodation and restaurants. This demonstrates the importance of safety-related factors for post-pandemic segmentation since these factors are unpredictable in the formation of the “safety seekers” segment. Such segment

Table 3 Motivational segmentation

Factors	Cluster 1: safety seekers	Cluster 2: multiple motives
Destination safety	4.0	4.3
Service safety	4.1	4.5
Novelty and escape	2.6	4.4
Learning and culture	2.5	3.9

included 88.39% of the sample, making it the most representative group. The second post-pandemic segment was the “multiple motives,” with high scores for all motivational dimensions. This group was motivated by safety and other reasons such as novelty and escape, and learning and culture. It included 11.61% of the sample. Therefore, safety measures are also crucial for this segment.

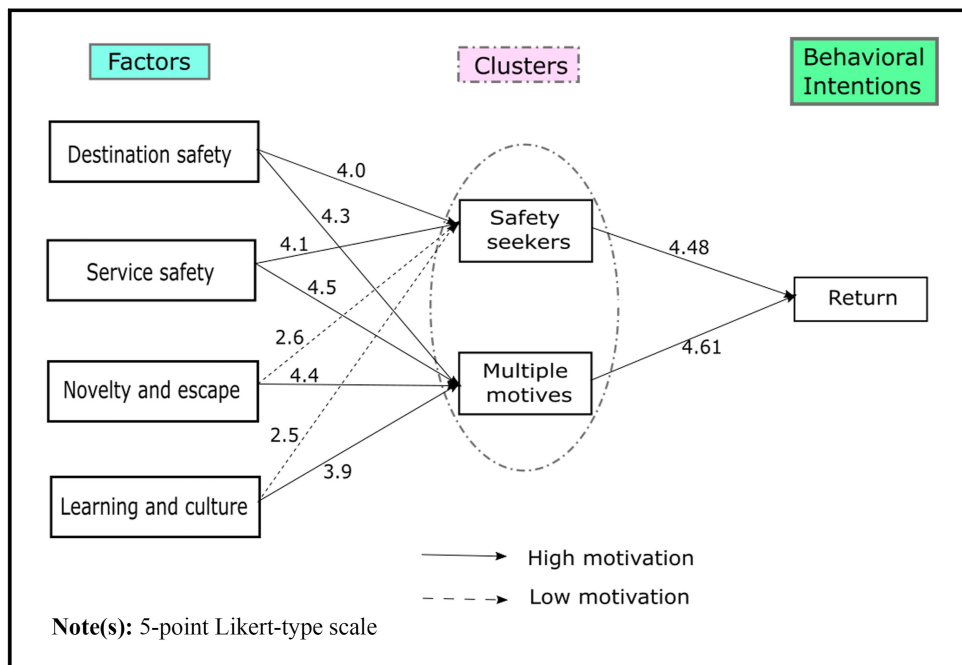
4.4 Return intentions segmentation

Pearson’s chi-squared test was used to analyze the significant differences between the two segments’ return intentions (See Table 4).

According to Table 4, the multiple motives segment has higher return intentions than the other group, so it is considered an important post-pandemic segment in coastal cities. Figure 2 graphically shows the motivations and segmentation of demand in relation to return (See Figure 2).

Variable		Cluster 1: safety seekers (%)	Cluster 2: multiple motives (%)	Total (%)	χ^2
I intend to revisit a coastal destination	A little bit	0.3		0.3	12.740; $p < 0.05$
	A little less	1.0		0.8	
	Neither much nor little	1.3	7.3	2.0	
	Quite	45.5	24.4	43.1	
	A lot	51.9	68.3	53.8	
Total		100.0	100.0	100.0	

Figure 2 Motivation and segmentation



5. Discussion

This study aimed to identify the post-pandemic motivations in coastal cities. In this regard, four dimensions were found: “novelty and escape,” “learning and culture,” “destination safety” and “service safety.”

These results are consistent with the previous literature. Jeong (2014) identified *novelty and escape*, as found in this research. Likewise Sastre and Phakdee-Auksorn's (2017) established *escape from the daily routine and the environment*, similar to our *novelty and escape* factor. In addition, our *learning and culture* dimension has been previously found by Yiamjanya and Wongleedee (2014) as *learning a new culture* and by Rid et al. (2014) as *heritage and nature and authentic rural experience*. Güzel et al. (2020) identified *curiosity*, and *relaxation and escape*, which are similar to our *novelty and escape*, and *learning and culture* dimensions. Finally, Carvache-Franco et al. (2020b) established *heritage and nature*, and *learning and novelty*, which are closely related to this study's *novelty and escape*, and *learning and culture* factors.

This research contributes to the current literature by finding two new post-pandemic motivational dimensions in coastal cities: “destination safety” and “service safety.” It means that feeling safe in the destination and with its services influences tourists' post-pandemic motivations. These findings represent a new and important addition to the scientific literature.

Another objective was to establish a post-pandemic demand segmentation in coastal cities. In this sense, two segments were found: “safety seekers,” motivated by safety both at the destination and in services, and “multiple motives,” driven by several reasons simultaneously, among them, safety, novelty and escape, and learning and culture.

Similar findings have been established in previous studies. Rudež et al. (2013) identified the *multiple visitors*, and Lee et al. (2018) the *multi-experience recreationists*, both similar to our *multiple motives* segment. Likewise, Rid et al. (2014) found *multi-experience seekers* and *multi-experience and beach seekers*, which relate to our *multiple motives* segment. Carvache-Franco et al. (2020a) identified the *multiple-purpose travelers*, and Carvache-Franco et al. (2020b) established the *multiple coastal motives* cluster, both similar to our *multiple motives*.

This study contributes to the academic literature by showing a new post-pandemic segment of tourists that will visit coastal cities, called “safety seekers.” Therefore, the destination and the services offered must be adapted to the characteristics of this group, who wants to feel safe in coastal cities. These findings shed light on this post-pandemic demand segment, new to the academic literature.

Regarding loyalty, the multiple motives group had higher return intentions than the other group, making it an important post-pandemic segment in coastal cities. Some authors, such as Huyen and Nghi (2019), have found that novelty positively impacts loyalty, a motivation that is also part of our multiple motives group. In addition, previous findings have highlighted that the multiple motives cluster has greater loyalty (Carvache-Franco et al., 2021); however, in this study, the multiple motives segment is, among other reasons, motivated by the safety measures of the destination and its services. This would mean that safety is an essential component of tourists' loyalty, representing a contribution to the scientific literature. Another contribution is having found that travel has changed in the time of COVID-19, that is to say now both the motivations and the segments are related to safety for travelers at destinations. Similar results have been found in studies such as Khan et al. (2020a, b), (2021), Zheng et al. (2021).

6. Conclusions

Tourism in coastal cities is related to walking on the beach, water sports, beach games, flora and fauna sighting, navigation, gastronomy, concerts and recreational activities. There are four post-pandemic motivational dimensions in coastal cities: “novelty and escape,” “learning and culture,” “destination safety” and “service safety.” Likewise, there are two post-pandemic segments in

coastal cities: “safety seekers” motivated by safety at the destination and in services, and “multiple motives” drawn to several reasons simultaneously, including safety, novelty and escape, and learning and culture.

As theoretical implications of post-pandemic motivations in coastal destinations, previous authors such as Carvache-Franco *et al.* (2020b), Güzel *et al.* (2020), Jeong (2014), Rid *et al.* (2014), Sastre and Phakdee-Auksorn (2017), and Yiamjanya and Wongleedee (2014) have identified similar factors, but the contribution of this study is to have found two new dimensions in coastal cities, namely, “destination safety” and “service safety.” Regarding the segments, the present research has found similar groups in other investigations such as in Carvache-Franco *et al.* (2020a, b), Lee *et al.* (2018), Rid *et al.* (2014), Rudež *et al.* (2013); however, this study found a new group called safety seekers, as a contribution to academia. Another contribution is to contribute to the theory that travelers have changed in their motivations and their segments, now seeking safety in coastal destinations (Khan *et al.*, 2020a, b, 2021; Zheng *et al.*, 2021).

As practical implications, since coastal cities have natural and cultural attractions appealing to many travelers, they should adopt the necessary biosecurity measures to attract the safety seekers’ segment, who wants to feel safe at the destination and with its services. Similarly, the multiple motives’ segment favors safety over other recreational activities in the coastal area, so it is necessary that activities such as sports on the beach, walks, observation of flora and fauna, navigation and interaction with the community, meet the required biosecurity standards. In Peru, the Shopping and Entertainment Centers Association (ACCEP) established the mandatory use of masks for visitors, hand-washing when entering areas with people and social distancing, as health and safety protocols.

Coastal areas require visitors to wear protective masks, which can only be removed when bathing in the sea. The masks should be kept in an airtight container and only be handled by the person who owns them. When people mobilize, a minimum distance of two meters from each other is required. Another essential condition is to bring alcohol or sanitizing gel to disinfect their hands frequently and wash them with water and soap whenever is needed. There are also alcohol dispensers in the facilities to help them with constant hand cleaning.

Finally, the limitations of the present study were the online sampling and the timing when collecting the data since the demand can vary due to seasonal reasons. According to the segmentation found, it would be important to conduct future studies on the biosecurity protocols of the post-pandemic tourism products.

References

- Alipour, H., Olya, H.G., Maleki, P. and Dalir, S. (2020), “Behavioral responses of 3S tourism visitors: evidence from a Mediterranean Island destination”, *Tourism Management Perspectives*, Vol. 33, 100624, doi: [10.1016/j.tmp.2019.100624](https://doi.org/10.1016/j.tmp.2019.100624).
- Assaker, G., Vinzi, V.E. and O’Connor, P. (2011), “Examining the effect of novelty seeking, satisfaction, and destination image on tourists’ return pattern: a two factor, nonlinear latent growth model”, *Tourism Management*, Vol. 32 No. 4, pp. 890-901, doi: [10.1016/j.tourman.2010.08.004](https://doi.org/10.1016/j.tourman.2010.08.004).
- Bauer, H.H., Grether, M. and Leach, M. (2002), “Building customer relations over the internet”, *Industrial Marketing Management*, Vol. 31 No. 2, pp. 155-163, doi: [10.1016/S0019-8501\(01\)00186-9](https://doi.org/10.1016/S0019-8501(01)00186-9).
- Carvache-Franco, M., Carvache-Franco, W., Carvache-Franco, O., Hernández-Lara, A.B. and Buele, C.V. (2020a), “Segmentation, motivation, and sociodemographic aspects of tourist demand in a coastal marine destination: a case study in Manta (Ecuador)”, *Current Issues in Tourism*, Vol. 23 No. 10, pp. 1234-1247, doi: [10.1080/13683500.2019.1600476](https://doi.org/10.1080/13683500.2019.1600476).
- Carvache-Franco, W., Carvache-Franco, M., Carvache-Franco, O. and Hernández-Lara, A.B. (2020b), “Motivation and segmentation of the demand for coastal and marine destinations”, *Tourism Management Perspectives*, Vol. 34, 100661, doi: [10.1016/j.tmp.2020.100661](https://doi.org/10.1016/j.tmp.2020.100661).
- Carvache-Franco, M., Carvache-Franco, O., Carvache-Franco, W., Alvarez-Risco, A. and Estrada-Merino, A. (2021), “Motivations and segmentation of the demand for coastal cities: a study in Lima, Peru”, *International Journal of Tourism Research*, Vol. 23 No. 4, pp. 517-531, doi: [10.1002/jtr.2423](https://doi.org/10.1002/jtr.2423).

- Fianto, A.Y.A. (2020), "Satisfaction as intervening for the antecedents of intention to revisit: marine tourism context in East Java", *Relasi: Jurnal Ekonomi*, Vol. 16 No. 1, pp. 179-207, doi: [10.31967/relasi.v16i1.347](https://doi.org/10.31967/relasi.v16i1.347).
- Goffi, G., Cladera, M. and Pencarelli, T. (2019), "Does sustainability matter to package tourists? The case of large-scale coastal tourism", *International Journal of Tourism Research*, Vol. 21 No. 4, pp. 544-559, doi: [10.1002/jtr.2281](https://doi.org/10.1002/jtr.2281).
- Gössling, S., Scott, D. and Hall, C.M. (2020), "Pandemics, tourism and global change: a rapid assessment of COVID-19", *Journal of Sustainable Tourism*, Vol. 29 No. 1, pp. 1-20, doi: [10.1080/09669582.2020.1758708](https://doi.org/10.1080/09669582.2020.1758708).
- Güzel, Ö., Sahin, I. and Ryan, C. (2020), "Push-motivation-based emotional arousal: a research study in a coastal destination", *Journal of Destination Marketing and Management*, Vol. 16, 100428, doi: [10.1016/j.jdmm.2020.100428](https://doi.org/10.1016/j.jdmm.2020.100428).
- Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E. and Tatham, R.L. (2010), *Multivariate Data Analysis*, 7th ed., Pearson Education, Upper Saddle.
- Ho, G.T., Ip, W.H., Lee, C.K.M. and Mou, W.L. (2012), "Customer grouping for better resources allocation using GA based clustering technique", *Expert Systems with Applications*, Vol. 39 No. 2, pp. 1979-1987, doi: [10.1016/j.eswa.2011.08.045](https://doi.org/10.1016/j.eswa.2011.08.045).
- Huyen, K.N. and Nghi, N.Q. (2019), "Impacts of the tourists' motivation to search for novelty to the satisfaction and loyalty to a destination of Kien Giang marine and coastal adventure tourism", *International Journal of Social Science and Economic Research*, Vol. 4 No. 4, pp. 2807-2818, available at: <http://www.ijsser.org/>.
- Jeong, C. (2014), "Marine tourist motivations comparing push and pull factors", *Journal of Quality Assurance in Hospitality and Tourism*, Vol. 15 No. 3, pp. 294-309, doi: [10.1080/1528008X.2014.921772](https://doi.org/10.1080/1528008X.2014.921772).
- Kaushal, V. and Srivastava, S. (2020), "Hospitality and tourism industry amid COVID-19 pandemic: perspectives on challenges and learnings from India", *International Journal of Hospitality Management*, Vol. 92, 102707, doi: [10.1016/j.ijhm.2020.102707](https://doi.org/10.1016/j.ijhm.2020.102707).
- Khan, A., Bibi, S., Lorenzo, A., Lyu, J. and Babar, Z.U. (2020a), "Tourism and development in developing economies: a policy implication perspective", *Sustainability*, Vol. 12 No. 4, p. 1618, doi: [10.3390/su12041618](https://doi.org/10.3390/su12041618).
- Khan, A., Bibi, S., Lyu, J., Alam, M., Khan, M.M. and Nurunnabi, M. (2020b), "The quest of tourism and overall well-being: the developing economy of Pakistan", *PSU Research Review*, Vol. 5 No. 2, pp. 120-140, doi: [10.1108/PRR-07-2019-0022](https://doi.org/10.1108/PRR-07-2019-0022).
- Khan, A., Bibi, S., Lyu, J., Babar, Z.U., Alam, M. and Hayat, H. (2021), "Tourism development and well-being: the role of population and political stability", *Fudan Journal of the Humanities and Social Sciences*, Vol. 15, pp. 89-115, doi: [10.1007/s40647-021-00316-8](https://doi.org/10.1007/s40647-021-00316-8).
- Kim, K.-H. and Park, D.-B. (2017), "Relationships among perceived value, satisfaction, and loyalty: community-based ecotourism in Korea", *Journal of Travel and Tourism Marketing*, Vol. 34 No. 2, pp. 171-191, doi: [10.1080/10548408.2016.1156609](https://doi.org/10.1080/10548408.2016.1156609).
- Kim, S.H., Holland, S. and Han, H.S. (2013), "A structural model for examining how destination image, perceived value, and service quality affect destination loyalty: a case study of Orlando", *International Journal of Tourism Research*, Vol. 15 No. 4, pp. 313-328, doi: [10.1002/jtr.1877](https://doi.org/10.1002/jtr.1877).
- La Barbera, P.A. and Mazursky, D. (1983), "A longitudinal assessment of consumer satisfaction/dissatisfaction: the dynamic aspect of the cognitive process", *Journal of Marketing Research*, Vol. 20 No. 4, pp. 393-404, doi: [10.1177/002224378302000406](https://doi.org/10.1177/002224378302000406).
- Lee, T.H., Jan, F.H., Tseng, C.H. and Lin, Y.F. (2018), "Segmentation by recreation experience in island-based tourism: a case study of Taiwan's Liukiu Island", *Journal of Sustainable Tourism*, Vol. 26 No. 3, pp. 362-378, doi: [10.1080/09669582.2017.1354865](https://doi.org/10.1080/09669582.2017.1354865).
- Mappingure, C., du Plessis, E. and Saayman, M. (2019), "Travel motivations of domestic tourists: the case of Zimbabwe", *African Journal of Hospitality, Tourism And Leisure*, Vol. 8 No. 2, pp. 1-11, available at: https://www.ajhtl.com/uploads/7/1/6/3/7163688/article_22_vol_8_2_2019.pdf.
- Nickerson, N.P., Jorgenson, J. and Boley, B.B. (2016), "Are sustainable tourists a higher spending market?", *Tourism Management*, Vol. 54, pp. 170-177, doi: [10.1016/j.tourman.2015.11.009](https://doi.org/10.1016/j.tourman.2015.11.009).
- Onofri, L. and Nunes, P.A. (2013), "Beach 'lovers' and 'greens': a worldwide empirical analysis of coastal tourism", *Ecological Economics*, Vol. 88, pp. 49-56, doi: [10.1016/j.ecolecon.2013.01.003](https://doi.org/10.1016/j.ecolecon.2013.01.003).

- Orams, M. and Lueck, M. (2016), "Coastal tourism", in Jafari, J. and Xiao, H. (Eds), *Encyclopedia of Tourism*, Springer, pp. 157-158.
- Pine, B.J., Peppers, D. and Rogers, M. (2010), *Do You Want to Keep Your Customers Forever?*, Harvard Business Press, Boston.
- Prayag, G. (2012), "Paradise for who? Segmenting visitors' satisfaction with cognitive image and predicting behavioural loyalty", *International Journal of Tourism Research*, Vol. 14 No. 1, pp. 1-15, doi: [10.1002/jtr.837](https://doi.org/10.1002/jtr.837).
- Qiu, R.T., Park, J., Li, S. and Song, H. (2020), "Social costs of tourism during the COVID-19 pandemic", *Annals of Tourism Research*, Vol. 84, 102994, doi: [10.1016/j.annals.2020.102994](https://doi.org/10.1016/j.annals.2020.102994).
- Rid, W., Ezeuduji, I.O. and Pröbstl-Haider, U. (2014), "Segmentation by motivation for rural tourism activities in The Gambia", *Tourism Management*, Vol. 40, pp. 102-116, doi: [10.1016/j.tourman.2013.05.006](https://doi.org/10.1016/j.tourman.2013.05.006).
- Rudež, H.N., Sedmak, G. and Bojnec, Š. (2013), "Benefit segmentation of seaside destination in the phase of market repositioning: the case of Portorož", *International Journal of Tourism Research*, Vol. 15 No. 2, pp. 138-151, doi: [10.1002/jtr.881](https://doi.org/10.1002/jtr.881).
- Sangpikul, A. (2018), "The effects of travel experience dimensions on tourist satisfaction and destination loyalty: the case of an island destination", *International Journal of Culture, Tourism and Hospitality Research*, Vol. 12 No. 1, pp. 106-123, doi: [10.1108/IJCTHR-06-2017-0067](https://doi.org/10.1108/IJCTHR-06-2017-0067).
- Sastre, R.P. and Phakdee-Auksorn, P. (2017), "Examining tourists' push and pull travel motivations and behavioral intentions: the case of British outbound tourists to Phuket, Thailand", *Journal of Quality Assurance in Hospitality and Tourism*, Vol. 18 No. 4, pp. 437-464, doi: [10.1080/1528008X.2016.1250242](https://doi.org/10.1080/1528008X.2016.1250242).
- Sung, Y.K., Chang, K.C. and Sung, Y.F. (2016), "Market segmentation of international tourists based on motivation to travel: a case study of Taiwan", *Asia Pacific Journal of Tourism Research*, Vol. 21 No. 8, pp. 862-882, doi: [10.1080/10941665.2015.1080175](https://doi.org/10.1080/10941665.2015.1080175).
- Thiumsak, T. and Ruangkanjanases, A. (2016), "Factors influencing international visitors to revisit Bangkok, Thailand", *Journal of Economics, Business and Management*, Vol. 4 No. 3, pp. 220-230, available at: https://www.researchgate.net/profile/Athapol_Ruangkanjanases/publication/283179233_Factors_Influencing_International_Visitors_to_Revisit_Bangkok_Thailand/links/5b11857ba6fdcc4611dbbe36/Factors-Influencing-International-Visitors-to-Revisit-Bangkok-Thailand.pdf.
- Turnbull, P.W. and Wilson, D.T. (1989), "Developing and protecting profitable customer relationships", *Industrial Marketing Management*, Vol. 18 No. 3, pp. 233-238, doi: [10.1016/0019-8501\(89\)90040-0](https://doi.org/10.1016/0019-8501(89)90040-0).
- UNWTO (2021), "2020: the worst year in the history of tourism, with billion less international arrivals", available at: <https://www.unwto.org/es/news/2020-el-peor-ano-de-la-historia-del-turismo-con-mil-millones-menos-de-llegadas-internacionales>.
- World Travel Awards (2019), "South America's leading cultural destination 2019", available at: <https://www.worldtravelawards.com/award-south-americas-leading-cultural-destination-2019>.
- Yiamjanya, S. and Wongleedee, K. (2014), "International tourists' travel motivation by push-pull factors and the decision making for selecting Thailand as destination choice", *International Journal of Social, Education, Economics and Management Engineering*, Vol. 8 No. 5, pp. 1348-1353, available at: <https://pdfs.semanticscholar.org/d9f7/b2d7352a40039f733a012b958417f3fda029.pdf>.
- Yolal, M., Rus, R.V., Cosma, S. and Gursay, D. (2015), "A pilot study on spectators' motivations and their socio-economic perceptions of a film festival", *Journal of Convention and Event Tourism*, Vol. 16 No. 3, pp. 253-271, doi: [10.1080/15470148.2015.1043610](https://doi.org/10.1080/15470148.2015.1043610).
- Zheng, D., Luo, Q. and Ritchie, B.W. (2021), "Afraid to travel after COVID-19? Self-protection, coping and resilience against pandemic 'travel fear'", *Tourism Management*, Vol. 83, 104261, doi: [10.1016/j.tourman.2020.104261](https://doi.org/10.1016/j.tourman.2020.104261).

Corresponding author

Wilmer Carvache-Franco can be contacted at: wcarvach@espol.edu.ec

For instructions on how to order reprints of this article, please visit our website:

www.emeraldgroupublishing.com/licensing/reprints.htm

Or contact us for further details: permissions@emeraldinsight.com