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A segmentation of collaborative tourists in World Heritage Sites



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ABSTRACT

Several previous studies have proposed the segmentation of tourists based on their motivations, their sociodemographic profile and the characteristics of their trip. This study has focused on proposing a segmentation of tourists that uses a peer-to-peer accommodation (p2p) based on their motivations, socio-demographic profile and the characteristics of their trip. This investigation is based on the application of a questionnaire to a representative sample of visitors in the city of Córdoba and who choose a peer-to-peer accommodation. Factorial analysis has been used as a data reduction technique in order to find homogeneous groups from the point of view of the reasons for choosing "peer-to-peer" tourism. The results confirm the existence of four types of p2p tourists clearly differentiated according to the motivations that have led them to choose this type of accommodation. The study shows the profile and preferences relative to the characteristics of the trip for each of the segments detected. Likewise, a high degree of fidelity towards the p2p accommodation modality was detected in the respondents—seven out of ten choose collaborative accommodation.

1. Introduction

Collaborative tourism, also called peer-to-peer tourism or p2p tourism, is part of the sharing economy, which has caused important changes in how people travel, where they stay or how they enjoy the destination. As in the sharing economy, the collaborative tourism usually involves peer-to-peer operations, unlike the traditional tourism industry, where companies manage the offer of hotel establishments. The cocreation between service providers and visitors derives in new experiences for tourists and in their perception of a greater authenticity of the place. Experience economy is discussed (Guttentag, 2015; Tussyadiah, 2016) as a theory that explains the changes that are taking place and that attempts to understand the relationships established between destinations and their visitors.

The main objective of this research is to present an analysis of tourists who visit a city registered as a World Heritage Site by UNESCO, such as the city of Córdoba (Spain), using the peer-to-peer tourism modality. Accordingly, the sociodemographic profile of these tourists, their motivations, their expectations and their level of satisfaction is analyzed. To obtain these results, a questionnaire has been carried out to a representative sample of tourists who travel to the city of Córdoba under the modality of peer-to-peer tourism. The questionnaire raises interesting aspects and allows determining key factors of this tourism modality.

These keys serve as a basis to establish recommendations that allow a greater tourist use of the destination.

2. Background

The World Tourism Organization (UNWTO, 2018) defines tourism as a phenomenon of a social, cultural and economic nature whereby people travel from their place of residence to other areas or countries for different reasons —work, pleasure, etc. When the tools and potentialities of the sharing economy are used in the processes that comprise the phenomenon described to facilitate the co-creation of new experiences to travelers, service providers or managers -public and private- of tourist destinations (Richards, 2016), the expectations of the tourist will be satisfied, thus allowing a closer relationship with the local population. In this way, the authenticity of the experience increases (Dredge and Gyimóthy, 2015) and is called "collaborative tourism", "platform tourism", "p2p tourism" or "tourism 2.0". The increase in connectivity that has led to the emergence of digital platforms has made it possible for millions of users to share access to various goods and services (Tussyadiah, 2015). In this sense, the tourism industry is one of the most affected by the emergence and development of the sharing economy (Pesonen and Tussyadiah, 2017), and has experienced important changes in the ways of traveling, staying or even eating and enjoying what a destination has

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to offer, affecting the traveler's behavior (Szopinski and Staniewski, 2016). In this way, a co-creation process is favored by tourists themselves, service providers and the local population (Richards, 2016). This process of co-creation would lead to more intense and authentic experiences, which constitute a strong attraction for tourists (Dredge and Gyimóthy, 2015). New tourists look for off-the-beaten-track experiences (Matoga and Pawłowska, 2018), and collaborative tourism offers them the possibility of discovering the destination under a new perspective, as well as knowing the image that has traditionally been used to attract mass tourism.

2.1. Motivations in collaborative tourism

Motivation is the internal force that moves individuals to act, and it responds to the tension created by unmet needs (Schiffman et al., 2012). In the field of p2p tourism, the needs that appear in the academic literature with greater frequency are those corresponding to obtaining an economic benefit, to comfort, and to the search for new, more authentic experiences (Razli et al., 2016; Matoga and Pawłowska, 2018), which usually imply a contact or approach to the local population (Bellotti et al., 2015). Hamari et al. (2015) classifies them into two groups: a first group that includes altruistic motivations (concern for the environment, helping others, having contact with the local population, etc.), and a second group that includes selfish or extrinsic motivations (obtaining an economic benefit or comfort). Hamari et al. (2015) concludes that the intrinsic ones are a strong determinant of attitude, but that the extrinsic ones are the ones that most influence the continued use of this type of tourism. Accordingly, Möhlmann (2015) considers that the extrinsic motivations are the ones that determine, mainly, the option for a p2p hosting, and Tussyadiah (2015), in an exploratory study, find that sustainability, community and economic benefits could be the drivers to use a p2p accommodation. In the same way, Wu et al. (2017) state that, for Chinese travellers, cost savings are a strong motivation for p2p accommodation. They also find that curiosity, enjoyment and trust also affect the intention to use this type of accommodation. Even more, the impact of motivations differs from experienced tourists -those who had previous experience with p2p accommodation- to inexperienced tourists. In addition, in a study conducted on Internet users in Finland, Pesonen and Tussyadiah (2017) detected that the motivations of users of p2p accommodation are heterogeneous, and that certain demographic characteristics such as age and frequency of travel can be important drivers, while other socioeconomic aspects such as income level are not a significant factor when choosing a p2p accommodation. In fact, the main motivations detected in the study by Pesonen and Tussyadiah (2017) refer to the economic benefits -savings-, the location of the accommodation or its comfort, but also the interaction with the host and with the local population.

Furthermore, Tussyadiah and Zach (2017) consider that guest motivations differ between hotels and peer-to-peer accommodation experiences. Cleanliness, comfort, convenience of location (nearness to atractions, restaurants or transports, for example), promptness and courtesy of service, safety and security, friendliness of employees, staff service quality, room quality, general amenities, business services, price, facilities, image, food and beverage are found as the most important factors to select a hotel or even to repeat visit (Knutson, 1988; Rivers et al.,1991; Choi and Chu, 2001; Dolnicar and Otter, 2003; Lockyer, 2005). On the other hand, price, locational advantages (nearness to restaurants, shops, transports, and so on), home benefits (for example, household amenities or larger space), social experience (social appeal, enjoyment, novelty aspect), local experience (authentic experience, have access to local information and tips, connecting with locals in the area), and sharing economy philosophy (sustainability, efficient use of unused/infrautilized resources) are the main motivations in the accommodation sharing economy described by Mahadevan (2018). Also, Tussyadiah and Zach (2017) emphasize the hosts making guests feel welcome in their homes: feeling welcome is associated with higher rating scores and

consequently, more people would be willing to use the p2p accommodation. Similarly, Liang et al. (2018) found that p2p accommodation users are not only concerned about the economic aspects but also about the authenticity of the experience.

In accordance with the review of the literature, the hypothesis to examine would be the following:

H1. The motivations to opt for the "peer-to-peer" tourism are heterogeneous.

2.2. Segmentation in collaborative tourism

Market segmentation —grouping the clients into subgroups that share certain characteristics and from which similar behaviors are expected—allows designing strategies and offering a product more in line with the needs of the buyer. The use of segmentation increases the efficiency with which the demand is satisfied, and the profitability of the commercialization process (Park and Yoon, 2009). In this way, there are two types of segmentation: a priori and posteriori. A priori segmentation uses techniques such as factor-cluster statistical analysis to determine the existing segments and their size. The second option is used when the market segments are already known (Bieger and Laesser., 2002; Park and Yoon., 2009; Dutta and Bhattacharya, 2018).

In the tourist industry, the segmentation of travelers has been made based on different criteria, such as demographic (Morley, 1995) and geographical characteristics (Reid and Reid, 1997; Moscardo et al., 2001), behavior, lifestyle, personality or the search for benefits (Gitelson and Kerstetter, 1990; Loker and Perdue, 1992; Bieger and Laesser, 2002; Huh et al., 2006; Park and Yoon., 2009). In this sense, Leisen (2001) proposes the image of the destination that tourists have as a basis for segmentation, given the importance it has in the success or failure of the tourist destination. On the other hand, Mok and Iverson (2000) suggests using spending at destination as a basis for segmentation. Other authors (Crompton, 1979; Oh et al., 1995; Loker-Murphy, 1997; Bieger and Laesser, 2002; Park and Yoon, 2009) consider that motivations are one of the best bases for segmenting tourists who visit a destination.

Recently, Ryu et al. (2018) carry out a study on the behavior of travellers, and they identify six groups ("shopaholic", "budget explore", "long-term traveller", "trend setter", "resort addict" and "social tripper") and find that their usage of the online tourism is remarkably different. In the same way, Del Chiappa et al. (2018) identify three groups ("distrustful tourists", "untrusted tourists" and "social web tourists", based on the trust in different peer-to-peer travel applications. They also find that as people travel more and use less internet to decide, they distrust more about the content generated by other users. Furthermore, based on the motivations for using peer-to-peer accommodation, Pesonen and Tussyadiah (2017) identify two groups that they call "pragmatics" (those who use P2P accommodation because is more convenient to them) and "idealists" (those who use P2P accommodation for social reasons mainly). Park and Yoon (2009) also use the motivation as criteria in order to make a segmentation in rural tourism in Korea. They find four groups: "family togetherness tourists", "passive tourists", "want-it-all tourists" and "learning and excitement tourists". The groups show different socio-economic characteristics, behavior and activity preferences. Finally, Guttentag et al. (2018) carry out a study about motivations to choose Airbnb. They develop a motivation-based segmentation and identify five groups: Money Savers, Home Seekers, Collaborative Consumers, Pragmatic Novelty Seekers, and Interactive Novelty Seekers. They find significant differences related to the type of Airbnb accommodation, the number of nights, the size of the travel group and the presence of children.

In accordance with the review of the literature, the hypothesis to examine would be the following:

 ${\bf H2.}$ Considering the motivations or reasons to choose the "peer-to-peer" tourism, there are different types of tourists.

2.3. Sociodemographic characteristics of the tourist

The sociodemographic profile can be associated with the motivations of the visitors (Kim et al., 2008a; Kim et al., 2008b; Adam et al., 2017; Ma et al., 2018; Suttikun et al., 2018) to choose a specific destination or travel mode. For Leonidou et al. (2015), the sociodemographic characteristics of a tourist moderate those factors that influence the behavior of tourists. On the other hand, there are studies (Milman and Tasci, 2017) that have not found any relationship between the motivations and behavior and the sociodemographic profile of the tourist. Also, Barreira and Cesário (2018) highlights the differences in the sociodemographic profile detected in the study based on the season of the year analyzed.

2.4. Characteristics of the trip

The characteristics of the trip —duration, previous visit to the destination, size of the travel group, etc.— have been studied in relation to the motivations or expenditure during the trip. In this sense, several studies have detected the relationship between the tourist's expenses at the destination and different variables related to the trip such as the length of stay or the size of the travel group (Downward and Lumsdon, 2003; Jang et al., 2003; Fredman, 2008; Thrane and Farstad, 2011), the overnight stay at destination (Kim et al., 2008b) or the composition of the travel group (Wang et al., 2006; Campo-Martínez et al., 2010).

3. Methodology

3.1. Questionnaire and proceeding

This investigation is based on the application of a questionnaire to a representative sample of visitors in the city of Córdoba and who choose a peer-to-peer accommodation. We have not obtained approval from an ethical committee prior to this study. From an initial questionnaire and through successive selections, a pre-test was carried out with an initial sample of tourists of similar characteristics to the final sample, and the final format was reached. The questionnaire used in this research is based on different previous works (Botsman and Rogers, 2010; Gansky, 2010; Bardhi and Eckhardt, 2012; Hamari et al., 2015; Bellotti et al., 2015; Möhlmann, 2015; Razli et al., 2016; Guttentag et al., 2018). The final version of the questionnaire sought the maximum understanding of the questions to achieve the objectives set in the research, as well as the maximum possible concretion so as not to extend the interview too long. The questionnaire was presented in three languages: Spanish, English and French. The questionnaire was divided into three large blocks. The first intended to collect the characteristics of the visit. Thus, people were asked about the accommodation modality or the planned daily expense, among others. A second block focused on the motivations to opt for the peer-to-peer tourism, the factors that determine the choice of accommodation, the degree of satisfaction and future expectations regarding the type of accommodation used. Finally, a final section that included general characteristics of tourists, such as age, gender or level of education. In the questionnaire, questions with yes/no responses, questions with open and closed answers, and questions with a 5-point Likert scale (1 = not very important, 5 = very important) were used. Questions were asked in a positive and negative sense to avoid acquiescence.

3.2. Data collection

The questionnaires were conducted by a team of interviewers linked to the University of Córdoba. The questionnaires were passed in the three indicated languages - Spanish, French and English - chosen according to the native language and place of origin of the visitors so as not to exclude anyone. The tabulation of the data was also done by the collaborating team. A total of 711 questionnaires, of which 679 were valid, were completed between the months of October 2017 and May 2018. The questionnaires were conducted in five questionnaire points located

within the historic center of the city in order to collect the widest possible range of people and situations. The selection of the interviewees was made by convenience sampling, commonly used in this type of research where the sample is available to be questionnaireed in a given time and space (Finn et al., 2000). It was not stratified neither by gender, age, education, place of origin or by any other variable. Tourists were asked if they had stayed at least one night in Córdoba, using a peer-to-peer accommodation. This was the procedure of selection of those tourists who, having traveled to the destination under the peer-to-peer modality, were willing to answer in a time interval of 10 min. The rejection rate to the questionnaire was low and not significant depending on any variable.

3.3. Sampling and sampling error

The specific framework of our study is the tourist who goes to a cultural destination such as the city of Córdoba, who stays overnight in the city and travels under the peer-to-peer modality. This tourism is difficult to analyze due to the lack of statistical data. Since the size of the sample is unknown, if this investigation had used a random sampling, the sample error for a confidence level of 95% would be $\pm 3.76\%$.

3.4. Data analysis

The tabulation of the data was also done by the collaborating team. The statistical analysis of the data has been carried out using the SPSS v. 23. Statistics have been applied to assess the reliability of the questionnaire responses (Cronbach's alpha). Factorial analysis has been used as a data reduction technique in order to find homogeneous groups from the point of view of the reasons for choosing "peer-to-peer" tourism. Taking as a reference the motivations extracted from the factorial analysis, the multivariate technique of cases grouping (hierarchical conglomerates and K-media conglomerates) was used in order to analyze the similarity between the respondents. The discriminant analysis technique has been used to validate the grouping of the cases obtained in the cluster analysis. From the groups or segments obtained, statistical and association measures have been applied that provide the necessary information to study the possible patterns of association between variables from a twodimensional contingency table. Likewise, non-parametric statistical procedures (H of Krustal-Wallis and the U of Mann-Whitney) were used in order to analyze significant differences between groups in the sample.

4. Results

4.1. Motivations to choose peer-to-peer tourism

The reasons were reflected in one of the questions from the questionnaire. A scale that sought to gather the most frequent and relevant reasons analyzed in previous research was designed, adapting them and taking into account the specific characteristics of the destination (Botsman and Rogers, 2010; Gansky, 2010; Bardhi and Eckhardt, 2012; Hamari et al., 2015; Guttentag et al., 2018). After the completion of a pretest a total of eleven items were selected on a Likert scale of 5 points—1 being little and 5, a lot— to determine the relative importance of a series of factors in their decision to opt for the peer-to-peer tourism.

The different items are shown in Table 1. The Cronbach alpha coefficient of the final scale reaches a value of 0.763, indicative of a meritorious internal consistency between the elements of the scale. The critical level (p) associated with Friedman's statistical χ^2 (848,683) of the analysis to test the null hypothesis that all the elements of the scale have the same mean is less than 0.001. Consequently, the hypothesis that the means of the elements are equal is rejected.

Based on the reasons or variables shown in Table 1, a factorial analysis was carried out, that allowed us to extract three motivational dimensions for which tourists opt for the peer-to-peer travel modality. The realization of this analysis provides an indirect indicator of the importance that visitors give to the different factors that condition the peer-to-

Table 1
Factorial matrix of rotated components – Motivations to choose "peer to peer" tourism.

Motivations	Compone	ents	Motivational	
	1	2	3	dimensions
I meet new people	0.779			Social
I find it easy to integrate with the locals	0.763			
I help social and local economy	0.683			
I can stay longer at my destination	0.584			
Enjoy more space than in a hotel		0.773		Comfort
I have access to services I can't find in a hotel		0.755		
I am more confortable		0.610		
I feel like at home		0.588		
I have more money to spend in the journey			0.751	Economic
The price is better			0.725	
There are more possibilities to choose from			0.488	
Eigenvalues	2.229	2.095	1.738	
% variance explained	20.263	19.048	15.796	
% variante cumulative	20.263	39.311	55.107	
KMO	0.787			
Bartlett's test of sphericity	Chi-squa	red = 1,54	4.614 sig <	0.001

Extraction method: principal component analysis; rotation method: varimax with Kaiser.

Source: Own elaboration.

peer tourism. Although the interest lies in the factorial scores that are derived from these components as a tool to establish the strength of the motivations of each visitor, it is useful to characterize each of the factors extracted

The first of the factors found explains more than 20% of the total variance of the matrix of motivations and social interests. This corresponds to a tourist seeking greater immersion and integration with the culture of the chosen destination. The Cronbach's alpha coefficient (0.730) of the four items that make up this dimension of motivation reveals the reliability of the subscale. The second factor found is related to comfort. The value of Cronbach's alpha coefficient (0.673) also constitutes a reliable subscale. This second dimension explains 19% of the total variance of the motivation matrix. The third factor extracted is related to economic reasons. This dimension explains almost 16% of the total variance of the motivation matrix, also constituting a reliable subscale — Cronbach's alpha (0.583).

These results show the existence of diverse motivational schemes to choose the peer-to-peer tourism as a travel option. Therefore, the first research hypothesis is fulfilled in the sense that the motivations to choose this form of tourism are heterogeneous (H1) (Botsman and Rogers, 2010; Gansky, 2010; Bardhi and Eckhardt, 2012; Hamari et al., 2015; Bellotti et al., 2015; Möhlmann, 2015; Razli et al., 2016; Guttentag et al., 2018).

4.2. Segmentation of the tourists

Each segment of tourists is considered as a group that has the same interest, identical motivations, similar perspectives and similar sociodemographic characteristics. The knowledge of the segmentation of tourists is essential for tourism managers so that the needs of different groups can be better met. In addition, the awareness on the part of the managers of the reasons for each segment allows the service to be provided to adapt and thereby contribute to increase visitor satisfaction.

The study of motivations provides a basis for establishing a segmentation of tourists who choose peer-to-peer tourism as a travel option. Academics recommend the use of a hierarchical clustering method followed by a non-hierarchical method (Hair et al., 2010). Therefore, two

hierarchical algorithms, namely the complete link and the Ward method, were initially applied using square Euclidean distances to identify possible groupings in the data. Both techniques prevail in tourism literature on market segmentation (Dolnicar, 2002). The objective is to identify groups of tourists that are very similar in terms of their interests for peer-to-peer as a travel option. An examination of the resulting agglomeration schedules and the dendrograms suggested four groups. A more detailed examination of the group assignment and group size, and the subsequent analysis using a non-hierarchical K-means clustering algorithm, confirmed that the solution of four clusters was the most appropriate.

Table 2 shows the characterization of the clusters from the means of the eleven items that aims to measure the reasons for choosing peer-topeer as a travel option. The H statistics of Kruskal Wallis allows to contrast that the averages compared are not equal between the different clusters, but it does not specify where the detected differences are. In order to know which, mean differs from the other, the U statistic of Mann and Whitney (1947) was used.

The first of the segments is made up of 19.9% of the questionnaireed tourists, being a group that registers significant high registers in the items related to the economic dimension. They are tourists who seek the economic benefits of peer-to-peer, giving great importance to the price of accommodation. This group has been called economic tourist. The second segment includes 19.0% of the sample and is characterized by noting the highest values in those items related to the comfort dimension. It is a tourist that through peer-to-peer seeks comfort and familiarity, giving great importance to the characteristics of the accommodation. This segment is called comfortable tourist. The third segment is made up of 32.2% of respondents and is one of the segments that registers significant high records in the items related to social reasons. It is a traveler who through the peer-to-peer experience seeks to meet new people and integrate with the local culture. This segment has been called social tourist. The last of the segments is characterized by registering high significant records in most of the items considered. The clear relation with all the extracted motivational dimensions allows to consider that they are an economic-comfortable-social tourist. This group represents 28.9% of the respondents.

The results allow contrasting that, depending on the motivations or reasons for choosing peer-to-peer tourism as a travel option, there are different types of tourists (H2).

4.3. Sociodemographic profile of the peer-to-peer tourist

Table 3 shows the sociodemographic characteristics of the peer-to-peer tourist questionnaireed globally and by identified segments. Of the 679 valid questionnaires, 47.1% were men and 52.9% women, with no significant differences in terms of groups or segments considered. The respondent peer-to-peer tourist is, generally speaking, young, and nearly 70% of the sample is less than 40 years. Older tourists are more representative in segments where comfort and familiarity are more important in their motivation to choose peer-to-peer as a travel option (statistical Kruskal-Wallis = 7.905; p=0.048). Tourists over 40 years usually travel accompanied by family and the younger ones usually do it with friends or colleagues. Among the people who travel alone, their presence is greater in the group of people who are over 60 years old.

The level of education of peer-to-peer tourist is high, as 47.0% of respondents report having a university or graduate degree. There are differences depending on the segments of tourists identified (statistical H of Kruskal Wallis = 21,420, p = 0.001). The segments where comfort and familiarity have a greater relevance show a lower level of academic training. Regarding the professional category of tourists questionnaireed, salaried workers stand out. The question about the monthly level of family income has shown the most reluctancy from the respondents. A total of 40 people out of the 679 valid respondents did not answer despite the amplitude of the intervals proposed in the questionnaire. The tourists who stay in Córdoba with the peer-to-peer modality are characterized by

 Table 2

 Characterization of the clusters from the average of motivations for choosing collaborative tourism.

Motivations	Tourist clusters					H-Kruskal Wallis	
	Economic (average)	Comfortable (average)	Social (averare)	E + C + S (average)	χ^2	Sig.	
I meet new people	1.47 ^(*)	2.25 ^(*)	3.17 ^(*)	2.93 ^(*)	177.282	< 0.000	
I find it easy to integrate with the locals	2.33	2.52 ^(*)	3.64	3.73	205.076	< 0.000	
I help social and local economy	2.16 ^(*)	2.78 ^(*)	3.61 ^(*)	3.60	174.891	< 0.000	
I can stay longer at my destination	2.81 ^(*)	2.26 ^(*)	3.61 ^(*)	4.10	213.881	< 0.000	
Enjoy more space than in a hotel	2.19 ^(*)	3.87 ^(*)	2.97(*)	4.21	265.200	< 0.000	
I have access to services I can't find in a hotel	2.37 ^(*)	3.90 ^(*)	2.88 ^(*)	4.17	227.835	< 0.000	
I'm more comfortable	3.32(*)	3.89 ^(*)	3.43 ^(*)	4.48	159.965	< 0.000	
I feel like at home	2.84	3.56	3.28	4.21	139.968	< 0.000	
I have more money to spend in the journey	3.58	2.36	3.39	4.18	228.359	< 0.000	
The price is better	4.71	3.43	3.49	4.55	240.361	< 0.000	
There are more possibilities to choose from	3.43	3.01	3.36	4.48	112.307	< 0.000	

^(*) The values in bold type present significant differences in three of four of the mean clusters. In order to be able to test for the significant differences between the different means the U-Mann-Whitney test was applied.

Source: Own elaboration.

Table 3
Sociodemographic profile of the "peer-to-peer" tourism in Córdoba.

Variables	Categories	Tourist Clusters				
		Economic	Comfortable	Social	Economic Comfortable Social	
Sex (N = 678)	Man	40.7 %	46.1 %	52.3 %	46.8 %	47.1 %
	Woman	59.3 %	53.9 %	47.7 %	53.2 %	52.9 %
Age (N= 678)	<30 years old	37.9 %	34.1 %	45.9 %	41.2 %	40.6 %
	30-39 years old	34.8 %	26.2 %	28.9 %	27.3 %	29.0 %
	40-49 years old	10.6 %	20.6 %	14.9 %	16.7 %	15.7 %
	50-59 years old	10.6 %	11.9 %	7.7 %	11.1 %	10.2 %
	>60 years old	6.1 %	7.2 %	2.6 %	3.7 %	4.5 %
Educational Level (N = 672)	Primary	6.8 %	7.0 %	10.2 %	13.6 %	10.0 %
	Secondary	41.4 %	51.1 %	40.3 %	41.6 %	43.0 %
	University	13.5 %	16.3 %	28.6 %	22.4 %	21.3 %
	Master/PhD	38.3 %	25.6 %	20.9 %	22.4 %	25.7 %
Occupational category ($N = 675$)	Employee	51.7 %	37.6 %	37.3 %	40.0 %	41.1 %
	Businessman	5.9 %	16.4 %	20.9 %	14.7 %	15.1 %
	Student	11.9 %	14.8 %	11.2 %	18.0 %	14.2 %
	Civil sevant	13.4 %	11.7 %	12.8 %	12.0 %	12.4 %
	Self-employed	10.4 %	8.6 %	6.6 %	8.8 %	8.4 %
	Unemployed	3.0 %	4.7 %	7.7 %	2.8 %	4.6 %
	Retired	3.0 %	2.3 %	2.0 %	1.4 %	2.1 %
	Housewife	0.7 %	3.9 %	1.5 %	2.3 %	2.1 %
Income $(N = 639)$	<700 €	8.0 %	5.8 %	9.1 %	12.0 %	9.2 %
	700 € to 1000 €	19.2 %	17.5 %	25.8 %	22.1 %	21.8 %
	1001 € to 1500 €	16.8 %	17.5 %	12.4 %	14.9 %	15.0 %
	1501 € to 2500 €	8.0%	10.0 %	15.6 %	19.2 %	14.2 %
	2501 € to 3500 €	33.6 %	33.4 %	26.3 %	26.5 %	29.2 %
	>3500 €	14.4 %	15.8 %	10.8 %	5.3 %	10.6 %
Tourist origin (N = 669)	Andalucía	17.3 %	21.3 %	22.3 %	27.3 %	22.7 %
	Madrid	31.6 %	23.6 %	20.2 %	14.4 %	21.2 %
	Cdad. Valenciana	11.3 %	6.3 %	9.3 %	11.6 %	9.9 %
	Castilla La Mancha	6.8 %	4.7 %	6.7 %	9.3 %	7.2 %
	Cataluña	4.5 %	3.9 %	3.1 %	4.6 %	4.0 %
	Castilla y Leon	3.0 %	3.9 %	5.2 %	2.3 %	3.6 %
	Others	25.6 %	36.2 %	33.2 %	30.6 %	31.4 %

Source: Own elaboration.

having a medium-high purchasing power. Of the visitors who answered, 31.0% declared having an income lower than 1,000 ε monthly compared to 54.0% who declare to earn more than 1,500 ε . In this sense, there are significant differences if the level of income with the motivations to choose the peer-to-peer tourism as a travel option are related (statistical H of Kruskal Wallis = 22,336, p = 0.001). The average income declared by the comfortable tourist is 12% higher than the average and 24% higher than that declared by the social tourist.

As for the place of origin of tourists, the vast majority are national, 89.0% against only 11.0% of foreigners. Among them, those from Andalusia (22.7%), Madrid (21.2%), Comunidad Valenciana (9.9%) and Castilla-La Mancha (7.2%) stand out. In relation to foreign tourists, the

presence of French (2.9%) and Italians (2.0%) stands out.

4.4. Characteristics of the trip peer-to-peer tourism in Córdoba

The degree of fidelity towards the peer-to-peer modality as a lodging option among the respondents is high (Table 4). Thus, 7 out of 10 respondents had already used it prior to their stay in Córdoba. Among these visitors, 24.2% declared that they travel four or more times a year under this type of tourism, and for 85.8% it is the preferred accommodation option. There are no significant differences depending on the segments of tourists identified (statistical H of Kruskal Wallis = 2.432, p = 0.488). The average duration of the trip is 3.8 days, being very similar between

 Table 4

 Characteristics of the trip "peer-to-peer" tourism.

Variables	Categories	Tourist Clusters				
		Economic	Comfortable	Social	Economic Comfortable Social	
Previous use (N = 676)	Yes	83.5 %	68.2 %	73.1 %	69.6 %	73.1 %
	No	16.5 %	31.8 %	26.9 %	30.4 %	26.9 %
Times per year (N= 472)	Between 1 and 3	76.2 %	78.8 %	78.9 %	71.0 %	75.8 %
	Between 4 and 6	9.0 %	16.5 %	18.2 %	26.9 %	20.8 %
	More than 6	4.8 %	4.7 %	2.9 %	2.1 %	3.4 %
Length Stay $(N = 676)$	Just for the weekend	30.1 %	26.6 %	31.0 %	33.9 %	30.9 %
	Long weekend (<5d)	63.9 %	60.9 %	49.7 %	53.7 %	55.9 %
	Between 5 and 9 days	6.0 %	2.5 %	17.8 %	11.9 %	12.6 %
	More than 10 days	0.0 %	0.0 %	1.5 %	0.5 %	0.6 %
Accomodation type $(N = 677)$	Whole house	72.4 %	75.2 %	63.3 %	76.6 %	71.6 %
yr ,	Private room	23.1 %	12.4 %	24.0 %	14.2 %	18.5 %
	Shared room	2.2 %	6.2 %	9.7 %	5.5 %	6.2 %
	Just sleep (couchsurfing)	0.7 %	0.8 %	0.5 %	0.0 %	0.4 %
	Home swapping	0.9 %	0.0 %	0.5 %	1.9 %	0.9 %
	Others	0.7 %	5.4 %	2.0 %	1.8 %	2.4 %
Accomodation location ($N = 679$)	Historic district	52.6 %	42.6 %	45.2 %	37.2 %	43.6 %
	City center	29.6 %	27.9 %	32.5 %	39.0 %	33.1 %
	Rest of the city	14.1 %	18.6 %	13.2 %	15.6 %	15.2 %
	Outskirts	2.2 %	9.3 %	6.6 %	6.9 %	6.3 %
	Others	1.5 %	1.6 %	2.5 %	1.4 %	1.8 %
Contact accomodation owner (N = 669)	Using a web or app	82.8 %	80.5 %	77.7 %	70.8 %	77.0 %
	Personal friendship	11.9 %	15.6 %	12.2 %	17.1 %	14.4 %
	Through friends or acqui	4.5 %	3.1 %	8.6 %	11.6 %	7.7 %
	Others	0.8 %	0.8 %	1.5 %	0.5 %	90.0 %
Daily expenditure ($N = 498$)	Under 20€	37.0 %	22.7 %	31.7 %	33.9 %	31.9 %
	From 21€ to 40€	22.0 %	30.7 %	32.4 %	27.3 %	28.3 %
	From 41€ to 60€	19.0 %	15.9 %	16.6 %	13.9 %	16.1 %
	From 61€ to 80€	11.0 %	14.8 %	6.9 %	10.9 %	10.4 %
	From 81€ to 100€	8.0 %	11.4 %	6.9 %	9.7 %	8.8 %
	Over 100€	3.0 %	4.5 %	5.5 %	4.3 %	4.5 %

Source: Own elaboration.

the different types of tourists (statistical H of Kruskal Wallis = 3,606, p = 0.307). In relation to the modality of accommodation for overnight in the destination, 7 out of 10 visitors declared that they use the whole house (Table 4). Between segments, there are significant differences (statistical H of Kruskal Wallis = 9.193, p = 0.027). Thus, the social tourist resorts to a greater extent to the private and shared room as a form of accommodation.

Considering the location of the accommodation, 7 out of 10 respondents prefer to stay in the historic district and the city center (Table 4). The segment called comfortable tourist shows a greater preference in relation to the rest of the tourists regarding the rest of the city and outskirts (statistical H of Kruskal Wallis = 8.084, p = 0.044).

Regarding the form of contact with the owner of the house to spend the night, the results of Table 4 show that the tourist uses the web and the applications for mobile phones (app) as main sources, followed at a great distance by recommendation by friends and/or acquaintances. The data shows that the new information and communication technologies,

together with the positive experience of other visitors and that recommend its use, play a decisive role in the dissemination of peer-to-peer tourism. The average daily expenditure planned by tourists, including the price of accommodation, amounts to 39 euros, there being no differences between the tourists quiestionnaireed (statistical H of Kruskal Wallis = 4,215, p = 0.239). The average level of expenditure declared by the segment called comfortable tourist is 13% higher than the average, with the lowest register corresponding to the segment called economic tourist, lower by 4%.

4.5. Evaluation of factors to choose a peer-to-peer accommodation in Córdoba

In the questionnaire, a question was incorporated with different items that sought to collect the assessment of certain factors that determine the choice of the peer-to-peer accommodation (Table 5). The alpha Cronbach coefficient (0.634) of the scale reveals a meritorious internal consistency

Table 5
Values of factors to choose accommodation.

Factors	Tourist Clusters				Kruskal Wallis	
	Economic	Comfortable	Social	Economic Comfortable Social	χ2	Sig.
Price	4.72	3.95	3.89	4.56	121.279	<.001
Location	4.30	3.93	4.15	4.39	31.467	<.001
Pictures of the accommodation	3.92	3.89	3.78	4.02	9.536	<.023
Ratings on the host	4.03	3.71	3.79	3.98	12.508	<.006
Easy access	3.26 ^(*)	3.58	3.63	3.95 ^(*)	38.778	<.001
Possibility of using the kitchen	2.50(*)	3.51	$2.90^{(*)}$	3.70	82.605	<.001
Possibility of using the washing machine	1.62 ^(*)	2.55	2.60(*)	2.92 ^(*)	79.300	<.001

^(*) The values in bold type present significant differences in three of four of the means clusters. In order to be able to test for the significant differences between the different means the U-Mann-Whitney test was applied.

Source: Own elaboration.

since the critical level (p) associated to Friedman's statistic χ^2 (1,120,297) is less than 0.001, which allows to contrast that the means of the elements are not same. The tourists point out price, location, pictures of the accommodation and ratings on the host among the factors with a higher incidence in the choice of accommodation in Córdoba. On the other hand, possibility of using the kitchen and possibility of using the washing machine stand out due to its lower relevance.

The analysis by tourist segments allows to contrast that the averages compared are not equal among the factors considered (Table 5). In general, visitors with greater motivation are characterized by showing the highest scores. The results suggest interesting aspects that have to be considered to improve the good image of peer-to-peer tourism in Córdoba.

5. Discussion

Nowadays, an increasing number of travellers decide to stay in a peerto-peer accommodation. Many studies have been carried out during last years about the motivations to choose this type of accommodation, contributing with amazing findings in this field. Particularly, Razli et al.(2016) and Matoga and Pawłowska (2018) consider as main motivations economic benefits, comfort and the search for more authentic and novelty experiences. Our findings tell us about the price as the main motivation, in concordance with the results of several authors (Bellotti et al., 2015; Tussyadiah, 2015; Razli et al., 2016; Pesonen and Tussyadiah, 2017; Tussyadiah and Zach, 2017; Wu et al., 2017; Liang et al., 2018; Mahadevan, 2018; Matoga and Pawłowska, 2018). In fact, following Bellotti et al. (2015) users try to satisfy basic needs as getting what they need at a competitive price. This is one of the three factors extracted in this research and is related to economic reasons. Furthermore, one of the segments we get (called economic tourist) registers significant high values in the items related to the economic dimensions and is made up of almost 20% of the sample. The members of this group seek for economic benefits and give great importance to the price of accommodation.

Another motivation that is frequently cited in academic literature comprise aspects related to comfort (Razli et al., 2016; Pesonen and Tussyadiah, 2017; Tussyadiah and Zach, 2017; Mahadevan, 2018; Matoga and Pawłowska, 2018). This is the second segment we have found ("Comfortable Tourist"), and it incorporates tourists that seeks comfort and familiarity when they opt for a peer-to-peer accommodation. This segment is made up of 19% of the sample. According to Guttentag (2015) it is reasonable to think that this finding confirm the disruptive character of the peer-to-peer accommodation given that this service offer some specifics benefits like familiarity, space, amenities, in contrast with the ones you can find in traditional lodging. Even more, in a more recent study, Guttentag et al. (2018) have found five segments, one of them called "Home Seekers". This segment, as our segment "Comfortable Tourist", includes tourists who are basically motivated by home benefits.

Social aspects are also one the main motivations that scientific literature describes in peer-to-peer accommodation (Razli et al., 2016; Tussyadiah, 2015; Guttentag et al., 2018; Mahadevan, 2018; Matoga and Pawłowska, 2018). In our research, this segment ("Social Tourists") is the largest: is made up of 32,2% of respondents. It includes tourists who seek to meet new people and to immerse in local culture. Guttentag et al. (2018) get a similar segment which they called "Collaborative Consumers" and includes travellers who show raised levels in what Mahadevan (2018) describe as sharing economy philosophy. This segment, "Social Tourist" also matches with the findings of Pesonen and Tussyadiah (2017). They get two clusters of tourists, and one of them ("Idealists") which includes tourists specially affined to community aspects and interaction with the host.

According with Wu et al. (2017) findings, our study reveals differences from experienced tourists -those who had previous experience with peer-to-peer accommodation- to inexperienced tourists. In the first segment, "Economic Tourist", more than 8 out of 10 respondents have

used the peer-to-peer accommodation before, but only seven out of 10 respondents are experienced tourists in the two remaining segments.

Guttentag et al. (2018) also find that *location* is the second most strongly motivation. They consider this result unexpected due to the scatter of the peer-to-peer accommodation in residential neighbourhoods. In our research, we find that *location* is the second factor to choose accommodation for the three segments, but, in contrast with the study of Guttentag et al. (2018), and maybe for the cultural and patrimonial character of the tourism in Córdoba, almost all the peer-to-peer accommodation in Córdoba are in the historical Center of the city, and there is a great demand of accommodation in this area. It may be interesting to replicate the research in other areas in order to confirm the peculiarity of location in peer-to-peer accommodation in World Heritage Sites.

6. Conclusions

The potential of peer-to-peer tourism makes it necessary to carry out investigations such as the present study in order to obtain ideas and factors of great relevance when making plans to improve and promote this product as a travel option. The differentiating strategies of the offer imply an exhaustive description of the tourists, which implies not only an analysis of the sociodemographic variables but also their motivations, interests, satisfaction and the opinion on different aspects of the consumption habits.

In this research, tourists who use this accommodation have been segmented in four groups. Namely: economic tourist, comfortable tourist, social tourist and economic-comfortable-social tourist.

In order to determine the profile of tourists who use this travel option in their visit to the city of Córdoba, the most relevant data of the ideas and clues obtained in the research work carried out are summarized. The visitor who comes to Córdoba under the peer-to-peer modality is a young person, under 40 years old, with a high academic level. Most tourists are national, as a representative percentage of them come from the same region of the destination. The data reveals the low projection of this type of travel beyond the Spanish borders.

The peer-to-peer modality has a high degree of loyalty among tourists visiting Córdoba: 7 out of 10 respondents had already used it. The degree of overnight stay is in accordance with this mode of travel: 23% of the sample spent more than three nights in the city. The most usual means of accommodation is the complete dwelling, with the historic center and the center being the preferred locations. The average planned induced expense reaches $\ensuremath{\in} 39$.

Reasons of economic type and those related to comfort stand out among the reasons for choosing peer-to-peer as a travel option. To a lesser extent, social motivations are also observed.

We can conclude that the leading theoretical implications of this research confirms the existence of heterogeneous motivations when tourists opt for the peer-to-peer accommodation, though some of these motivations -such price, location or comfort- are stronger than others. Besides, it is possible to classify the peer-to-peer tourists according to their motivations to choose this type of accommodation.

The main practical application of this research is to contribute to the analysis of the characteristics of the tourist that visits the city of Córdoba under the modality of peer-to-peer tourism in order to conceive products that best meet their needs. The management implications derived from this study are mainly two: The first, greater promotion and dissemination of peer-to-peer tourism abroad. The second, the use of the good image of this type of travel in Córdoba to strengthen the city as a peer-to-peer tourist destination. Likewise, the practical implications of this research are found in the provision of information to the managers of the peer-to-peer tourism in the city of Córdoba, with the aim of continuing to improve the management of this travel option. The knowledge about the main motivations suggest the use of strategies according to the obtained results.

The main limitation of this investigation is the lack of data corresponding to this type of travel. Prior to the investigation, the profile of the

peer-to-peer tourist or its origin was unknown.

To conclude, as future lines of research, it is proposed to carry out similar studies in other tourist destinations in order to identify common links and differentiating features. Without a doubt, this will contribute to the development of the academic discipline related to tourism management in Spain.

Declarations

Author contribution statement

- A. Menor-Campos, A. Hidalgo-Fernández: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.
- J. C. Pérez-Gálvez: Performed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.
- G. A. Muñoz-Fernández: Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

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