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DO PSYCHOGRAPHIC VARIABLES INFLUENCE RESIDENT ATTITUDES TOWARDS TOURISM? EVIDENCE FROM CORDOBA, SPAIN–A WORLD HERITAGE CITY

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This study explores residents' attitudes towards tourism in the midst of the COVID-19 pandemic. Within this context, our overall aim was to determine whether the host community's attitudes towards tourism were shared by all members or, in contrast, were far from homogeneous. And if the latter, to characterize resident profiles to determine the specific factors behind the differences. In conjunction with the traditional sociodemographic factors, we also used new pioneering variables associated with the pandemic including two psychographic factors: perceived risk and perceived economic crisis. The empirical study was performed in a type of tourist destination seldom explored in terms of community segmentation: a World Heritage City. The results highlight that by using sociodemographic factors, dependence on tourism, and psychographic factors, it was possible to identify three different segments of residents. By using a decision tree in a novel way, it was determined that the psychographic factors show higher discriminant potential. Obtaining different resident profiles according to attitudes towards tourism is of paramount interest, especially for the correct management of sustainable tourism destinations. And even more so in the context of a crisis as it enables public tourism managers to design differentiated strategies for each profile aimed at maximizing support from the host community, given the importance of residents' behavior as an integral part of the tourism product.

Key words: Resident attitude; Segmentation; Psychographic factors; Risk management; COVID-19

Introduction

Tourism has become an important contributing factor to the economic, sociocultural, and environmental impacts on locations linked to tourism, whether places of origin, transit, or destination (Eusébio & Carneiro, 2019). In order to analyze the impacts of tourism from the perspective of the host community, Sharpley (2014) suggested two main approaches: (1) based on identifying and testing

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variables that may determine residents' attitudes (Hateftabar & Chapuis, 2020; Rasoolimanesh et al., 2015; Ribeiro et al., 2017; Stylidis & Terzidou, 2014) and (2) based on the segmentation of host communities to determine different levels of support for tourism (Aguiló & Roselló, 2005; Del Chiappa et al., 2018; Wassler et al., 2019; Weaver & Lawton, 2001). This study focuses on the latter approach, based on the premise that residents' attitudes towards tourism are far from homogeneous, given that they are influenced by a multitude of factors (Del Chiappa et al., 2018; Inbakaran & Jackson, 2006; Ribeiro et al., 2013).

On March 11, 2020, the World Health Organization declared a global pandemic due to a new type of coronavirus, COVID-19, which, has given rise to an unprecedented health and economic crisis and has had a devastating impact on the tourism industry in general (Škare et al., 2021) and on cultural tourism in particular (Wallace et al., 2023). In this context, there is a tendency for researchers to approach their studies from the tourist's perspective (Ghosh & Batabyal, 2023; Li et al., 2021; Zheng et al., 2021). However, Lee et al. (2012) warned that one of the greatest risks of tourism in the midst of a pandemic is the transmission of disease by guests to the host community. As a result, residents from tourism destinations are at a crossroads between opening their doors to guests to help their economic recovery or, in contrast, maintaining some resistance to opening in order to avoid the risk of contagion. Notwithstanding, there has been very limited attention given to residents' attitudes towards the influx of tourists in the current economic–health crisis, with only a few contributions found in Asian countries (Joo et al., 2021; Kamata, 2022) that use the first approach highlighted by Sharpley (2014). As a result, there is a clear knowledge gap given that no studies were found that segment local communities based on attitudes towards tourism in the current context.

The most popular factors used by academics to detect differences between groups of residents are sociodemographic variables (Del Chiappa et al., 2018; Inbakaran & Jackson, 2006; Pavlić et al., 2020; Vareiro et al., 2013). However, in view of the current economic–health crisis, three new factors are proposed in this study: the perceived risk of contracting COVID-19, and the perceived economic crisis—both are psychographic variables—and a third factor that categorizes vulnerable residents who could be at higher risk of developing a serious illness from coronavirus in a separate group.

As a result, this study is pioneering in its analysis of resident segmentation during a pandemic. It pursues a threefold objective: first, to segment the host community according to attitudes towards the impacts of tourism and support for tourism development; second, to characterize different resident profiles; and third, to investigate whether the new proposed variables show higher discriminant potential than traditional sociodemographic variables.

The city of Cordoba, a World Heritage City in Spain was selected for the geographic framework. To be included in the Heritage Cities Group, the city must have a historic site inscribed on UNESCO World Heritage List. Cordoba has one of the oldest inscribed heritage sites on the list in this country: the Mosque−Cathedral (1984), a real epicenter of cultural tourism. Likewise, this city has a unique historical combination, as a result of the four cultures that have been present in the city throughout its history: Roman, Christian, Arab, and Jewish. Inscription on the World Heritage List has many benefits, such as increased tourist arrivals (De Simone et al., 2019), increased employment opportunities, and income for host communities, and is a key instrument for the conservation and protection of the site. Rasoolimanesh et al. (2015) emphasized the lack of research on views of residents of World Heritage Sites. Indeed, among the previous studies, there is a clear predominance of "sun and beach" tourism destinations (Castillo et al., 2016; Eusébio et al., 2018; Garau-Vadell et al., 2018; Joo et al., 2021; Ribeiro et al., 2017). Therefore, it is of interest to analyze host community attitudes in less studied geographical settings, as cultural differences define how the residents react to tourism and its impacts. For this purpose, a total of 434 surveys were collected and treated using various multivariate analysis techniques, including clustering (to identify segments) and decision trees (to detect the factors with the highest discriminant potential).

Obtaining different resident profiles according to attitudes towards tourism is of paramount interest, especially for the correct management of tourism destinations (Ribeiro et al., 2013; Vareiro et al., 2013). And even more so in the context of a crisis

as it enables public tourism managers to design differentiated strategies for each profile aimed at maximizing support from the host community, given the importance of residents' behavior as an integral part of the tourism product.

The remainder of this article is structured as follows. Section 2 presents the theoretical background. Section 3 describes the study area and the methodologies used for data collection and analysis. Section 4 presents the results. And lastly, the discussion and conclusions are presented in Section 5.

Theoretical Background

Community Attitudes, Social Exchange Theory, and Social Representation Theory

The growing interest in examining community attitudes towards tourism development stems from the need to minimize potentially negative attitudes regarding this issue among this stakeholder group, as the residents could constitute a clear impediment to the development and sustainability of the destination (Ap, 1992; Belisle & Hoy, 1980; Diedrich & García-Buades, 2009; Sirakaya et al., 2002). According to Monterrubio and Andriotis (2014), local attitudes may be described as "community's group of beliefs, knowledge, feelings of like or dislike, and the behaviour (or the intention of) towards tourism development" (p. 290). Sharpley (2014) and Sinclair-Maragh et al. (2015) argued that most authors have studied residents' perceptions and attitudes as equivalent concepts. However, San Martín et al. (2018) contended that attitude is a psychological variable that implies a more consistent disposition than perceptions.

The theoretical framework of this study is built on two theories: social exchange theory (SET) and social representation theory (SRT). Both theories have proven useful in assessing local attitudes towards tourism and, for the first time, this theoretical approach is applied to the opening of a tourism destination in the midst of a pandemic.

SET is the most popular theory in this field and was first applied by Ap (1992). The theory is based on the premise that hosts assess the impacts of tourism and will support tourism development if they believe that the positive impacts (benefits) outweigh the negative ones (costs) (Ap, 1992; González et al., 2019; Jurowski & Gursoy, 2004; Nunkoo et al., 2013; Stylidis & Terzidou, 2014). Thus, SET refers to the exchange of tangible and intangible resources that residents and tourists can respectively give and receive in the host–resident tourism context. In line with the literature reviews of Ribeiro et al. (2017) and Hateftabar and Chapuis (2020), positive impacts include the improvement of the local economy, increased employment, greater investment in infrastructure and public facilities, improved quality of life for residents, and the reactivation of cultural activities, while negative impacts include an increase in the cost of living, the deterioration of historical sites, overcrowding and congestion of public infrastructure, as well as an increase in crime and environmental pollution, among others. In addition to the distinction between positive and negative impacts, the effects of this exchange process can be of a three-dimensional nature, namely economic, environmental, and sociocultural.

Despite the proven usefulness of SET, several scholars (Nunkoo, 2016; Rasoolimanesh et al., 2015; Ward & Berno, 2011) considered the theory insufficient to explain the complex formation of attitudes and recommended complementing it with other theories. Hence, the use of SRT is also proposed, which, when applied to this field, enables identifying groups or segments with common attitudes and similar reactions towards tourism (Andriotis & Vaughan, 2003; Fredline & Faulkner, 2000; Monterrubio & Andriotis, 2014; Wassler et al., 2018, 2019).

Resident Segmentation

Population segmentation aims to categorize populations with respect to certain criteria by forming internally homogeneous groups (Williams & Lawson, 2001). Table 1 presents a summary of the principal studies on resident segmentation in relation to attitudes towards tourism. An uneven geographical distribution can be observed, with a distinct concentration of studies in Europe (especially in the UK and Mediterranean countries). In turn, there are also an abundant number of studies that focus on islands. It should also be mentioned that very few studies have been performed in World Heritage Cities (Pavlić et al., 2020; Vareiro et al.,

Table 1
Resident Segmentation Studies (Chronological Order in Each Country)

North America	
US	Davis et al. (1988): *Florida*; Canan and Hennessy (1989): *Hawaii*; Schroeder (1992): *Flagstaff (Arizona)*; Madrigal (1995): *Sedona (Arizona)*
Mexico	Monterrubio and Andriotis (2014): *Acapulco*
Europe	
UK	Ryan and Montgomery (1994): *Bakewell (England)*; Madrigal (1995): *York (England)*; Ryan et al. (1998): *Bakewell (England)*; Schofield (2011): *Worsley (England)*
Spain	Aguiló and Roselló (2005): *Balearic Islands*; Garau-Vadell et al. (2014): *Mallorca and Tenerife*; Martín et al. (2020): *Gran Canaria*
Italy	Brida et al. (2010): *Folgaria*; Presenza et al. (2013): *Termoli*; Del Chiappa et al. (2018): *Sardinia*
Portugal	Vareiro et al. (2013): *Guimarães*
Greece	Andriotis and Vaughan (2003): *Crete*
Croatia	Pavlić et al. (2020): *Dubrovnik*
Turkey	Sinclair-Maragh et al. (2015): *Goymuk and Camyuva*
Oceania	
Australia	Fredline and Faulkner (2000): *Gold Coast*; Weaver and Lawton (2001): *Gold Coast*; Inbakaran and Jackson (2006): *Victoria*; Jackson and Inbakaran (2006): *Victoria*; Weaver and Lawton (2013): *Gold Coast*
New Zealand	Ryan et al. (1998): *Rangitikei*; Williams and Lawson (2001): *Ten Towns*; Thyne and Lawson (2001): *Southern Lakes Region*
Africa	
Cape Verde	Ribeiro et al. (2013): *Various Islands*; Castillo et al. (2015): *The Island of Santo Antao*; Castillo et al. (2016): *The Islands of Sal and Boa Vista*
Asia	
China	Zhou and Ap (2009): *Beijing*; Zhou (2010): *Macao*; Chen (2011): *Macao*; Wassler et al. (2018): *Hong Kong*
Vietnam	Wassler et al. (2019): *Central Vietnam*

Note. Source: Own elaboration.

2013), which is the type of tourism destination chosen for our empirical study.

In general, most studies tend to differentiate between two opposing segments (supporters vs. opponents of tourism), as well as other intermediate groups (between one and three) that adopt an eclectic position towards tourism development.

However, since significant previous research in different settings suggests that residents even in the same destination may have different attitudes towards tourism, and in line with SRT, the first research hypotheses are formulated as follows:

H1: In the city of Cordoba, despite an overall global attitude towards tourism, attitudes towards the impacts of tourism (benefits and costs) vary across segments.

Likewise, linking this idea with SET, it is possible to state an additional hypothesis:

H2: In the city of Cordoba, certain residents vary in their levels of support for tourism development, such that predominantly positive attitudes will lead to higher levels of support for tourism and vice versa.

Determinants of Resident Attitudes

There is a wide range of explanatory factors that give rise to residents' varied attitudes towards tourism. The most widespread classification in the literature is the dichotomy between extrinsic and intrinsic factors (Fredline & Faulkner, 2000; Hateftabar & Chapuis, 2020; Sharpley, 2014; Shen et al., 2017).

Extrinsic variables are those that affect the reactions of residents at a macrolevel—that is, those that impact the community as a whole, such as a tourism destination's development stage (Aguiló & Roselló, 2005; Vargas-Sánchez et al., 2009), tourists' origin (domestic vs. international) or seasonality (Vargas-Sánchez et al., 2014). In contrast, intrinsic variables are linked to the characteristics of the individuals who comprise the host community. The most important intrinsic variables are resident's sociodemographic factors, and economic dependence on tourism. Table 2 lists the factors that

Table 2
Sociodemographic Factors and Dependence on Tourism as Determinants of Resident Attitudes

Gender	
Yes	Inbakaran and Jackson (2006); Rasoolimanesh et al. (2015); Ribeiro et al. (2017); Ritchie and Inkari (2006); Schofield (2011); Vareiro et al. (2013); Wang and Pfister (2008); Weaver and Lawton (2001); Weaver and Lawton (2013); Williams and Lawson (2001)
No	Andriotis and Vaughan (2003); Davis et al. (1988); Del Chiappa et al. (2018); Pavlić et al. (2020); Ryan and Montgomery (1994)
Age	
Yes	Inbakaran and Jackson (2006); Ribeiro et al. (2013); Vareiro et al. (2013); Weaver and Lawton (2013)
No	Belisle and Hoy (1980); Davis et al. (1988); Del Chiappa et al. (2018); Ryan and Montgomery (1994)
Marital status or family life cycle	
Yes	Inbakaran and Jackson (2006); Ribeiro et al. (2013)
Place of residence	
Yes	Belisle and Hoy (1980); Janusz et al. (2017); Jurowski and Gursoy (2004); Madrigal (1995); Rasoolimanesh et al. (2019); Sheldon and Var (1984); Tyrrell and Spaulding (1984); Weaver and Lawton (2001)
No	Del Chiappa et al. (2018); Inbakaran and Jackson (2006)
Education	
Yes	Andriotis and Vaughan (2003); Del Chiappa et al. (2018); Inbakaran and Jackson (2006)
No	Pavlić et al. (2020)
Occupational status	
Yes	Ribeiro et al. (2013); Wassler et al. (2019)
No	Pavlić et al. (2020)
Incomes	
Yes	Pavlić et al. (2020); Vareiro et al. (2013); Weaver and Lawton (2001)
No	Rasoolimanesh et al. (2015); Ritchie and Inkari (2006)
Tourism dependence	
Yes	Del Chiappa et al. (2018); Inbakaran and Jackson (2006); McGehee and Andereck (2004); Rasoolimanesh et al. (2015); Ribeiro et al. (2013); Sirakaya et al. (2002); Smith and Krannich (1998); Stylidis et al. (2014)
No	Ritchie and Inkari (2006); Vareiro et al. (2013)

Note. Yes: Authors who found a statistically significant relationship between attitudes and the specified factor. No: Authors who did not find a statistically significant relationship. Source: Own elaboration.

appear in our study and various authors who have previously considered them. The findings offer contradictory results: while some found statistically significant relationships between the factors and attitudes towards tourism, others do not.

The arrival of infected visitors to a city amidst a pandemic may have a stronger effect among hosts living in sites with the highest tourist influx, so in addition to the traditional sociodemographic factors (gender, age, education, etc.) it is important to consider the spatial factor, which distinguishes between residents living in the city center and those residing in other areas of the city. While some authors have found that residing close to tourism areas has a positive effect on supporting for tourism development (Belisle & Hoy, 1980; Janusz et al., 2017; Sheldon & Var, 1984), others have suggested just the opposite, perhaps because saturation may prevent them from enjoying tourism resources or entail other inconveniences such as noise or litter (Jurowski & Gursoy, 2004; Madrigal, 1995; Tyrrell & Spaulding, 1984).

Economic dependence on tourism enables differentiating between residents who work in the tourism industry (or live in a household dependent on the tourism sector) and those who do not, since according to SET involvement in the tourism industry may be a determining factor of their attitude. Some previous studies have postulated that inhabitants who work in the tourism industry (or who have a household member employed in this sector) will exhibit a more favorable attitude towards tourism and/or be more supportive of tourist arrivals than those who do not (McGehee & Andereck, 2004; Rasoolimanesh et al., 2015; Stylidis et al., 2014). However, the findings in the literature are inconsistent. Some studies have found no evidence of a relationship between involvement in the sector and support for tourism development (Ritchie & Inkari, 2006; Vareiro et al., 2013), while others

have reported exactly the opposite (M. Smith & Krannich, 1998).

Hence, in line with the previous research showing that sociodemographic factors and the level of dependence on tourism (personal and household) may influence residents' attitudes towards tourism, two new hypotheses are formulated:

H3: Segments are differentiated according to certain sociodemographic characteristics.

H4: Segments are differentiated according to the degree of residents' dependence on tourism and/or whether tourism is the main source of household income.

In the current economic–health crisis, it is important to consider new factors that could affect local community attitudes towards tourism. In this study two psychographic factors have been considered: perceived risk and perceived economic crisis. Regarding the former, the arrival of a large number of infected tourists to a given destination would increase the likelihood of the spread of infection (Bajardi et al., 2011; Gautret et al., 2012) and, as a result, the risk perceived by residents. Moreover, perceived risk through the prism of residents has received very limited attention in the literature, given that the risks assumed by the host community in the face of an influx of tourists are minimal under normal circumstances (Zenker & Kock, 2020). According to K. Smith (2013), the concept of "risk" implies a potential threat and by qualifying risk as *perceived* risk, it has an associated probability of occurrence of a subjective nature. This is the reason why differences can be found within a population exposed to the same risk (tourist arrivals). The analysis of residents' risk perception is grounded in protection motivation theory (PMT; Rogers, 1975). Rogers theorized that an individual's attitudes and behaviors can be influenced by the magnitude of a risk. More specifically as regards our study, PMT posits that residents might take exceptional precautions or alter their usual behaviors if the risk of contracting COVID-19 from tourists is perceived as relevant. Given that scientists do not yet dare to predict when the COVID-19 pandemic will come to an end and warn of possible future pandemics (Halabowski & Rzymski, 2021), risk will continue to be a key factor to consider in future research on tourism destinations.

Regarding the second factor, most countries have opted for containment measures to stop the spread of the virus, which have had a devastating impact on the economy (Gourinchas, 2020). Garau-Vadell et al. (2018) and Lindberg and Johnson (1997) highlighted that in periods of recession, host communities become more favorable towards tourism and give it more value. However, this study does not consider the "objective" economic crisis that could be verified through macroeconomic indicators, but rather residents' *perception* of the economic situation (or "subjective" economic crisis), which, according to Gabel and Whitten (1997), is what really affects attitudes. Therefore, in line with the above, we have formulated the following additional hypotheses:

H5: Segments differ according to the perceived risk of COVID-19 contagion in opening the city to tourism.

H6: Segments differ according to the perceived economic crisis resulting from the emergence of COVID-19.

Moreover, another new factor has also been included in the study: residents belonging to groups specified by the Spanish Ministry of Health as being at higher risk of developing serious illness due to contracting COVID-19. Belonging to these groups could increase residents' fear of contracting the disease, thus leading to an unfavorable attitude towards tourism. To the best of our knowledge, no previous studies have examined this factor when analyzing destination residents' attitudes towards tourism. Hence, we also state the following hypothesis:

H7: Segments differ according to whether the resident belongs to one of the risk groups identified by the Spanish Ministry of Health.

Study Area and Methodology

Geographical Framework

The geographical setting chosen for the empirical study was the city of Cordoba, located in southern Spain, in the heart of Andalusia (Fig. 1). Spain holds a privileged position on the international tourism scene—becoming, in 2017 to the present,

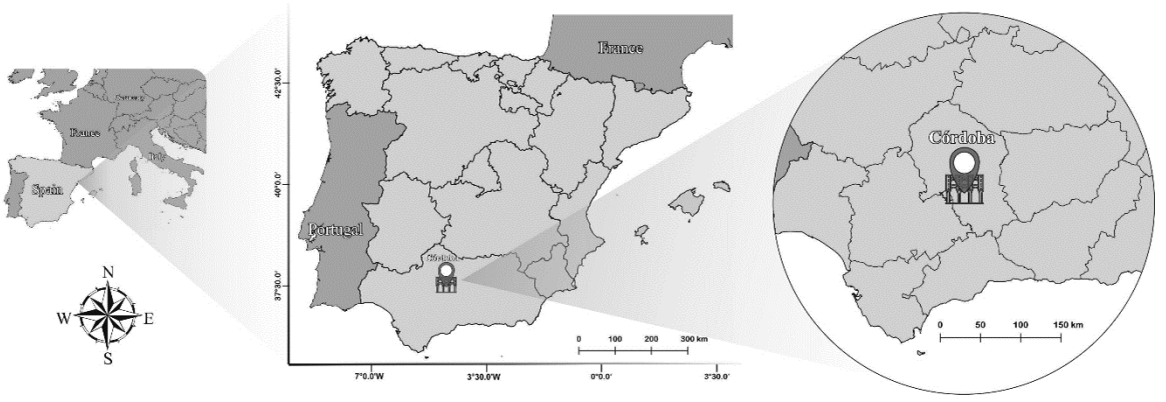

Figure 1. Geographical location of the city of Cordoba (Spain). Source: Own elaboration.

the world's second largest destination (World Tourism Organization, 2021). Although Spain is known worldwide for its sun, sea, and sand tourism, it also has a wealth of cultural tourism, with 15 Spanish cities included in the list of World Heritage Cities (UNESCO, 2021).

Cordoba holds a privileged position with four inscriptions in the UNESCO World Heritage List that make it the city with more UNESCO World Heritage Sites than anywhere in the world (Vora, 2018). It is a mature, seasonal destination, which received almost 1 million visitors in 2019, a figure that fell sharply by 70% in 2020 due to the COVID-19 pandemic (INE, 2021a).

Survey Instrument

A self-administered questionnaire was designed and divided into four sections, using a 5-point Likert scale for the first three sections, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

The first section measures residents' attitudes towards the impacts of tourism on the city, both positive and negative, and both measures include the triple dimension: economic, sociocultural, and environmental. It comprises a total of 16 items adapted from previous studies (Hateftabar & Chapuis, 2020; Kamata, 2022; Ribeiro et al., 2017; Vareiro et al., 2013; Vargas-Sánchez et al., 2009) to the context of the city of Cordoba. The second section focuses on residents' support for tourism development in the current pandemic (5 items), adapted from Joo et al. (2021) and Kamata (2022). The third section refers to the respondents' psychographic variables: perceived risk (4 items) adapted from Joo et al. (2021) and perceived economic crisis (5 items) adapted from Hateftabar and Chapuis (2020). Finally, the fourth section comprised the respondents' demographic characteristics, two dichotomous questions to determine their dependence on tourism, and a question about whether they belong to the aforementioned risk group for COVID-19.

The questionnaire was reviewed by a group of tourism experts in order to ensure the validity of its content. A pretest of 30 surveys was performed to verify the validity and ease of understanding of the questions.

Sampling and Data Collection Procedures

The target public for the study consisted of residents from the city of Cordoba, Spain, aged 18 years and over, who had lived in the city for at least 1 year. The population universe in this age bracket is 269,129 inhabitants (INE, 2021b). The sample size was determined according to Cochran's (1977) formula for a confidence level of 95% and ±5% margin of error, which gave rise to a required sample of 384 individuals.

The data were distributed and collected in April 2021 through a structured self-administered questionnaire in selected public areas (neighborhoods and shopping areas) using a random day/time/site pattern (Bonn et al., 2005). Respondents were presented with two alternatives: fill in the

questionnaire themselves by scanning a QR code on their smartphone or provide their answers directly to the interviewer. After a thorough review of the data collected, 434 valid responses were used in the analysis.

Data Analysis Methods

Various statistical analysis techniques were used (Hair et al., 2014) via the IBM SPSS 23.0 statistical program and structured into four stages.

First, an exploratory factor analysis with varimax rotation and principal component analysis was used to reduce the dimensionality of the 16 items on residents' attitudes towards the impacts of tourism. The scale reliability was verified using Cronbach's alpha, which returned values greater than 0.7.

Second, a cluster was performed using a twofold approach in order to identify different segments of residents based on the factors extracted in the previous stage. To this end, we used Ward's hierarchical cluster method followed by a *k*-means clustering analysis. Furthermore, a discriminant analysis was used to confirm the validity of the cluster solution.

Third, to reinforce the validity of the cluster solution, the differences between the clusters were analyzed according to the attitudinal factors obtained, and their relationship determined using a theoretically relevant variable. The comparison between clusters was made using one-way ANOVA testing and post hoc multiple comparisons. Statistical significance was set at a value of $p < 0.05$.

Fourth, taking into account the set of variables collected in the third and fourth sections of the questionnaire, profiles for each cluster were characterized using cross-tabulations (Pearson's chi-square test), as well as ANOVA testing and post hoc multiple comparisons. And lastly, a decision tree was made (Hastie et al., 2009) to highlight the group of variables from the resident profiles with the highest discriminant potential.

Results

Respondent Profile

The sample is evenly split by gender. The largest age group comprises 40–54 year olds (41.2%). Almost a third of the sample resides in the city center. Approximately half of the respondents work as employees and household incomes range from €1001 to €3000 per month for 59.6% of the sample. A total of 15% of respondents stated that their livelihood depended on tourism and 9.7% stated that tourism was their household's main source of income. Lastly, 17.5% of respondents belonged to an at-risk group for COVID-19.

Principal Dimensions of Residents' Attitudes Towards the Impacts of Tourism

The segmentation process is based on the factor scores of residents' attitudes towards the impacts of tourism from the exploratory factor analysis. The values from the KMO test (MSA = 0.91) and Bartlett's test of sphericity [$\chi^2(120) = 3245.52$, $p < 0.000$] demonstrate that the sample used is adequate. Three factors were identified that explain 61.41% of the total variance (Table 3).

The first—"positive impacts" or benefits of tourism—explains 26.76% of the total variance. The scores indicate that the respondents are aware of the overall benefits of tourism for the city. The second factor—"negative sociocultural and environmental impacts"—accounts for 23.13% of the variance. The scores reveal a general disagreement with the notion that tourism has a negative effect on either aspect. And lastly, the third factor—"negative economic impacts"—explains 11.52% of the total variance and the scores indicate a somewhat higher concern than for the previous negative impacts.

Cluster Analysis

In order to segment the residents of the city of Cordoba according to their attitudes towards the impacts of tourism, a two-stage cluster analysis was performed from the three factors identified above. A three-cluster solution was accepted, thus supporting H1. However, in order to check the discriminant validity, a discriminant analysis was used with the three segments obtained. Table 4 shows the results. The two canonical discriminant results were significant at 0.001, the canonical correlations returned high values, and the hit ratio was 95.4%.

The mean of each factor was calculated for the members of each cluster to characterize the clusters

Table 3
Factor Analysis Results With Varimax Rotation of Residents' Attitudes Towards Tourism Impacts

Dimension: Tourism in the City	Factor Mean	Communalities	Factor Loading	Eigenvalue	Explained Variance	Cronbach's Alpha
Factor 1: Positive impacts				4.282	26.761	0.868
Creates jobs for residents (APIEC1)	4.69	0.585	0.719			
Creates business opportunities for residents (APIEC2)	4.63	0.666	0.756			
Increases income and standard of living (APIEC3)	4.58	0.701	0.801			
Increases income for the city via taxes (APIEC4)	4.14	0.479	0.674			
Improves standard of living (APISC1)	3.87	0.614	0.632			
Enhances the offer of cultural and leisure activities (APISC2)	4.51	0.612	0.708			
Benefits investment in public infrastructure (APIEN1)	4.48	0.564	0.719			
Benefits the conservation of cultural heritage (APIEN2)	4.57	0.590	0.637			
Factor 2: Negative sociocultural and environmental impacts				3.702	23.135	0.869
Causes loss of peace and tranquility (ANISC1)	2.62	0.673	0.709			
Increases crime (ANISC2)	2.18	0.505	0.641			
Creates conflict between residents and tourists (ANISC3)	2.41	0.692	0.801			
Creates overuse of leisure resources by tourists (ANIEN1)	2.43	0.669	0.785			
Increases atmospheric pollution in the city (ANIEN2)	2.82	0.687	0.773			
Factor 3: Negative economic impacts				1.843	11.516	0.724
Increases the cost of living (ANIEC1)	3.55	0.522	0.624			
Creates unstable employment (ANIEC2)	3.23	0.619	0.654			
Only benefits a reduced number of individuals (ANIEC3)	2.50	0.648	0.633			

Note. Source: Own elaboration.

Table 4
Discriminant Analysis of Resident Clusters Based on Attitudes Towards Impacts of Tourism

Discriminant Functions Results				
Discriminant Functions	Eigenvalue	Canonical Correlation	Wilks' Lambda	Chi-Square (*p* Value)
1	1.851	0.806	0.163	778.994 (0.000)
2	1.147	0.731	0.466	328.567 (0.000)

Classification Results				
		Predicted Group Membership		
Actual Group	No of Cases	1	2	3
Cluster 1	220	208 (94.5%)	12 (5.5%)	0 (0%)
Cluster 2	112	0 (0%)	110 (98.2%)	2 (1.8%)
Cluster 3	102	0 (0%)	6 (5.9%)	96 (94.1%)

Note. Hit-ratio: 95.4%. Source: Own elaboration.

according to the three factors identified (Table 5). To reinforce the validation of the cluster solution, the relationship was examined using a theoretically relevant variable: support for tourism development (Table 6). Comparing the two tables, the results confirm the premise of SET by revealing a positive relationship between favorable attitudes towards tourism and support for tourism, thereby supporting H2. From the analysis, the clusters were labeled as follows: cluster 1 "unconditionals," cluster 2 "rationals," and cluster 3 "neutrals." The first cluster (n = 220, 50.7% of the sample) includes those respondents who perceive tourism as having the lowest costs and the highest benefits, which denotes the highest support for tourism. The second cluster (n = 112, 25.8% of the sample) includes those individuals who are somewhat less aware of the benefits of tourism than cluster 1, give the highest score to the costs of tourism, and show slightly less support than cluster 1. Lastly, the third cluster is very similar in size (n = 102, 23.5% of the sample) to the second cluster and includes those residents who give intermediate scores to both benefits and costs, hence the name "neutrals," and is clearly positioned as the least supportive cluster of tourism.

Residents' Profiles by Cluster

Tables 7 and 8 show the analysis of the three clusters. In the first, each cluster was cross-tabulated with sociodemographic variables, the residents' tourism dependence (personal and household), and risk group membership. At a significance level of 5%, differences between clusters were only observed for the variables age, marital status, place of residence, personal tourism dependence, and household tourism dependence, thereby validating

Table 5
Differences in Expressed Attitudes Towards Tourism Impacts By Cluster (ANOVA)

	Clusters				
	1	2	3	*F* Test (*p* Value)	Post Hoc
Factor 1: Positive impacts	**4.76**	4.57	*3.59*	374.642 (0.000)*	C3<C2<C1
Factor 2: Negative sociocultural and environmental impacts	*1.80*	**3.47**	2.93	270.732 (0.000)*	C1<C3<C2
Factor 3: Negative economic impacts	*2.55*	**3.83**	3.45	106.713 (0.000)*	C1<C3<C2

Note. The highest numbers are in bold and the lowest in italics for each factor. Source: Own elaboration.
*All reported F-values are significant at 0.001.

Table 6
Differences in Expressed Support for Tourism Development by Cluster (ANOVA)

During the pandemic in Cordoba . . .	Clusters 1	2	3	*F* Test (*p* Value)	Post Hoc
I support the development of more historic, heritage, and cultural content (STD1)	**4.84**	4.62	*3.85*	87.708 (0.000)*	C3<C2<C1
I support new investment in tourism (STD2)	**4.65**	4.46	*3.75*	48.396 (0.000)*	C3<C2=C1
I think the tourist experience must continue to improve (STD3)	**4.63**	4.44	*3.85*	31.480 (0.000)*	C3<C2=C1
I support attracting more tourists (STD4)	**3.80**	3.51	*2.90*	18.291 (0.000)*	C3<C2=C1
I think that tourism should be actively promoted (STD5)	**3.73**	3.57	*2.74*	21.971 (0.000)*	C3<C2=C1

Note. The highest numbers are in bold and the lowest in italics for each item. Source: Own elaboration.
*All reported *F* values are significant at 0.001.

H3 and H4 and rejecting H7 as no differences in risk group membership were found.

Subsequently, the possible differences between clusters were analyzed for the psychographic variables (perceived risk and perceived economic crisis): Table 8 shows the means per cluster for each of the corresponding items. As can be seen, there are significant differences between clusters for all the items included to measure perceived risk and perceived economic crisis, except for PEC3. These results support H5 and H6. Profiles were provided for each of the three identified clusters from the results shown in both tables:

1. Cluster 1 "unconditionals": Individuals belonging to this group are predominantly middle-aged (40–54) (46.8%), married or living with a partner (64.5%), and reside outside the city center (73.2%). Moreover, this group has the highest dependence on tourism, both personal (19.1%) and household (13.2%). The psychographic characteristics show that the respondents perceive the lowest risk associated with tourism and the highest awareness of the economic crisis.
2. Cluster 2 "rationals": This cluster has the highest percentage of mature individuals (over 55) and is the cluster that shows the most intense perceived risk, and also a high level of awareness of the economic crisis (practically at the same level as the previous cluster).
3. Cluster 3 "neutrals": This cluster predominantly comprises the youngest age group (47.1%), with a clearly higher percentage of single individuals than the rest of the groups (38.2%) and a slight propensity to live in the city center (41.2%) compared to the rest. The dependence on tourism detected in this cluster is the lowest (8.8% personal and 5.9% household). The perceived risk of tourism is very high (close to that of cluster 2), while the perceived economic crisis is lowest of the three.

To conclude the analysis, the factors that gave rise to the highest discriminant potential in the clusters were identified. To this end, a decision tree was created. It should be noted that the tree only selects the conditional structure with the highest discriminant potential from the tree clusters identified. To incorporate the psychographic variables into the tree, the mean of their constituent items was calculated to categorize them into three levels, as specified in the legend in Figure 2.

As can be seen in Figure 2, the variables with the highest discriminant potential are the psychographic factors: perceived risk and perceived economic crisis. The results shown are consistent with the previous analysis. The most representative cluster at the highest level of risk (level 2) is cluster 2 followed by cluster 3. If the levels of perceived risk are low (levels 0 and 1) and the level of perceived economic crisis is low (level 0), then the size of cluster 2 is reduced. However, if the level of perceived risk is low (levels 0 and 1) but the level of perceived economic crisis is higher (levels 1 and 2), then cluster 1 is the predominant cluster, given that it shows the highest levels of both variables.

Discussion and Conclusions

First, this study constitutes an initial approximation of residents' attitudes in Cordoba towards

Table 7
Residents' Profile by Cluster: Sociodemographic Factors, Tourism Dependence, and At-Risk Group

	Clusters				
	1	2	3	Overall	χ^2 (p Value)
Gender					0.099 (0.952)
Male	50.0	48.2	49.0	49.3	
Female	50.0	51.8	51.0	50.7	
Place of residence					7.563 (0.023)*
City center	*26.8*	36.6	**41.2**	32.7	
Other	**73.2**	63.4	*58.8*	67.3	
Age					10.318 (0.035)*
18–39	*33.2*	37.5	**47.1**	37.6	
40–54	**46.8**	*34.8*	36.3	41.2	
55+	20.0	**27.7**	*16.7*	2.2	
Marital status					10.252 (0.036)*
Married/living with partner	**64.5**	63.4	*58.8*	62.9	
Single (never married)	*24.5*	28.6	**38.2**	28.8	
Other (divorced, widow)	**10.9**	8.0	*2.9*	8.3	
Education					2.461 (0.292)
Primary/second. school	31.3	23.5	31.8	29.7	
Graduate or higher	68.7	76.5	68.2	70.3	
Occupational status					12.563 (0.128)
Entrepreneur	24.1	14.3	13.7	19.1	
Employed	50.9	50.0	54.9	51.6	
Student	13.2	16.1	17.6	15.0	
Unemployed/housewife	7.3	8.0	6.9	7.4	
Retired	4.5	11.6	6.9	6.9	
Monthly income (euros)					6.576 (0.765)
0–1,000	6.8	9.8	9.8	8.3	
1,001–2,000	32.3	28.6	22.5	29.0	
2,001–3,000	31.4	25.9	34.3	30.6	
3,001–4,000	15.5	17.0	16.7	16.1	
4,001–5,000	6.8	10.7	9.8	8.5	
5,000 or over	7.3	8.0	6.9	7.4	
Personal tourism dependence					6.497 (0.039)*
Yes	**19.1**	12.5	*8.8*	15.0	
No	*80.2*	87.5	**91.2**	85.0	
Household tourism dependence					6.277 (0.043)*
Yes	**13.2**	6.3	*5.9*	9.7	
No	*86.8*	93.8	**94.1**	90.3	
At-risk group					4.788 (0.091)
Yes	13.6	20.5	22.5	17.5	
No	86.4	79.5	77.5	82.5	

Note. The highest numbers are in bold and the lowest in italics for each item. Source: Own elaboration.
*All reported F values are significant at 0.05.

tourism and aims to fill an important gap in the literature on segmentation of the members of a local community in the current economic–health context of the COVID-19 pandemic. To this end, new psychographic variables were introduced that were shown to have a higher discriminant potential in the segments than the traditional sociodemographic variables used for this purpose. Therefore, it would be advisable to include them in future research on this subject. In contrast, the third new variable proposed in this study—the inclusion of residents in the health risk group for COVID-19—was not significant, which led to the rejection of H7.

Second, in general terms, residents in the city of Cordoba are highly aware of the benefits associated with tourism. However, they seem less aware

Table 8
Residents' Profile by Cluster: Psychographic Factors (Perceived Risk and Perceived Economic Crisis) (ANOVA)

	Clusters				
	1	2	3	*F* Test (*p* Value)	Post Hoc
Perceived risk					
There is a high risk that tourists visiting Cordoba will introduce COVID-19 (PR1)	*3.49*	**3.82**	3.56	3.925 (0.020)*	C1<C2
Tourism in the city increases the risk of spreading COVID-19 (PR2)	*3.11*	**3.92**	3.75	20.219 (0.000)***	C1<C2=C3
The arrival of tourists increases my concern about preventing the spread of COVID-19 (PR3)	*2.94*	**3.68**	3.56	15.754 (0.000)***	C1<C2=C3
The arrival of tourists during the pandemic reduces my outdoor activities (PR4)	*2.06*	2.88	**3.00**	27.354 (0.000)***	C1<C2=C3
Perceived economic crisis					
The pandemic has had an important negative impact on the city (PEC1)	**4.73**	4.71	*4.34*	14.608 (0.000)***	C3<C1=C2
The pandemic has caused a high rate of unemployment and loss of earning in the city (PEC2)	4.80	**4.81**	*4.38*	19.318 (0.000)***	C3<C1=C2
My personal economic situation is worse than before the pandemic (PEC3)	3.09	3.00	0.74	1.841 (0.160)	C1=C2=C3
The pandemic has had a negative impact on my household economy (PEC4)	**3.68**	3.55	*3.10*	6.218 (0.002)**	C3<C1=C2
The pandemic has had a negative economic impact on the company (or organization) where I earn a living (PEC5)	3.29	**3.39**	*2.88*	3.616 (0.028)*	C3<C2

Note. The highest numbers are in bold and the lowest in italics for each item. Source: Own elaboration.
**F* value significant at 0.05, ***F* value significant at 0.01, ****F* value significant at 0.001.

of the sociocultural or environmental costs associated with tourism, and only moderately aware of the economic costs. Therefore, they show a predominantly favorable attitude towards the impacts of tourism. This finding is typical of destinations in the early stages of tourism development (Ribeiro et al., 2013; Vareiro et al., 2013) but is not usual in a mature destination such as the city of Cordoba. However, favorable attitudes and high support for tourism seem to increase not only in emerging destinations, but also during low season (Vargas-Sánchez et al., 2014) and in periods of recession (Garau-Vadell et al., 2018; Lindberg & Johnson, 1997). The common denominator in all three cases is the lower influx of tourists, which characterizes the current pandemic context, and which would also explain the general enthusiasm towards tourism shown by the community.

Third, although a predominantly optimistic attitude towards tourism was detected, we also identified the following three segments in the host community with common beliefs or opinions towards tourism in line with SRT (Fredline & Faulkner, 2000) and supporting H1, as well as differences between segments in sociodemographic variables, dependence on tourism, and perceptions of risk and the economic crisis, thus validating H3, H4, H5 and H6.

- The first segment was labeled "unconditionals," accounts for half the sample, and is therefore the largest segment. There is a strong perception of the benefits derived from tourism, yet the associated costs are hardly perceived. This resonates with SET in that it is the most supportive segment of tourism, thus validating H2. In terms of size and attitudes, it would be equivalent to "lovers" for Williams and Lawson (2001), "supporters" for Weaver and Lawton (2001), "optimistic residents" for Ribeiro et al. (2013), and "enthusiasts" for Vareiro et al. (2013). This segment is notable for showing the most awareness of the current economic crisis and, conversely, the least awareness of the risks of the pandemic. The enthusiastic attitude towards tourism could also be explained by the fact that the respondents in this segment are the most dependent on tourism, an aspect also reflected in previous studies (Inbakaran & Jackson, 2006; Ribeiro et al., 2013).

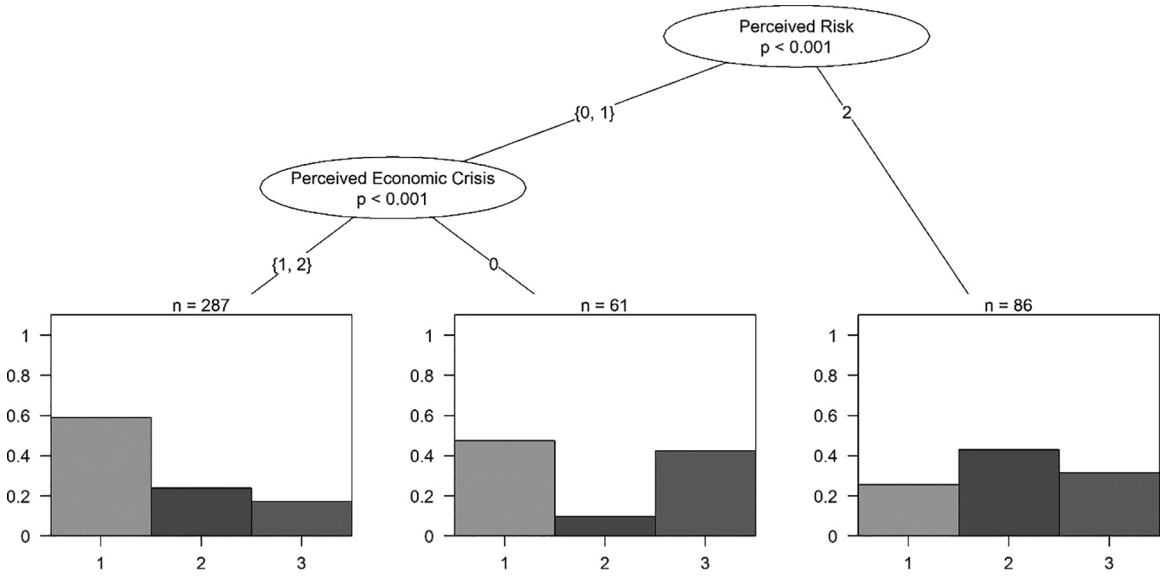

Figure 2. Decision tree. Levels used for Perceived risk and Perceived economic crisis: Level 2 = high (values greater than 4 on the Likert scale), level 1 = intermediate (values between 3 and 4 on the Likert scale), and level 0 = low (values less than 3 on the Likert scale). Source: Own elaboration.

- The second segment identified was labeled "rationals" and accounts for a quarter the sample (25.8%), as it presents a more critical view of tourism than the previous one. Individuals in this segment show greater concern about the negative impacts of tourism and its associated risk. However, they value the benefits it provides very highly, which together with a high awareness of the economic crisis lead them to support tourism almost as much as the previous segment. This profile has been previously identified by Fredline and Faulkner (2000) and Madrigal (1995) as "realistics," by Vareiro et al. (2013) as "moderately optimistic," and by Aguiló and Roselló (2005) as "prudent developer." The segment's sociodemographic characterization is somewhat diffuse, although it does comprise the highest percentage of individuals in the older age bracket, which could explain the strong perception of risk detected.
- The third segment is proportionally equivalent to the second segment (23.5% of the sample). The individuals in this segment are fairly neutral in their attitudes towards both the benefits and costs of tourism, hence its labeling as "neutrals." In previous studies it has been identified as "ambivalent," "uninnocent," "indifferent," and "sceptics" by Fredline and Faulkner (2000), Williams and Lawson (2001), Ribeiro et al. (2013), and Vareiro et al. (2013), respectively. The attitudes shown towards tourism are less favorable than those of the previous segments, which, in line with SET, makes it the segment that shows the least support for tourism, thus supporting H2. This could also be explained by the fact that the respondents are the least dependent on tourism and the least aware of the economic crisis. It is worth noting that this segment comprises the highest number of residents living in the city center (near World Heritage Sites). As a result, individuals feel more affected by the pressure of the tourists – as already highlighted in previous research (Jurowski & Gursoy, 2004). The younger age group predominates in this segment, which might be a problem for the city in the future.

In contrast to other studies, no residents were identified as "haters" (Fredline & Faulkner, 2000; Madrigal, 1995; Martín et al., 2020; Presenza et al., 2013). The only segment in which a more apathetic attitude towards tourism emerged is the third segment.

The results of this study can provide valuable information to public tourism managers in the city of Cordoba, especially in relation to the current commitment to meet the UN Sustainable Development Goals (United Nations, 2015)—especially Goal 11 that focuses on making cities more inclusive, safe, resilient, and sustainable. Policy initiatives linked to the sustainability of tourism in the city will be more effective if residents are involved more and given the opportunity to benefit from tourism in all its facets (economic, sociocultural, and environmental), using specific strategies for each of the identified segments. Consequently, it is essential to ensure that host communities are willing to achieve a better guest experience, as this will increase the attractiveness of and consolidate the destination under analysis.

Despite the interesting contributions mentioned above, this study is not without limitations. It should be noted that the data were collected in an extreme situation: a state of emergency with extensive restrictions had been declared in Spain and the COVID-19 vaccination process was in its first phase (only people over 80 years old). It was therefore difficult to stop older residents in the street or public places, let alone take a few minutes to conduct the survey. As a result, the proportion of elderly members of the host community was underrepresented in the sample. Previous research has shown that this group is more sensitive to health risks (Daoust, 2020) and less supportive of tourism (Sinclair-Maragh, 2017), so the results of the research could differ if a larger number of respondents with these characteristics were included. To achieve a greater representation of elderly residents and examine possible differences in more detail, the study could be replicated at another point in time.

For future research, it would also be appropriate to replicate this study in other cities with a view to performing a comparative analysis. Furthermore, a more in-depth study with additional variables could be carried out to determine differences between the identified segments, such as residents' place of birth or length of residence in the city, which could lead to different levels of attachment among members of the host community.

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