# ATTITUDES TOWARD TOURISM AND TOURISM CONGESTION

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Abstract — Research into local community attitudes has been on the rise for the past two decades and various attempts have been made to identify the factors that influence residents' perceptions, opinions and attitudes toward tourism. Different surveys have brought to light an increasingly growing concern that tourist expansion could lead to environmental costs, such as the depletion and overexploitation of natural resources. This study analyses the relationship between tourism congestion and the local residents' perceptions and attitudes toward tourism using the opinions of the Balearic Islands citizens. In general, the results show that a higher density of tourist accommodation in a municipality implies greater tolerance by its residents.

*Keywords*: TOURISM ATTITUDES, RESIDENT OPINIONS, TOURISM CONGESTION, DISCRETE CHOICE MODELS.

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#### 1. INTRODUCTION

Tourism is prominent in many coastal areas along the warm water regions around the world. From an economic point of view tourism development is a chance for a region's inhabitants to improve their personal income. However, it is also true that this development implies strong pressure on the environment. For this reason, new development policies must keep in mind residents' attitudes and opinions to tourism, since they perceive the environmental deterioration as opposed to the economic development that goes hand in hand with tourism. In this line, different studies have revealed the existence of clusters of residents with strong environmental concerns and a significantly negative opinion of tourism that can affect the formulation of new tourism policies (Aguiló and Rosselló 2005, Ap and Crompton 1993, Davis et al. 1988, Fredline and Faulkner 2000, Madrigal 1995, Ryan and Montgomery 1994 and Williams and Lawson 2001).

In spite of this, the majority of local residents see tourism as an economic development tool (Gursoy et al., 2002), and consequently it is not surprising that the findings of most of the studies on resident attitudes toward tourism development suggest that, overall, residents have positive attitudes toward tourism (Andereck and Vogt 2000) while only a few studies reported negative attitude toward tourism<sup>1</sup>.

According to the Social Exchange Theory, local residents are willing to participate in an exchange with tourists if they believe that they are likely to gain benefits without incurring unacceptable costs. If residents perceive that the positive impacts of tourism are greater than the negative impacts, they are inclined to be involved in the exchange and, therefore, endorse future tourism development in their community (Allen et al. 1993, Ap 1990 and 1992, Getz 1994, Gursoy et al. 2002, Jurowski et al. 1997, Madrigal, 1995, Perdue et al. 1990, Pizam 1978 and Yoon et al. 1999).

But the relationship between residents' attitudes toward tourism impacts and their support/opposition for tourism development is further supported by the Theory of Reasoned Action (Ajzen and Fishbein 1980, Fishbein and Ajzen 1975, Dyer et al., 2006). The Theory of Reasoned Action indicates that individuals are rational, they make use of all available information, and they evaluate the possible implications of their action before they decide to engage or not in a particular decision. The critical component to predicting different types of behavior is an individual's intentions, which in turn is an antecedent of actual behavior. Behavioral intentions have been defined as the subjective probability that the individual will engage in the specified behavior (Fishbein and Ajzen 1975). Intentions are comprised of all of the motivation factors that affect a type of behavior and are an indicator of how much effort an individual will exert to perform a behavior. The theory posits that if an individual

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<sup>&</sup>lt;sup>1</sup> Some examples in this line can be found in Cheng (1980), Johnson et al. (1994) and Pizam (1978).

perceives the behavior as favorable, he or she is more likely to intend to perform the behavior as suggested by the Social Exchange Theory.

The results of the application of these theories have brought to light differences in attitudes depending on a region's level of tourism development (Long et al. 1990), the tourist industry's relationship with economics (Smith and Krannich 1998, Williams and Lawson 2001), high concentrations of tourism in specific places (Madrigal 1995), how long people have lived in the local community and native-born status (Sheldon and Var 1984), the degree of familiarity with tourism and the local industry (Lankford 1994), the degree of contact with tourists (Akis et al. 1996), the perceived impact of leisure time (Lankford 1994), a destination's level of development (Sheldon and Abenoja 2001), a country's level of development (Teye and others 2002) and the type of tourism development (Carlsen 1999, Ryan and Montgomery 1994).

Based on the aforementioned thesis, different discrete choice models were constructed to further test the construct validity of the five-factor measurement scale representing Balearic Islands residents' perceptions and attitudes toward tourism and incorporating different measures of real tourism congestion as determinants of the models.

## 2. THE DETERMINANTS OF ATTITUDES TOWARD TOURISM

A review of the published literature on attitudes toward tourism highlights the existence of a broad spectrum of characteristics that can, in one way or another, condition individual attitudes toward tourism. For instance, Teye et al. (2002) emphasize the existent relationship between tourists and residents, the importance of the industry for the local community, the industry's economic dependence, the area's level of tourism development, an individual's place of birth, for how long residents have been living in the community and the distance between the place where they live and the tourist center. Similarly, Besculides et al. (2002) point out that residents with strong links with the community worry more about the effects of tourism than those with weaker community ties. Meanwhile, Haralambopoulos and Pizam (1996) demonstrate that those who are financially dependent on the industry (for work reasons, for example) tend to have a favorable opinion of tourism, usually even showing a more positive attitude to the possibility of future tourism developments.

In reference to the environment, Liu et al. (1987) analyze local resident perceptions of the potential negative impacts of tourism as a function that is directly dependent on the ratio between the number of tourists and the number of residents. Thus, growing pressure from tourism (with a higher ratio of tourists per resident, for instance) heightens perceptions of the environmental problems that tourism causes for the community, such as the congestion of cities, tourist centers and nature reserves, noise, waste generation and pollution, the destruction of the local flora and fauna, and urban pressure. This in turn generates stronger criticism of tourism, with a growing public awareness among

the population of the environmental problems that it brings about and a subsequent increase in opposition to tourism development.

Smith and Kranninch (1998) prove that there is a direct relationship between tourism development and the presence of certain negative attitudes toward tourism by the community's residents. Meanwhile Pearce (1980) argues that areas with a high level of tourism development generate resident dissatisfaction due to traffic and parking problems, crime, inflation etc. Nevertheless, it is also true that a stronger presence of the tourist industry implies greater economic development and higher incomes for residents. Consequently, as well as heightening environmental concern, it might also stimulate a greater appreciation for the tourist industry as long as tourism represents an important source of economic development for the region (Besculides et al. 2002).

Taking into consideration the ambiguity that is present in literature in analyses of the effects of higher levels of economic development on the opinions of local residents, this study uses the Balearic Islands as an example to propose and estimate choice models that are designed to analyze the determinants of local resident attitudes toward the congestion of the areas where residents live. The intention is to focus on an issue that is currently generating a growing controversy: tourism development and the overexploitation of natural resources.

#### 3. MODELLING ATTITUDES: THE CASE OF THE BALEARIC ISLANDS

#### 3.1. An Explicative Model of the Residents' Opinion

The review of past research on tourism attitudes shows how the most popular tool used in order to capture the opinions and perceptions has been the Likert scale. Likert scale asks individuals the quantification in natural numbers of their support or opposition (or their agreement or disagreement) in reference to different aspects related to tourism. For instance, using a five points Likert scale, 1 can be referred to those who strongly oppose, 2 oppose, 3 neither oppose – nor support, 4 support and 5 strongly support. Thus, focusing on a five points Likert scale, it can be argued that an individual's choice is determined by the expression:

$$L_i = f(x_i, d_i) \tag{1}$$

where  $L_i$  represents the possible answer that an individual might give, depending on their level of agreement with a proposed statement on a scale from 1 to 5;  $x_i$  represents the individual's socio-demographic characteristics; and  $d_i$  shows the level of tourism congestion in the individual's vicinity.

Because opinions are expressed in the form of a discrete, bounded variable, it is not advisable to use a simple regression model with an ordinary least squares procedure to determine or quantify the type of relation with the

independent variables, since the difference between alternatives 1 and 2 would be deemed the same as the difference between alternatives 3 and 4, when in fact the value that each alternative takes simply indicates its sequential order (Greene 2003). Another possibility is logit (or probit) multinomial models. Although this methodology is applicable to categorical data, it cannot capture the order that the dependent variable's alternative choices follow. This is why ordered logit and probit models were chosen, because they take into account not only the bounded, discrete nature of the dependent variable but also its order.

With these models, the implicit initial supposition is that the latent variable of opinion  $(O_i)$  is a linear function of explanatory variables  $x_i$  and  $d_i$ .

$$O_i = x_i \beta_x + d_i \beta_d + \varepsilon \tag{2}$$

where  $\varepsilon$  is a random error.

The observed category  $L_i$  is based on  $O_i$ , in accordance with the following rule:

$$L_{i} = \begin{cases} 1 & \text{if} & P_{i} \leq \gamma_{1} \\ 2 & \text{if} & \gamma_{1} < P_{i} \leq \gamma_{2} \\ 3 & \text{if} & \gamma_{2} < P_{i} \leq \gamma_{3} \\ 4 & \text{if} & \gamma_{3} < P_{i} \leq \gamma_{4} \\ 5 & \text{if} & \gamma_{4} < P_{i} \end{cases}$$
(3)

Thus the probability of observing each of the values of  $L_i$  can be expressed as:

$$\Pr(L_{i} = 1 \mid x_{i}, d_{i}, \beta_{x}, \beta_{d}, \gamma) = F[\gamma_{1} - (x_{i}\beta_{x} + d_{i}\beta_{d})]$$

$$\Pr(L_{i} = 2 \mid x_{i}, d_{i}, \beta_{x}, \beta_{d}, \gamma) = F[\gamma_{2} - (x_{i}\beta_{x} + d_{i}\beta_{d})] - F[\gamma_{1} - (x_{i}\beta_{x} + d_{i}\beta_{d})]$$

$$\Pr(L_{i} = 3 \mid x_{i}, d_{i}, \beta_{x}, \beta_{d}, \gamma) = F[\gamma_{3} - (x_{i}\beta_{x} + d_{i}\beta_{d})] - F[\gamma_{2} - (x_{i}\beta_{x} + d_{i}\beta_{d})]$$

$$\Pr(L_{i} = 4 \mid x_{i}, d_{i}, \beta_{x}, \beta_{d}, \gamma) = F[\gamma_{4} - (x_{i}\beta_{x} + d_{i}\beta_{d})] - F[\gamma_{3} - (x_{i}\beta_{x} + d_{i}\beta_{d})]$$

$$\Pr(L_{i} = 5 \mid x_{i}, d_{i}, \beta_{x}, \beta_{d}, \gamma) = 1 - F[\gamma_{4} - (x_{i}\beta_{x} + d_{i}\beta_{d})]$$

where F is the cumulative distribution of  $\varepsilon$ .

#### 3.2. The Attitudes of the Balearic Island Residents

In order to analyze the determinants of local resident attitudes toward tourism-related aspects of the environment, information from a survey using Balearic Islands citizens, conducted in 2002 and 2003, was used. The main purpose of the survey was to record the local residents' perceptions and attitudes toward numerous issues related to the Balearic tourist industry. A total of 791 surveys were considered as valid before the statistical exploitation. The

description of the survey and the main results can be found in Aguiló and Rosselló (2005). In any case it is important to highlight that the main results show a clearly positive opinion of the benefits that the industry represents for the economy of the Balearic Islands, which contrasts with a general perception that the pressure of tourism is responsible for high price levels, over-saturation of the community's services and traffic congestion. An analysis of current policies and potential proposals shows that there is only slight opposition to the introduction of new theme parks or general attractions that might lead to higher numbers of tourists, with 54% of the sample rejecting the idea. As expected, strong opposition was also shown (71%) to the further creation of hotels with more than 50 beds. However, when an analysis was made of the respondents' attitudes to the creation of new rural hotels, there was a significant change in opinion, with widespread support for the idea. A certain ambiguity was perceived in interviewees' opinions concerning the potential development of new facilities (excluding new accommodation).

There is a general perception that local residents' welfare is better now than it was 20 or 50 years ago, and there is a clear division of opinion concerning the idea that local residents' welfare would improve if the number of arrivals were reduced. On the subject of environmental problems, local residents seem to be conscious of the fact that tourism leads to the deterioration of natural resources. However, there is some ambiguity concerning the possibility that it might have contributed to the conservation of some natural resources. When asked to identify where the responsibility lies for the destruction of the Balearic Islands' local environment, the respondents once again point to tourism as the key factor.

As to the balance between the revenue obtained from tourism and the costs incurred, when local opinions are summarized, most of the respondents consider that the balance is positive (54%). Nevertheless, they do not constitute an overwhelming majority since over 18% think that the balance is negative.

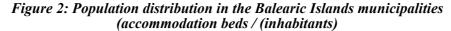
Nonetheless, Balearic Islands inhabitants are not homogeneous they have different socioeconomic characteristics (that were captured in the survey from a specific set of questions) and live in multiple places that have presented different levels of tourism development. In reference to the last issue, the objective of this study was to investigate in which way the presence of high tourist congestion in the vicinity of the individuals' habitual residence influences or not the residents' attitudes and opinions. In a second step, and if there is a relationship, the second objective will be to show in which way this influence operates.

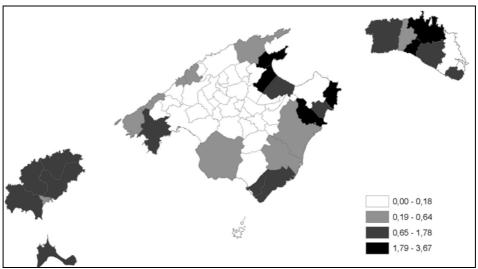
In order to obtain a measure of the tourism congestion in the vicinity, and because of the inexistence of tourism demand information at the local level, two alternative variables were considered. The first one was the population in the municipality (the municipality is a local organization unit that divides the land of the Balearic Islands in 67 districts). The reason for including this variable is

306 - 6359 6360 - 16209 16210 - 38841 38842 - 326993

Figure 1: Population distribution in the Balearic Islands municipalities (inhabitants)

Source: Centre de Recerca Econòmica (CRE).





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related to the fact that the most important economic activity in the Islands is tourism and migration movements during the last decades have been led by this issue. The second variable used is the number of accommodation beds divided by the population. This variable measures the intensity of tourism. Data for the population and congestion variables are shown in figures 1 and 2. In general,

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municipalities that have a coastline are the most populated and present a higher ratio of beds/population. As can be observed, the municipality with a higher number of inhabitants is Palma, the capital of the Balearic Islands. In terms of the ratio beds/population, St. Llorenç des Cardassar presents the highest ratio of the islands with 3.67 beds for each resident.

At this point, it is important to highlight that although it is possible to try and establish a simple relationship between congestion of tourism (based on municipalities' population and the density of accommodation) and local resident opinions and attitudes toward tourism, this analysis might be biased by other types of determinants. For this reason the behavioral model presented above, where individuals' opinions are not just determined by this two variables, is estimated in the next section.

#### 4. RESULTS

In order to provide evidence on the relationship about tourism congestion and residents' opinions and attitudes toward tourism, twenty-three key survey statements with information about Balearic Islands residents' opinions were selected (Table 1).

The information about the socioeconomic characteristics were also collected during the survey, and its identification name, include:

- age Age of the interviewee in years.

- gend A dummy variable that stands 1 if the interviewee was a man.

- *child* A dummy variable that stands 1 if the interviewee lives with children (less than 18 years old).

- *ymun* The number of years that the interviewee has been living in the municipality.

- *inc* Level of income measured on a scale from 1 to 5.

- *increl* Level of dependence of the family's incomes on tourism measured on a scale from 1 to 4.

- bspain A dummy variable that stands 1 if the interviewee was born in Spain (but not in the Balearic Islands).

- *bnorth* A dummy variable that stands 1 if the interviewee was born in the rest of Europe (EU-15).

- bsouth A dummy variable that stands 1 if the interviewee was born in a country outside the rest of Europe (EU-15).

- *lmall* A dummy variable that stands 1 if the interviewee is living in Mallorca but not in Palma (The capital).

- *lmen* A dummy variable that stands 1 if the interviewee is living in Menorca.

- *leivi* A dummy variable that stands 1 if the interviewee is living in Eivissa or Formentera.

On the other hand, according to the information available about tourism pressure commented above, the congestion variables used in the specifications were:

- pop
- Population of the municipality where the interviewee is living measured in natural logarithms.

  Ratio between the number of beds for tourists accommodation and population in the municipality where the interviewee is bedpop living.

Table 1: Tourism opinions and attitudes toward tourism

Feelings about Tourism Development	Evaluation								
From 1=Strongly disagree to 5=Strongly agree	1	2	3	4	5	NA			
Q1. Tourism is likely to create more jobs for the	1.9%		3.8%	30.8%	63.5%	_			
community.	1.7/0		3.070	30.070	03.370	_			
Q2. Tourism is likely to attract more investment to the community.	1.9%	-	19.2%	40.4%	34.6%	3.8%			
Q3. Tourism is likely to provide more business for									
local people and small businesses.	1.9%	3.8%	1.9%	46.2%	46.2%	-			
Q4. Tourism is likely to change the traditional culture.	1.9%	1.9%	7.7%	44.2%	38.5%	5.8%			
Q5. Tourism is likely to put more pressure on local	1.770	1.570	7.770		50.570	0.070			
services such as policy, public safety or refuse	3.8%	11.5%	3.8%	23.1%	53.8%	3.8%			
collection.									
Q6. Tourism is likely to result in traffic congestion.	1.9%	1.9%	5.8%	21.2%	67.3%	1.9%			
Q7. The prices of goods and services are higher than in	3.8%	9.6%	11.5%	23.1%	48.1%	3.8%			
the rest of Spain because of tourism.	3.870	9.0%	11.370	23.170	46.170	3.870			
Q8. The price of the land is higher than in the rest of	5.8%	9.6%	11.5%	25.0%	44.2%	3.8%			
Spain because of tourism.	3.070	7.070	11.570	23.070	77.2/0	3.070			
Q9. Tourism development is likely to create a positive	_	9.6%	26.9%	30.8%	28.8%	3.8%			
impact on the cultural identity of the community.		7.070	20.770	30.070	20.070	3.070			
Q10. Tourism development is likely to provide an	5.8%	26.9%	21.2%	23.1%	19.2%	3.8%			
incentive for the conservation of natural resources.	0.070	20.570	21.270	20.170	17.270	5.570			
Q11. The results of tourism development are, globally,	3.8%	11.5%	25.0%	30.8%	23.1%	5.8%			
positive.									
How much you would oppose or support?	1	_	1	4	-	NIA			
From 1=Strongly oppose to 5=Strongly support	1	2	3	4	5	NA			
Q12. Attraction designed for large numbers of tourists	23.1%	15.4%	13.5%	26.9%	21.2%	-			
such as theme parks. Q13. Nature-based tourism development	30.8%	40.4%	17.3%	1.9%	9.6%	_			
Q14. Cultural or historic based attractions (visitor				1.9/0	9.070	-			
centers, museums,)	61.5%	30.8%	7.7%	-	-	-			
Q15. Cultural and folk events (concerts, art and crafts,									
dance or festivals)	61.5%	21.2%	13.5%	1.9%	1.9%	-			
Statements about tourism									
From 1=Strongly disagree to 5=Strongly agree	1	2	3	4	5	NA			
Q16. The Balearic Islands' environment has been	2.00/	15 40/	22 10/	40.40/	12.50/	2.00/			
destroyed, mainly by tourism	3.8%	15.4%	23.1%	40.4%	13.5%	3.8%			
Q17. There would have been less environmental									
degradation if economic development had not been	3.8%	17.3%	19.2%	42.3%	9.6%	7.7%			
based on tourism									
Q18. It is necessary to reduce the number of tourists, if	9.6%	23.1%	17.3%	26.9%	11.5%	11.5%			
the regidents' welfers has to improve	9.070	23.1/0	17.570	20.970	11.5/0	11.570			
the residents' welfare has to improve.									
Q19. It will be desirable to increase the number of	3 8%	3 8%	15 /1%	28 8%	11 2%	3 8%			
Q19. It will be desirable to increase the number of tourists during the wintertime.	3.8%	3.8%	15.4%	28.8%	44.2%	3.8%			
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Q19. It will be desirable to increase the number of tourists during the wintertime.  Q20. I agree with the fact that the tourist tax must be paid only by hotel tourists	3.8%	3.8%	15.4% 13.5%	28.8% 15.4%	44.2% 9.6%	3.8% 7.7%			
Q19. It will be desirable to increase the number of tourists during the wintertime.  Q20. I agree with the fact that the tourist tax must be paid only by hotel tourists  Q21. Hotel businessmen of the Balearic Islands are	23.1%	30.8%	13.5%	15.4%	9.6%	7.7%			
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Q19. It will be desirable to increase the number of tourists during the wintertime.  Q20. I agree with the fact that the tourist tax must be paid only by hotel tourists  Q21. Hotel businessmen of the Balearic Islands are one of the best in the world  Q22. Residents welfare is better now than fifty years ago  Q23. Immigration from the rest of Spain, as featured in	23.1% 3.8% 3.8%	30.8% 23.1% 11.5%	13.5% 40.4% 19.2%	15.4% 13.5% 32.7%	9.6% 3.8% 23.1%	7.7% 15.4% 9.6%			
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Table 2: Estimated ordered logit models

	age	gend	child	ymun	inc	increl	bspain	bnorth	bsouth	lmall	lmen	leivi	pop	bedpop	N	LR Chi <sup>2</sup>	Pseudo R <sup>2</sup>	L-Like- lihood
Q1					.341	192ª	.348ª			1.003	.911	.929	.175		717	44.11	0.032	-678.37
Q2	.017	.434	.223		.106a	280				.386			.104a		696	43.79	0.028	-754.73
Q3		.615	.150a		.159	216	.415								703	42.10	0.027	-762.80
Q4		.355	.166							464	767			.187ª	791	28.59	0.013	-1057.48
Q5		.300		.011				960						.176ª	773	24.67	0.012	-1023.52
Q6		.207ª						808ª			.604	.545	.104	.208	791	21.10	0.011	-964.51
Q7			152						692					.264	774	13.02	0.007	-906.07
Q8	.011													.197	787	9.52	0.005	-997.24
Q9	.018					173	.319	1.161							763	30.86	0.014	-1055.03
Q10		.246a						.827ª						.207	786	11.70	0.005	-1198.56
Q11	$.008^{a}$	.329			.129	246	.432								684	31.98	0.016	-961.45
Q12			186			.229	406								785	25.36	0.010	-1210.86
Q13							599				411ª	.527a		.293	791	32.95	0.013	-1219.93
Q14						.249						.609	.167		778	33.91	0.017	-936.05
Q15						.305							.065a	.198	791	18.74	0.010	-915.16
Q16	015			.013		.276		721							759	28.53	0.013	-1087.08
Q17					096ª	.270		-1.239	-1.188					291	691	38.70	0.020	-931.81
Q18				.012		.376								.218	745	33.44	0.015	-1133.38
Q19	.014			106		353						.594			760	41.30	0.019	-1080.63
Q20		170a			116a	.289						.599		.128a	701	22.04	0.011	-1002.17
Q21	.021				.119					.533	.494a		.195		642	32.04	0.017	-919.09
Q22	.019	.287ª		009a		341		854				.705			633	36.85	0.023	-797.41
Q23	.011					254	1.039				.407ª				749	64.82	0.029	-1070.43

a denotes significance at 10%. The rest of the parameters are significant at 5% level. Ancillary parameters are not reported here for simplification.

In reference to the estimation process, a first step involved the estimation of the twenty-three models including all the socioeconomic variables and all the congestion measures. Stata 8.1 © econometric software package was used in order to obtain the estimations. However, the high correlation between some variables and the consequent lack of significance of their estimated parameters suggested that the number of explanatory variables should be reduced following a 'general to specific model' strategy (Hendry 1995 and Charemza and Deadman 1992). Although, initially, ordered logit and ordered probit models were both used, because of the lack of significant differences between the two models, only the ordered logit models are provided in Table 2. In this line it is important to highlight that the reference group for the estimation results is a woman with no children, born in the Balearies and living in Palma. Results can be qualified as satisfactory in terms of the LR Chi<sup>2</sup> tests, in the sense that all the estimated models include a set of variables that were jointly significant. Nevertheless, in all cases, a low value for the pseudo  $R^2$  was obtained, showing the models' low explanatory power.

For the independent variables, it seems clear that the level of dependence of the family's incomes on tourism (*increl*) is one of the most important issues in determining the residents' opinions and attitudes. Thus, the *increl* variable was present in 65% of the estimated models. Meanwhile, other socioeconomic characteristics like age (*age*), gender (*gend*), level of personal income (*inc*) being born in Spain (*bspain*) or in other European countries (*bnorth*) also seem to play an important role in the determination of host attitudes, although their presence level in the estimated models is around 26%-30%. Although other socioeconomic variables can be determinant for any particular question, they generally have a minor influence on resident attitudes.

On the other hand, in reference to the congestion variables, it is important to highlight that the population of the municipality, where the interviewee is living, (pop) has been a significant determinant only for 22% of the estimated models, while for the ratio between the number of beds for tourist accommodation and population (bedpop) this percentage is 43%.

In reference to the signs, the estimated parameters of the congestion variables indicate, in general, that in municipalities with a higher congestion of hotel beds per inhabitant, residents are usually less prone to attribute the multiple problems to tourism or are simply less concerned about such issues. In this context, the positive effects of tourism such as the creation of jobs, the attraction of investment or the protection of natural areas can be related to a higher tourism congestion in the municipality of the interviewee. Meanwhile the negative effects such as the change in the local culture, the pressure on local services, the traffic congestion and a higher level of prices are also related to higher tourism congestion. Unfortunately, congestion variables for the general question Q11 on the global balance of tourism development were not significant. However, from the results of questions Q13, Q14, Q15 and Q19, it seems clear that individuals living in more congested areas are those with a higher level of support to the new tourist developments and attractions. On the

other hand, they present a lower level of agreement with the hypothesis that there would have been less environmental degradation if economic development had not been based on tourism. Then, to summarize things, it can be argued that the development of an area as a tourist resort seems to spur local residents of the Balearies to form a favorable opinion of the impacts of tourism.

#### 5. CONCLUSIONS

In a context in which local resident attitudes toward tourism are considered to be dependent on a set of factors that have been widely described and analyzed in literature, this study models resident opinions of different environmental aspects of tourism development. Given the discreet nature of the variable that was modeled, ordered logit and probit models were used to ensure correct specification.

The main conclusions of this study coincide with previous studies in the field of socioeconomic determinants (Teye et al. 2002 and Besculides et al. 2002). However, the results have also evidenced the existence of a relationship between the density of tourism in a municipality and the local resident perceptions and attitudes toward tourism. In general, results show that the higher the density of tourism, the more favorable people are to tourism development and the less worried they are about its possible negative repercussions.

Although this conclusion can be attributed to the residents' financial and professional dependence on tourism, it is important to emphasize that it contradicts the results of other studies like those of Smith and Kranninch (1998) or Pearce (1980), where it is argued that a higher density of tourism leads to a greater awareness by residents.

One possible explanation for this divergence might be the limited geographical dimensions of the municipalities under study and the broad scope of the negative externalities of tourism. Consequently municipalities with few tourist beds would not benefit economically from tourism whereas they would be affected by the environmental externalities that the industry generates. Anyhow, this is a specific issue that will have to be studied in future research.

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## L'OPINION DES RÉSIDENTS PERMANENTS VIS-A-VIS DE L'AFFLUENCE TOURISTIQUE

Résumé – Les études sur l'opinion des populations locales se sont développées depuis 20 ans et de nombreuses recherches ont été réalisées pour identifier les facteurs qui influencent la perception et les attitudes des résidents permanents des villes touristiques vis-à-vis du tourisme. Il apparaît de plus en plus, dans les opinions exprimées, que l'expansion du tourisme peut générer des dégradations à l'environnement comme la surexploitation et parfois même l'épuisement des ressources naturelles. Cet article étudie comment l'affluence touristique est perçue par un échantillon de résidents permanents des villes des îles Baléares. De manière générale, les résultats montrent qu'une densité plus importante d'équipements touristiques dans une ville induit de la part des citoyens une opinion plus favorable vis-à-vis du tourisme.

#### OPINIONES DE LOS RESIDENTES FRENTE A LA CONGESTIÓN TURÍSTICA

Resumen – La investigación sobre las actitudes de los residentes ha estado al alza en las dos últimas décadas con varios intentos para identificar los factores que determinan las percepciones, opiniones y actitudes que los residentes muestran hacia el turismo. Diversas encuestas han puesto de manifiesto la creciente preocupación de que la expansión del turismo puede conllevar costes ambientales, como el agotamiento o la sobreexplotación de los recursos naturales. Este estudio analiza la relación entre la congestión turística y las percepciones y actitudes de los residentes de la comunidad local hacia el turismo, utilizando las opiniones de los habitantes de las Islas Baleares. En líneas generales, los resultados apuntan a que una mayor densidad de plazas de alojamiento hotelero implica un mayor grado de tolerancia por parte de los residentes de la zona.