A DISCRETE CHOICE MODELLING ANALYSIS
APPLIED TO THE CASE OF TOURISM IN RIMINI

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PRELIMINARY DRAFT:

Abstract

Tourism is a primary industry for many local areas. When dealing with the evaluation of sectorial policies, special difficulties arise because of the peculiar nature of the tourist experience, which can be seen as a composite good arising from the combination of a set of basis characteristics. In this paper we focus on the evaluation of a set of characteristics which are likely to influence the tourist evaluation of Rimini, a popular Italian resort, as a holiday destination. In order to analyse the relationship between these characteristics and tourists we use a discrete choice modelling approach, a well known technique based on "stated preferences". Within this framework, we are able to test some conjectures about tourists' behaviour and to verify whether current as well as potential characteristic changes in the Rimini's holiday package are in accordance with tourist preferences.

1. Introduction

Rimini is a mass tourist destination in its maturity phase. For many years, very few novelties have been designed and introduced, so that the town, at least implicitly, has been mainly focusing on the needs of tourists currently served. As a consequence, "new" types of tourists are unlikely to be attracted by a place already stiff of people.

In fact, Rimini's overall supply has remained largely unchanged and the attractiveness of its tourist product has decreased in the last decades, both in relative and absolute terms (number of stays).

This is partially due to the fact that tourists' behavior has changed. Not only people's needs and the perception of holidays has changed, but also the organization of labour. The same number of days of holiday is now spanned over the year, and consequently split into shorter but more frequent vacation breaks. In general, it is thought that there is a long run demand trend in favor of "hit and run" holidays, fostered by the reduction in transportation costs, the increase in the number of days off, the easier and more precise access to detailed information on tourist products and destinations, and the larger income per capita. The fall in the average duration of holidays is particularly marked in Rimini, where in addition to a slackening growth in overnight stays there has been an increase in the number of arrivals. This shorter average stay have yielded negative externalities in terms of road conditions and pollution, which have reduced the carrying capacity of the destination and negatively affected the value of tourist product. [1]

It is nowadays openly recognized that the occurrence of these phenomena call for a redefinition of Rimini's tourist supply, in order to maintain and possibly recover lost market positions. It must be recognized that the municipality, as well as public and private organizations and firms, have tried to contrast the mentioned negative trend, namely by proposing new projects and business strategies based on their perception of the problem, and affecting those factors they believe to be at the basis of this trend. In particular, much effort has been spent to customize young people.

Even if rational, there is no guarantee that this strategy is correct, since customizing younger people has uncertain results. Difficulties in evaluation arise since the label "tourism" indicates a multifaceted and heterogeneous product demanded by different categories of individuals, with diverse needs and perception of tourism: for somebody tourism is mainly perceived as time devoted to leisure activities, to others is a way to see other people and practice unusual activities (swimming, dancing etc.), visit new places, meet friends and relatives. Consequently, a tourist destination, with its own features (natural and artificial resources and attractions) and its specific organization of the product package, seems to be more suitable for a particular kind of tourist than for others. At the same time, specialization might be incomplete and the same destination can give hospitality to two or more categories of tourists, in the same season. For this reason, destinations should strategically identify which types of tourists best satisfy and maximize their main goals (in particular tourist number and income inflows).

Assessing the actual preferences of tourist in Rimini from the existing source of data is a difficult task since a major share of them does not buy a predetermined, fixed set of services

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[1] Even worse, tourists tend to concentrate their stays during weekends, increasing the level of overcrowding and reducing a uniform use of tourist infrastructures: higher tourist peaks require larger scale facilities and establishments, completely exploited only during week-ends.

and tourist package, but self-produces their best holiday.[2] In this paper, we adopt a complementary approach with respect to the analysis based on market data. We examine the impact on tourists' perception of some possible interventions and policies aimed at targeting tourism in Rimini by means of a survey carried out on a sample of experienced tourist representative of the tourist population. Two main questions are addressed. First, what potential alternatives can be offered to experienced tourists to encourage a longer stay in Rimini? Second, what kind of site characteristics and infrastructure make Rimini attractive and to what types of tourists? Put in another way, which best combination of characteristic makes a holiday package ideal for particular types of tourists?

We aim to study how tourist's utility is affected by diverse combinations of some characteristics which we consider to be central for the decision to keep spending a holiday in Rimini. Special attention is paid to some characteristics on which the local policy makers can actively intervene. All the scenarios submitted to the respondents are realistic evolutionary dynamics that potentially could be pursue by local policy makers and achievable with suitable policies and limited public investments.

Tourists' preferences are elicited by means of the discrete choice modelling technique, which replicates, as a controlled experiment, the choice and the selection processes implicitly followed by the tourist. With this method we define a set of alternative scenarios mix attributes with different levels consisting of a different risk of overcrowding in the seaside location, the "pedestrianization" of the main promenade, infrastructural impacts on the beach, different types of cultural and recreational tourist services, possibility of evening and night opening of seaside resort to organize cultural events, and a daily full board accommodation price in a three star hotel.

The use of standard econometric techniques enable us to estimate the relative weight of each attribute in affecting the tourists' choice of their type of holidays. We also estimate the effects on the probabilities to choose some destinations as determined by various combinations of these six attributes. Finally, monetary evaluations of these characteristics are estimated and presented. A careful analysis of the mostly preferred bundle of tourist packages offered by Rimini has important implications on its ability of tourism attraction and on its capacity of maintaining its groups of experienced tourists.

The paper is organized as follows. In section 2, we describe the structure of discrete choice experiments and the related theoretical and empirical model. Section 3 discusses the administration of the survey to tourists and illustrates the sample arisen from the survey. In section 4 we present the results obtained with some statistical models used to process the answers to the choice experiment, and illustrates some policy implications. Section 5 concludes.

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[2] About the 83% of tourists in Rimini (52% of foreign and 91% of Italian tourists) self-organizes his holidays, without making use of tour operators or travel agencies (Scorcu and Vici, 2006).

2. Theoretical framework and econometric tools

The choice modelling is a stated-preference approach as it studies individual behaviour and estimates the related values of the goods by asking people to state their own preferences for alternative circumstances. The method is used in many fields (marketing,[3] health, cultural, transport, environmental economics etc.). In recent years, it has been applied in tourism economics for analyzing destination choice on the basis of the attractiveness of destination and trip attributes (Huybers and Bennett, 2000; Huybers, 2005; Papatheodorou, 2001; Crouch and Louviere, 2004), recreation demand (Breffle and Morey, 2000), and demand for heritage attractions (Costa and Manente 1995; Morey *et al.* 2002; Apostolakis *et al.*, 2005).

One of the main advantages of the method is that it allows for analyzing hypothetical situations in those cases where no market exists. Consequently, after the elaboration of the data, it facilitates a product's development, resource allocation decisions and policy interventions. The theoretical foundation of the discrete choice modelling is Lancaster (1966, 1971), who developed a characteristic approach for the analysis of demand. Since choice modeling elicit preferences from consumers, this method provides information about preference orderings within a set of choice options. The analysis of the data is based on random utility theory (originally proposed by Thurstone, 1927). The implementation of the technique is based on asking respondents to choose among different alternative products, defined in terms of product attributes. Differences among alternative are due to (systematic) combinations of diverse attribute levels. Having submitted choice sets, the resultant sequence of choices enables to model the probability of any alternative to be chosen.

In accordance with the random utility model, the chosen alternative among those proposed in the choice experiment corresponds, ceteris paribus, to the combination of attribute levels that brings the highest utility. In other words, the choice made by respondents identifies the combination of the attribute levels which maximizes the utility across alternatives in a given choice set.

The econometric analysis presented in section 4 is based on a standard discrete choice conditional logit model. Formally, given a sample of H individuals, with $h=1,2,\ldots\ldots.H$ and a set of alternative choices, $j=1,\ldots.J$, the random utility specification can be represented as follows (e.g. Louviere *et al.*, 2000):

$$U_{hj}=V_{hj}+\varepsilon_{hj}, \qquad\qquad\qquad [1]$$

where the latent and unobservable utility value for the choice alternative j made by consumer h is given by the sum of a deterministic component with a random term, ε_{hj}. The conditional logit specification is obtained by assuming that these random terms are independently and identically distributed (IID) according to a Gumbel (Extreme Value Type 1) distribution. T

The deterministic component usually takes the following linear additive form:

$$U_{hj} = \beta' x_{hj}. \qquad\qquad\qquad [2]$$

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[3] In marketing studies it is often called "conjoint analysis" and presents some differences with respect to the economic approach. See Bennett and Blamey (2001).

With this specification, the deterministic component is a function of the attributes of the alternatives and (in principle) of individual characteristics, x_{hj}, and a set of unknown parameters, β.

Given the presence of the random term in equation 1, the probability of choosing the alternative i can be expressed as follows:

$$P(i \mid C_h) = P[(V_{ih} + \varepsilon_{ih}) > (V_{jh} + \varepsilon_{jh})]. \qquad \forall i, j \in C_h \qquad [3]$$

Expression [3] defines the probability that consumer h chooses i within the choice set C_h as the probability that the sum of the systematic and random utility terms of option i is greater than the corresponding terms for any other option j in the choice set C_h.

The IID assumption across alternatives for the εs entails the property of independence of irrelevant alternative (IIA), which means that the relative probability of an alternative being chosen over another is independent of the availability of additional attributes or alternatives. Broadly speaking, once a choice has to be taken between two alternatives, the decision does not depend on the existence of other alternatives (McFadden, 1984). Therefore, if some alternatives are excluded from the choice set, the estimates are still consistent. Thus, the information provided by a dataset with a smaller number of choice alternatives is still representative of consumers' behaviour (Train, 2003). Hence, provided that IIA holds, in order to mimic the choice process actually undertaken by consumers in the real life, econometric analyses do not need to consider simultaneously all real alternatives (which would make experiments or data collecting quite complex and difficult).

In the conditional logit model, the probability that an individual h picks alternative i out of J alternatives can be represented as follows:

$$P[y_h = i] = \frac{1}{\sum_{j=1}^{J} \exp[-(V_{ih} - V_{jh})]}, \qquad [4]$$

or

$$P[y_h = i] = \frac{\exp(\beta' x_i^h)}{\sum_{j=1}^{J} \exp(\beta' x_j^h)}, \qquad [5]$$

where y_h is a choice index, which represents the choice made by individual h.

The estimation of equation (5) yields the β coefficients which can be used to evaluate the rate at which respondents are willing to trade-off one attribute for another. This substitution rate can be easily calculated by dividing the β coefficient of one of two attributes into consideration by the β coefficient of the other attribute and multiplying by -1.

$$Substitution\ rate = -\frac{\beta_k}{\beta_s}. \qquad [6]$$

When the attribute to be "sacrificed" (x_s) in order to obtain more of the other (x_k) is expressed in monetary terms, this estimated trade-off is an "implicit price", i.e. the amount of money respondents are willing to pay in order to obtain more of the other attribute (x_k). In general, the coefficient used to value the marginal substitution rates in monetary term is the one

associated with an attribute expressed in monetary term and is an approximation of the negative of the marginal utility of income.[4]

When attributes are discrete variables, implicit prices take the form of "values of level change", for which the substitution ratio is

$$Substitution\ rate = 1 - \frac{\beta' \Delta x_i}{\beta_s}. \qquad\qquad [7]$$

These ratios provide important information for firms and public authorities aiming to evaluate the relative weight of each attribute (characteristics of tourist offer) when a modification to the structure of the current supply is introduced.

3. Structure of the the survey and exploratory analysis of the data

A face-to-face survey was conducted in the months of July and August 2005. Most of the questionnaire was designed to gather information on the perception of tourists about some characteristics of current or hypothetical scenarios in Rimini, to be used in the choice modelling model. The collected information includes the individual features of tourists, the type of accommodation, the average daily expenditure, the characteristics and the evaluations of the tourist experience in Rimini.

The sample plan aimed to be representative of the typical experienced tourist of Rimini (i.e. who recently spent his or her holidays in Rimini, during the summer season), but clearly cannot properly represent all potential tourists of this destination. The sample plan was based on *a priori* information given by a previous research on tourists' behaviour in Rimini and on official data on overnight stays.[5] On this basis, 20% of interviews were made to foreign tourists, and 80% to tourists coming from the twenty Italian regions. Both genders have been equally represented in the sample.

Interviews were carried out in different places in order to collect information also on those tourists whose main reason to spend holidays in Rimini is not the seaside resort. In particular, given a sample size of 600 interviews, 300 respondents have been contacted on the beach, during the day (with a maximum of 3 interviews per beach front concession), 150 in three-star hotels (with a maximum of 5 interviews per hotel, avoiding to contact people in hotels nearby the beach areas already covered by interviewers), 100 in pubs, whereas the rest of 50 interviews have been conducted in the historical city centre.[6]

The questionnaire is composed by 4 sections (see Appendix). The first section collects information on respondents' socio-economic and demographic characteristics, namely

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[4] These estimates rely on the assumption that the marginal utility of income is constant over the range of implicit income changes involved by the policy. This assumption is reasonable if the cost of a choice alternative represents a small amount with respect to individual income.

[5] See ISTAT (2004) and AA.VV. (2004).

[6] It was interviewer's duty, firstly, to annotate the date, place of each interview and its duration, and, secondly, at the end of the interview, to evaluate the level of comprehension, interest and response reliability of each respondent.

gender, age, place and region of origin, nationality (for foreigners only), educational qualifications, professional status etc. In the second section, respondents were asked to specify their holiday organization, namely the form of booking (e.g. holidays organized by tour operators or directly by tourists as "self-producers"), the means of transport used, the type of accommodation used and other information on their preferences and motivations for their choice to spend their holidays in Rimini. The aim of these questions is to identify the relevant segments of tourist demand. Moreover, this information set allows us to have a complete picture of the sample and to judge whether it is representative of the whole tourist demand in this destination.

Section 3 of the questionnaire contains the choice experiment, for which the main difficult task was the development of a scenario able to account for the complexity of Rimini's offer, which combines "sea and sunshine", historical and recreational aspects. After a short introduction which explains the main motivations of the survey, the basis scenario is described. Respondents are asked to imagine spending in Rimini a six-night holiday namely a mainly beach and seaside vacation with accommodation near the seaside resort in a good quality (three star) hotel. The choice set is composed of two alternative holidays which share the previous description and differ in terms of the levels of six different attributes.

The attributes and their levels defining the different alternatives are briefly listed and described in the Table 1 below. The attributes considered are the aversion to overcrowding in the seaside location, the preference for pedestrian areas near the main attractions, different impacts on a uncontaminated beach, the types of sea and cultural holiday bundles, the possibility to use the beach for night cultural events, and the cost per night per person in a full board accommodation in double room in a three star hotel - the typical accommodation chosen by tourists in Rimini.

Table 1: Definition of attributes and their levels

1. Risk of overcrowding in seaside location (and thus it is less easy to move around in the location):
- High risk: Overcrowding does not guarantee neither easy access nor easy movement within the destination to use public services (for ex. cinema, theaters, discos etc….) or toward near destinations (on the coast or in the hinterland).
- Low risk: The seaside location guarantees both easy access and easy movement within the destination to use public services (for ex. cinema, theaters, discos etc….) or toward near destinations (on the coast or in the hinterland).
2. The main attraction of a seaside location is the zone close to the sea (the promenade). In Rimini:
- The promenade is pedestrian area: with huge free spaces for pedestrians and cyclists; parking spaces remain outside the tourist area and motor-vehicles are not allowed; infrastructure laid out for leisure and free-time.
- The promenade is open for vehicles: few open spaces; cyclists use the sidewalk; parking-spaces are close to the sea and motor-vehicles are allowed to circulate.
3. An uncontaminated beach:
- Minimal impact: On the beach no service and facility is provided and there is no nearby buildings.
- Medium impact: On the beach essential services and facilities (lifeguard, first aid, information and gastronomic services, etc…) are provided in permanent buildings.
- Temporary high impact: On the beach several temporary services and facilities are provided in temporary buildings dismantled in wintertime.
- Permanent high impact: Several buildings on the beach and wide supply of services and facilities. All buildings are permanent.
4. Combination of sea holiday and a cultural holiday (Rimini as a city of Arts and of Museums) :
- Sea: Sea holiday only.

	- Sea and monuments: Sea holiday with guided visit of the city's cultural heritage.
	- Sea, monuments and Museums 1: Sea holiday, guided visit of the city's heritage and entrance to the Museo della Città (guided tour in the evening).
	- Sea, monuments and Museums 2: Sea holiday, guided visit of the city's heritage and entrance to the ethnic museum Diniz Rialto (guided tour in the evening).
5.	Evening and night opening of seaside resort:
	- Closed beach: evening-night closing of seaside resort. The public beach is accessible with restrictions.
	- Open beach: evening-night opening of seaside resort to organize cultural events without service facilities.
6.	Daily cost per person per night (full board accommodation in double room in a three star hotel). The various possible holiday options to choose from are priced as follows (the room's price is in brackets):
	- 30(60) euros
	- 40 (80) euros
	- 50 (100) euros
	- 60 (120) euros

These six attributes and their different levels are the result of several research meetings and a pilot test of the survey carried out in the first half of July 2005. This pilot test was very useful to prove that the attributes were comprehensible, clearly presented, differentiating among alternatives and overall relevant to the tourists. The pilot test confirmed also that the structure of the survey was such to ingenerate some expectation that the information provided by respondents could be used in making decisions in some fashion. If the respondents view the process as entirely hypothetical or useless, then their responses will not be meaningful in any economic sense (Carson *et al*. 2000).

The reasons why these attributes were selected are several. In general, we believe they are important for the evaluation of the destination, and can specifically affect tourist demand. For the risk of overcrowding, we know that, on the one hand, some tourists in Rimini like crowded places. However, , traffic congestion can reduce available spaces for tourists and increase the amount of time spent to reach some attractions.

Moreover, the analysis of sustainable tourist products is also important since the tourist package offered is likely to be in the maturity phase, and careful analyses to improve the tourism supply are certainly required. This reason motivates the setting up of the attributes on product differentiation in terms of (new) cultural activities.

In order to make clear and homogeneous the comprehension of attributes and to facilitate the individual decision process, the oral explanation of these characteristics and levels was accompanied by the presentation of drawings and photos representing each scenario. Moreover, to make simpler these choices, an exemplifying card is presented before submitting the cards with the two alternative holidays (Figure 1). Overall, respondents were asked eight choice questions with different pairs of hypothetical holiday alternatives. The interviews were split in four groups whose respondents had to answer to a different set of 8 choice cards. In each group, the cards submitted were the same but presented every time with a different sequence, in order to avoid any question order bias.[7] An orthogonal

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[7] We checked whether some respondents always selected the option on the left, or the option on the right as their answers to all choice questions. We found that one individual out of 605 picked the option on the left in all choice questions, whereas other two respondents picked the option on the right in all choice questions.

fractional factorial design was used in order to get these 32 alternatives, while reducing the number of profiles at a convenient size and maintaining the reliability of results. [8]

Figure 1: An example of the card used in the discrete choice model

Feature of holiday	Type A holiday	Type B holiday
Risk of overcrowding in main point of attraction	High	Low
An uncontaminated and untouched natural environment as a primary attraction	Promenade for pedestrians	Promenade open for vehicles
The quality of promenade	Minimal impact	Permanent high impact
Combination of a beach holiday and a cultural holiday	Sea	Sea, monuments and museums 2
Evening opening of Seaside resort	Closed beach	Open beach
Daily cost per person per night	30	60
Preferences	☐	☐

We did not explicitly consider a "status quo" alternative. This is implicitly defined (and can be identified) in terms of a specific set of attribute levels provided in the questionnaire. This explicit omission should not bias our results because we refer to experienced tourists[9] and the number of uncertain choices should be low (Adamowicz et al., 1998).

In order to assess the reliability of answers, section 4 of the questionnaire contains some questions reserved to the interviewer, who must give his opinion on respondent's level of comprehension, difficulty in choosing his best alternative and degree of interest. Interviewers annotated the degree of comprehension, interest and facility in answering questions, and, in particular, in choosing the alternatives. Problems of poor identification of alternative scenarios were not relevant. The reported level of comprehension of the questions was high (92% of the sample understood the questionnaire) and the perception of the differences in scenarios was quite evident (80% of the sample found alternative distinction easy). Interviews took on average 15 minutes.

As it emerges from the descriptive statistics below, our sample is consistent with our established sample plan, but it is also representative of the whole tourist population of Rimini, as given by the official data provided by the National Institute of Statistic (ISTAT, 2004).

Table 2: socio-economic characteristics of our sample

Gender	Freq.	%	Sample plan	Age	Freq.	%
Male	305	50.41	50.00	< 30	194	32.07

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[8] The full factorial of all the possible combinations of attribute levels would yield 512 alternatives.

[9] In this situation, also the alternative "I do not want to go on holiday" should be largely irrelevant, and has been not considered.

Female	300	49.59	50.00
Total	605	100.00	100.00

30 - 44	188	31.07
45 - 59	156	25.79
≥ 60	67	11.07
Total	605	100.00
Mean	39.50	min 16/ max 86

Education	Freq.	%
No educational title and Primary school	42	6.94
Intermediate school	170	28.10
High school	270	44.63
University certificate, Degree and Postgraduate courses	123	20.33
Total	605	100.00

Place of interview	Freq.	%	Sample plan
Beach	296	48.93	300
2 star hotel	15	2.48	0
3 star hotel	128	21.16	150
4 star hotel	12	1.98	0
City centre	52	8.60	50
Pubs	102	16.86	100
Total	605	100.00	600

Income	Freq.	%
< 5000	7	1.70
5000 - 7499	28	6.80
7500 - 9999	29	7.04
10000 - 12499	76	18.45
12500 - 14999	45	10.92
15000 - 19999	91	22.09
20000 - 24999	53	12.86
25000 - 39999	46	11.17
≥ 40000	37	8.98
Total	412	100.00
Mean	20,245	
Median	15,600	
% responses over 605	68.10	

Nationality	Freq.	%	Sample plan
Italian	484	80.00	80.00
Foreign	121	20.00	20.00
Total	605	100.00	100.00

Origin of Italian tourists	Freq.	%	ISTAT 2004
North Italy	337	69.63%	64.80%
Middle Italy	85	17.56%	18.46%
South Italy and Islands	62	12.81%	16.83%
Total	484	100.00	100.00%

Origin of foreign tourists	Freq.	%	ISTAT 2004
West Europe	95	79.17	55.5%
East Europe	19	15.83	29.42%
Other countries	6	5.00%	15.08%
Total	120	100.00%	100.00%

As showed in Table 2, 50.41% of the respondents were males; 296 respondents had been contacted on the beach, 155 in hotels, 52 in the city centre and 102 in pubs. Eighty per cent of respondents are Italian, whereas the 20% are from other countries. According to the sample plan, the majority of Italian respondents (about 70%) comes from North Italian regions.

Eighty per cent of foreign tourists live in Western European countries (Germany is the country more represented both in our sample and in the official statistics), others come from Eastern European and overseas countries. The average age of the respondents is 40, but adequate variation of this sample character has been insured. Over 60 are underrepresented in our sample; indeed, older people tend to spend their holidays in different periods (May, June or September) for enjoying of less warm climate and of low-season fares. About 64% of respondents had received a high school certificate, whereas only 20.33% had received a university educational qualification .

Table 3: Characteristics of the experienced tourist product

Use of Internet	Freq.	%		Use of tour operator	Freq.	%
Yes	147	24.30		Yes	104	17.19
No	458	75.70		No	501	82.81
Total	605	100.00		Total	605	100.00

Accommodation type	Freq.	%		Means of transport	Freq.	%
Overnight stays	18	3.42		Car	425	70.25
B&B	70	13.28		Train	101	16.69
Half board	90	17.08		Air	23	3.80
Full board	349	66.22		Coach	54	8.93
Total	527	100.00		Camper	2	0.33
				Total	605	100.00

Daily cost	Freq.	%		Travel with low-cost flight	Freq.	%
< 40	17	2.81		Yes	10	43.48
40 - 54	114	18.84		No	13	56.52
55 - 69	128	21.16		Total	23	100.00
70 - 84	185	30.58				
85 - 99	39	6.45				
100 - 124	86	14.21				
≥ 125	36	5.95				
Total	605	100.00				
Mean	76	min 15 / max 350				

Individual income is on average 20,245 euro per year, while median income is 15,600 euro. About 68% of the tourists answered this question.

Most tourists prefer the traditional full board accommodation in hotel (66.22%). A small percentage of about 18% booked their accommodation and travel through a tour operator, whereas the remaining 72% are "self-producers" who build their own tourist bundle. Given the high percentage of Italian tourists, a very small number of tourists traveled to Rimini by air (3.80%), and, among them, about 44% made use of low cost companies. Moreover, only 24% of respondents made use of the Internet to collect information on different activities and services offered in the tourist product or to book accommodation, travel, services etc. This is an index of the fact that Rimini hosts a very experienced tourism. On average, the stated daily expenditure for staying in Rimini (high season holiday), is 76 euro.

4. Econometric analysis and policy implications

The relative importance of the various attributes has been studied by means of econometric techniques described in section 2. As an additional exploratory analysis, we first present the results of a question where tourists stated in relative terms the role that each of the six characteristics played in the tourist destination choice process (see also Scorcu and Vici, 2006).

From Figure 1 we can see first of all that the cultural offer is not particularly appreciated by the Italians, whereas it is of interest for foreigners. Surprisingly, even if Rimini is known as one of the most famous mass tourist destination in Italy, and given the strong competition among tourist service suppliers, prices do not seem to be a relevant variable in their holiday decision process, in particular for week-end tourists with higher budgets. Moreover, neither overcrowding nor environmental sustainability aspects seem to significantly affect tourists' service packages composition.

Figure 1: Definition of attributes and their weights in tourist decision process
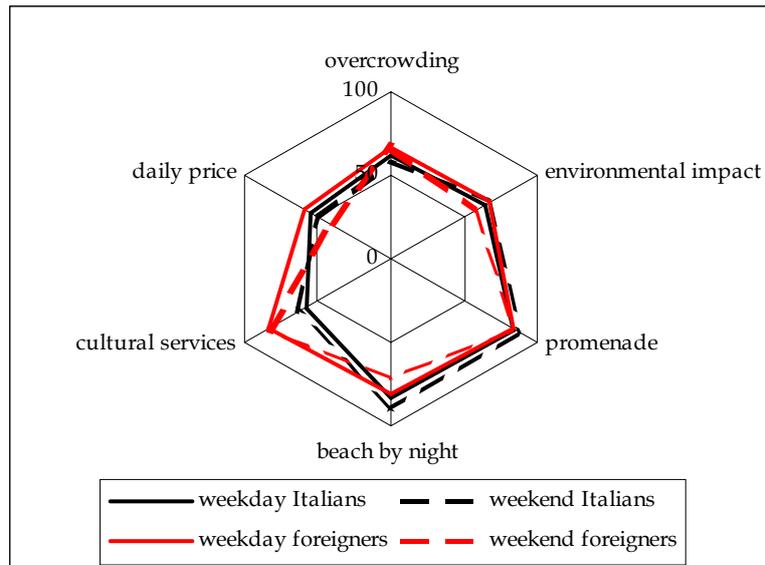
Source: Scorcu and Vici, (2006)

The conditional logit model has been estimated with different samples. Tables 4 and 5 illustrate the results of the econometric estimations. Firstly, the whole sample, the Italian and foreign tourist subsamples are examined (Table 4). We use these two subsamples in order to study whether the origin of tourists is essential in determining the demand of a particular tourist product, and also to identify which attributes play an essential role in affecting their choice of a tourist destination and the associated composed product. Secondly, we examine preferences and behaviours of tourists with different age. In general, young people have different needs, make use of diverse recreational services and facilities and plan their holiday differently from families and more aged people (table 5).

All the attribute levels are coded as dummy variables, with the exception of the daily cost attribute, which can take four different quantitative values corresponding to four distinct accommodation prices.

An important question is whether people pay the due consideration to all the six attributes, when choosing among the proposed alternatives. The maximum likelihood estimates show that for the whole and Italian samples all the attributes are statistically significant, with the exception of the high temporary impact of structures on the beach, probably because these effects might appear not so different from a high permanent impact (we were interviewing beach tourists that stay in Rimini during the summer season, and cannot appreciate the difference between these two scenarios).

Table 4: conditional logit model estimates on the whole sample and on the subsamples of Italian and international tourists

Variables	Whole sample		Italians		Foreigners		
	Coef.	z	Coef.	z	Coef.	z	Prob.

Variables	Coef.	z		Coef.	z		Coef.	z	
Alternative-specific constant	0.009	0.29		0.016	0.44		-0.033	-0.46	
promenade (pedestrians=1, vehicles=0)	0.541	16.53	***	0.534	14.56	***	0.570	7.70	***
risk of overcrowding (high risk=1, low risk=0)	-0.280	-8.62	***	-0.277	-7.57	***	-0.306	-4.19	***
minimal impact (excl. high permanent Impact)	0.062	3.16	***	0.067	3.44	***	0.091	0.24	
medium impact (excl. high permanent Impact)	0.146	2.25	**	0.148	2.05	***	0.157	1.08	
temporary high impact (excl. high permanent Impact)	0.187	1.13		0.228	1.10		0.032	0.73	
sea and heritage (excluded only sea)	0.241	4.44	***	0.249	4.13	***	0.173	1.37	
sea, heritage and city museum (excluded only sea)	0.317	4.92	***	0.273	3.77	***	0.468	3.23	***
sea, heritage and ethnic museums (excluded only sea)	0.298	5.15	***	0.306	4.71	***	0.275	2.14	**
seaside resort by night (open beach=1, closed beach=0)	0.777	23.54	***	0.777	21.01	***	0.774	10.42	***
daily cost of full board in a 3 star hotel	-0.007	-3.62	***	-0.004	-1.98	*	-0.017	-4.11	***
Log likelihood		-2857.581		Log likelihood	-2285.218		Log likelihood	-564.3812	
Pseudo R2		0.1482		Pseudo R2	0.1485		Pseudo R2	0.1589	
Number of obs		9680		Number of obs	7744		Number of obs	1936	

For foreigners, also a few other attributes do not seem to be relevant for the choice of a particular tourist product. The coefficient attached to the impacts of infrastructures on the beach (in all its different levels) is not statistically significantly different from zero. Foreign tourists do not perceive any significant difference between a tourist product composed by a beach only package and one with beach, sea and a visit to the local monuments. What mainly makes the difference is a product that combines seaside holidays with visits to monuments and museums. However, the reduced sample size of this subgroup could have contributed to the poor performance of significance tests.

In line with the common perception of young tourists' needs, cultural and environmental aspects are not significantly relevant for young tourists, whereas few characteristics make tourist products significantly different: the risk of overcrowding, the pedestrianization of the main promenade, the daily accommodation cost and the possibility to access to the beach even during the nights.

Table 5: conditional logit model estimates on different age tourist subsamples

Age	<30			30-44			45-59			≥60		
Variables	Coef.	z		Coef.	z		Coef.	Z		Coef.	z	
Alternative-specific constant	0.047	0.81		-0.009	-0.16		0.039	0.60		-0.040	-0.41	
promenade (pedestrians=1, vehicles=0)	0.429	7.32	***	0.498	8.32	***	0.696	10.60	***	0.657	6.78	***
risk of overcrowding (high risk=1, low risk=0)	-0.262	-4.50	***	-0.279	-4.65	***	-0.301	-4.63	***	-0.323	-3.28	***
minimal impact	0.159	1.51		0.293	2.77	***	0.175	1.41		0.050	0.29	

	Whole sample			Italians			Foreigners			Under 30		
(excl. high permanent Impact)												
medium impact (excl. high permanent Impact)	0.139	1.20		0.157	1.32		0.301	2.32	***	-0.175	-0.91	
temporary high impact (excl. high permanent Impact)	0.048	0.49		0.091	0.95		0.064	0.57		-0.047	-0.27	
sea and heritage (excluded only sea)	0.056	0.57		0.358	3.71	***	0.327	2.94	***	0.221	1.38	
sea, heritage and city museum (excluded only sea)	0.135	1.17		0.448	3.75	***	0.373	2.91	***	0.353	1.82	*
sea, heritage and ethnic museums (excluded only sea)	0.117	1.15		0.273	2.55	***	0.464	4.00	***	0.540	3.07	***
seaside resort by night (open beach=1, closed beach=0)	0.939	15.92	***	0.818	13.40	***	0.690	10.50	***	0.448	4.61	***
daily cost of full board in a 3 star hotel	-0.013	-3.82	***	-0.005	-1.54		-0.005	-1.25		0.001	0.05	
Log likelihood	-890.090			-881.860			-730.048			-322.776		
Pseudo R2	0.1726			0.1541			0.1561			0.1312		
Number of obs	3104			3008			2496			1072		

Since the present local policies mainly focus on young people, henceforth we explicitly consider the different effects and valuations of Italian, foreigner and young tourists. The β coefficients estimated under the conditional logit model are used to estimate the rate at which respondents are willing to trade-off one attribute for another. By normalizing with respect to the value of one attribute level parameter, a comparison among the other attributes can be done. For instance, if we set equal to one the parameter level of the closure to the traffic of the main tourist promenade from the whole sample model, we obtain the values of -0.52 for the risk of overcrowding, 0.11 for having an environment friendly beach front buildings, that increases if structures are more complete, and become equal to 0.27 and 0.35 for temporary or permanent high impact structures (table 6); 1.44 for the possibility to visit the beach during the night, whereas incremental values to have the possibility to visit the sole local monuments (0.45) or to combine these visits to the entry in traditional (0.59) or ethnic museum (0.55). The higher the ratio, the more central the characteristic is in the tourist product in relative terms. This means that the level of closure to the traffic of the main tourist promenade (supposing it could be measurable and achievable at different steps) a person is willing to give up in order to ensure, for example, free access to the beach during the night is -1.44.

Table 6: The relative weights of attributes

Relative weights	Whole sample	Italians	Foreigners	Under 30
$\beta_{promenade}/\beta_{promenade}$	1	1	1	1
$\beta_{overcrowding}/\beta_{promenade}$	-0.518	-0.518	-0.537	-0.611
$\beta_{minmal\_impact}/\beta_{promenade}$	0.114	0.125	0.160	0.371
$\beta_{medium\_impact}/\beta_{promenade}$	0.269	0.278	0.275	0.324
$\beta_{temp\_high\_impact}/\beta_{promenade}$	0.346	0.428	0.055	0.119

$\beta_{\text{sea\_monuments}}/\beta_{\text{promenade}}$	0.446	0.468	0.303	0.131
$\beta_{\text{sea\_monum\_museums1}}/\beta_{\text{promenade}}$	0.587	0.511	0.822	0.315
$\beta_{\text{sea\_monum\_museums2}}/\beta_{\text{promenade}}$	0.551	0.574	0.484	0.273
$\beta_{\text{beach\_by\_night}}/\beta_{\text{promenade}}$	1.438	1.457	1.360	2.189

Tourists attach a great value to the possibility of staying in the beach even during the night, where shows and tourist activities could be organized. This is particularly true for young people, who make an intensive use of services that Rimini offers by night more than other tourist categories. In relative terms, also the possibility to walk through the main promenade seems to be important for tourists. The impact on the environment of structures on the beach and the risk of congestion seem minor problems (probably because tourists spending their holidays in Rimini know a priori that a vacation in this destination in high season implies congestion).

Tourists from abroad pay a significant attention to the possibility to visit local monuments and the city museum (0.82), second only to the possibility to stay on the beach even during the night. Very little importance is attached to the impact of structures on the environment. However, this consideration might be conditioned by the restricted size of this sample.

When the attribute being "sacrificed" for the normalization is a monetary one, the trade-offs estimated are "implicit prices", the amount of money respondents are willing to pay in order to receive a change in the considered attribute. The estimates of implicit prices are made on a ceteris paribus hypothesis, namely for an increase in the attribute of interest, given that everything else is held constant. In Table 7, the implicit prices of each attribute are reported, which correspond to the individual willingness to pay for changes in the attribute levels and, therefore, in the utility function.

Table 7: Implicit prices

Level changes	Whole sample	Italian sample	International sample		Under 30	
Promenade for pedestrians	79.851	128.150		32.842		32.866
Risk of overcrowding	-41.402	-66.441		-17.645		20.076
Variation in beach impact from high permanent to minimal impact	9.088	16.002	NSS	5.241	NSS	12.185
Variation in beach impact from high permanent to medium impact	21.492	35.637	NSS	9.026	NSS	10.668
Variation in beach impact from high permanent to high temporary impact	NSS 27.590	NSS 54.827	NSS	1.821	NSS	3.688
Variation in tourist product from only sea to sea and monuments	35.604	59.882	NSS	9.962	NSS	4.320
Variation in tourist product from only sea to sea, monuments and traditional museums	46.862	65.531		26.998	NSS	10.318
Variation in tourist product from only sea to sea, monuments and ethnic museums	43.959	73.508		15.885	NSS	8.992

Beach open by night	114.788	186.669	44.655	71.970

These "prices" are useful in that they show the trade-off between attributes: they allow an analysis of the composition of potential alternative allocations of resources. In line with the relative weights of attributes, a comparison of the implicit prices of attributes affords some understanding of the relative importance that respondents hold for them.[10] What clearly emerges are the high amounts of money individual are inferred to be willing to pay for having the possibility to make use of the beach also during the night (114 euro for the whole sample). On the whole, these values are poorly reliable. Although respondents were sensitive to price differences within the experiment, apparently the weight given to the price attribute was very low. Moreover, it is also evident the relative low importance attached by foreign tourists to changes in the beach quality.

However, the empirical evidence may represent an important tool for policy makers and local managers who should design the combination of goods, services and activities with a view to offer tourist products that better satisfy tourists' needs, or, at least, the main holiday priorities of particular types or segments of tourists. Knowing their own market target, policy makers can enhance customer satisfaction, induce new tourist flows and increase tourists' willingness to pay for a product that fits much better individual needs.

Given that the questionnaire was submitted to tourists spending their holidays in Rimini, the sample is mainly representative of an experienced tourist demand i.e. people that spent their holidays in this destination at least once. Consequently, this analysis can be a useful tool in the improvement of the supply, aimed at satisfying current demand (and only indirectly the potential demand, provided that the preferences of the actual and potential tourists are similar).

By means of the estimates of a choice experiment, it is possible to predict the probability a given tourist product is purchased. We can simulate the behaviour of policy makers and construct different tourist packages, although any tourist could privately combine different tourist commodities and services and produce by himself tourist composite goods.

In this paper, a simulation of five hypothetical alternatives is performed (table 8): we conceived the different scenarios by a diverse combination of five attributes (imposing the same seasonal fare for all these alternatives) and attaching suitable labels to each scenario (entitled *status quo*, *only beach*, *environment friendly resort*, *Rimini by night*, *intensive Rimini*). However, it must be recalled that this exercise of simulation which considers more than two alternatives is based on the IIA assumption, which allows for creating particular products, actually only hypothetical, by different combinations of attribute levels.

Table 8: Simulation of the distribution of choice probabilities in a case of 4 choice alternatives (no difference in accommodation price)

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[10] Two considerations must be recalled in calculating the implicit prices: firstly, we are dealing with discrete level variations (and not marginal). Secondly, these estimates are based on the assumption that the marginal utility of income is constant. This last assumption may be reliable only when small level changes are considered (involving a thin share of the total individual income).

Attributes	Status quo	Only beach	Environment friendly resort	Rimini by night	Intensive Rimini
Promenade	vehicles	pedestrians	pedestrians	vehicles	vehicles
Overcrowding	high risk	low risk	low risk	high risk	high risk
Environment impact	high	high	minimal	high	temporary high
Holiday type	only sea	only sea	sea, monuments, city museum	sea and monuments	sea, monuments, ethnic museums
Beach by night	close	open	close	open	open
Choice probabilities					
Full sample	6.42%	31.77%	21.33%	17.79%	22.69%
Italians	6.43%	31.45%	20.30%	17.95%	23.87%
Foreigners	6.28%	32.68%	26.35%	16.18%	18.51%
Under 30	20.07%	15.41%	11.15%	23.69%	29.68%

In our exercise, we infer the probabilities that tourists choose one of these scenarios. In this particular simulation, it is interesting to note that, in accordance with the estimated choice probabilities, even though all the three samples share the same first choice ("only beach" alternative), the preference orderings for the whole sample and the Italian tourist sample (whose second best is the "intensive Rimini" scenario, probably because Italians want to live their holiday intensely, in a few days or in weekends) are identical, but differ from the young tourist (with a completely different preference ordering) and foreign tourist ones (whose second choice is the "environment friendly resort" scenario).

In such a context, offering an "only beach" package implies the best satisfaction of the main groups of tourists (Italian and foreigners) spending their summer holidays in Rimini. However, supplying a "intensive Rimini" tourist product implies favouring young and Italian tourists (being the first and second best alternatives, respectively) and specializing in the provision of services for Italians, youngs and tour operators.

In this simulation, it clearly emerges that the scenario corresponding to the tourist product currently offered (the "status quo" scenario) is far from effectively satisfying consumers, while corresponds to the second best alternative for the young people. This indicates that some investments are required to improve the local supply for targets different from the young tourist market.

5. Discussion and conclusions

This study provides a useful tool for the analysis of the existing tourist demand and suggests some interesting alternative priorities on which investing to increase tourism flows, even if not provides any practical solution to the local policy makers.

The main purpose of this paper was to illustrate how the discrete choice modelling can be used in tourism economics to elicit tourists' preferences, priorities and willingness to pay for a set of broad characteristics on which policy makers may like to intervene.

This approach differs from many other techniques aimed at studying tourism demand at the destination. It has the advantages of studying tourism demand in details, avoiding aggregate analysis, and obtaining specific results to be used for improving the local tourist supply. Moreover, it leads to the development of a tourist product based on tourists' elicited preferences rather than on the beliefs of the local policy makers, whose perception of tourists' needs could be biased.

This study was carried out on a sample of about 600 tourists interviewed during their summer holidays in Rimini. The main idea of this survey-based study was to gather information on tourist's needs and on the weight tourists attach to particular attributes that presently characterize, or that could characterize in the future, the local tourist product. In fact, being Rimini a mass tourist destination whose product is in the maturity phase, a widespread interest exists for detecting factors which make determine a relaunching of the destination.

The experiment which was carried out has pointed out important relationships among the attributes, tourists' behaviour and local tourist policies. In summertime, the sea holidays prevail over other types of vacations. Results make clear that Italian, foreign and young tourists, while caring about a few facets of tourist products, are fundamentally indifferent to other issues, such as the sustainability of the environment and, in particular, of the beach. First of all, tourists would appreciate the possibility to use the beach even during the evening and the night. Moreover, they seem to call for more space, and like the possibility to have complete access to the main tourist promenade (impeding vehicle traffic in this area). Recreational activities seem to be more relevant in affecting the destination choice than the sustainability of environment.

What clearly emerges is that the current supply of Rimini does not effectively satisfy its experienced demand, with the exception of young tourists who spend their stay not only during the day on the beach but also during the night. Therefore, new strategies should be valued.

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Appendix: The questionnaire

Section 1. *(for completion by the interviewer)*

0. Interviewer's code
1. Questionnaire code (progressive number)
2. Date of interview (dd/mm/yyyy)
3. Length of interview (minutes)
4. Place of interview

Section 2: Information on the tourist, the tourist location and the holiday

Personal profile of tourist

5. **Country of origin**
   1. Italian
   2. Foreign
6. *For Italian nationals: Region of origin*
7. *For foreign citizens : Country of origin*
8. **Year of birth of tourist**

8.b **Sex**
   1. M
   2. F

9. **Educational Qualifications (indicate the highest level attained)**
   1. No school leaving certificates
   2. Primary school education
   3. Lower secondary school
   4. Secondary or High school certificates
   5. Higher education Diploma
   6. Degree
   7. Post-graduate qualification

10. **Professional status**
   1. Entrepreneur
   2. Self-employed
   3. Skilled craftsman
   4. Manager
   5. Employee
   6. Degree
   7. Industrial worker
   8. Farmer
   9. Housewife
   10. Student
   11. Retired
   12. Unemployed
   13. Other (specify) _____

Details of holiday

11. **Did you use a tour operator or travel agent to organize your holiday?**
   1. Yes
   2. No

12. **Did you use the INTERNET to obtain information and make bookings for your holiday?**
   1. Yes
   2. No

12b. **What kind of means of transport did you use to arrive at this location?**
   1. Car
   2. Train
   3. Plane
   4. Other (specify if is possible)………………………

12c. **If you answered to 12b.3: Did you use a low-cost company to fly to Rimini?**
   1. Yes
   2. No

13. **Main location of your holiday**
14. **What motivated your choice of holiday location? (more than one answer possible)**
    1. Beach and sea holiday
    2. Mountain and/or countryside holiday
    3. Spa holiday
    4. Culture (Interest in History/archaeology)
    5. Participation in a conference or trade fair
    6. Business trip
    7. Religious pilgrimage
    8. School trip
    9. Visiting friends or relatives
    10. Other (specify is possible)………………………
15. **What kind of accommodation did you opt for?**
    1. 4 or 5 star hotel
    2. 3 star hotel
    3. 1 or 2 star hotel
    4. Holiday residence
    5. Camping or village resort
    6. Farmhouse tourism
    7. Bed & Breakfast
    8. Rented house
    9. Second home of your own property
    10. Friends or relatives
16. **If you answered in the fields 15.1-15.6: What kind of accommodation did you choose?**
    1. Overnight stays only
    2. Accommodation with breakfast
    3. Half board (bed, breakfast and one meal)
    4. Full board
17. **How much did you spend on average per day (board, food, transport, shopping and entertainment in Euro?**
    _____

Section 3. Preferences

INTRODUCTION

Several factors are involved in determining one's choice of and level of satisfaction with a holiday.
With your help, we would like to try and assess the various features and aspects that determine a choice of holiday.
I will present some hypothetical scenarios of a holiday in Rimini, and I will ask you to state the scenario which you most prefer.

Scenario:
Imagine you have decided to spend another holiday in Rimini. For the sake of simplicity, let's consider a case in which you have to choose between various alternatives for a week's holiday (six nights) in a good quality three star hotel. The holiday scenario we are considering is a mainly beach and sea-side vacation, with accommodation in the vicinity of a sea-side resort. This would not, of course exclude the possibility of doing excursions to inland areas.
However, the primary tourist attraction is the sea.
If possible, do not base your choices on the experience of accommodation in your current holiday (it may be particularly positive or negative)
Given the above described scenario, the various holiday options we would now ask you to choose from vary according to the following 6 main descriptions. For each description or feature of a holiday, there are two or more levels to consider.

DEFINITION OF FEATURES OF THE SCENARIOS

1. Risk of overcrowding in seaside location (and thus it is less easy to move around in the location):
- Scenario 1 (High risk): The seaside location, because overcrowding, does not guarantee neither easy access nor easy movement within the destination to use public services (for ex. cinema, theaters, discos etc….) or toward near destinations (on the coast or in the hinterland).
- Scenario 2 (Low risk): The seaside location guarantee either easy access and easy movement within the destination to use public services (for ex. cinema, theaters, discos etc….) or toward near destinations (on the coast or in the hinterland).

2. The main attraction of a seaside location is the zone close to the sea (the promenade). Rimini's promenade is as follows:
- **Scenario 1 (Promenade for pedestrians):** with huge free spaces for pedestrians and cyclists; parking spaces remain outside the tourist area and motor-vehicles are not allowed; infrastructure laid out for leisure and free-time.
- **Scenario 2 (Promenade open for vehicles):** few open spaces; cyclists use the sidewalk; parking-spaces are close to the sea and motor-vehicles are allowed to circulate.

3. An uncontaminated and untouched beach:
- **Scenario 1 (Minimal impact)**: The beach with no services and facilities, in which there are no nearby constructions.
- **Scenario 2 (Medium impact)**: The beach with essential services and facilities (lifeguard, first aid, information and gastronomic services, etc…) are available; constructions are made of cement.
- **Scenario 3 (Temporary high impact)**: The beach with temporary services and facilities; all constructions are made of wood and can be taken away during wintertime.
- **Scenario 4 (Permanent high impact)**: Numerous buildings in close proximity to beach; ample presence of services and facilities. All constructions are permanent.

4. Combination of a beach holiday and a cultural holiday (Rimini as a city of Arts and of Museums)
Sightseeing tours of the city's cultural highlights (Tempio Malatestiano, Arco d'Augusto, Ponte di Tiberio, Piazza Cavour, Rocca Malatestiana....) and of the museums of the historical centre (Museo della Città e Museo Diniz Rialto)
1. **Scenario 1 (Sea)**: Beach holiday only.
2. **Scenario 2 (Sea and monuments)**: Beach holiday with guided visit of the city's monuments.
3. **Scenario 3 (Sea, monuments and Museums 1)**: Beach holiday with guided visit of the city's monuments and entrance to the Museo della Città (guided tour in the evening).
4. **Scenario 4 (Sea, monuments and Museums 2)**: Beach holiday with guided visit of the city's monuments and entrance to the Museum Diniz Rialto (guided tour in the evening).

5.Opening continued/ Open-ended (evening and/or night) of seaside resort:
Scenario 1 (Closed beach): evening closing of seaside resort. The public beach is accessible with restrictions.
Scenario 2 (Open beach): evening opening of seaside resort to organize cultural events but there are not services facilitie.

6.Daily cost per person per night (full board accommodation in double room in a three star hotel) *The various possible holiday options to choose from are priced as follows (the room's price is in brackets):*

30(60) euros	40 (80) euros	50 (100) euros	60 (120) euros

We will now show you a series of different cases.
In each case, we ask you to choose between two alternatives, which differ according to the six scenarios described above.
In some cases, the choice may seem more difficult than in others; some cases suggested may seem a little unusual, but they are always likely or probable options.

It is important that when you choose, you only consider from the alternatives we give you, without considering the options presented previously (do not look back at previous choices made).
In making your choice, remember to bear in mind the what you realistically would spend on a family holiday, and how you usually make decisions concerning which holiday to choose for you and your family:

SHOW TOURIST THE DEMONSTRATION CARD WITH EXAMPLE QUESTION

Example card. Type 1 questionnaire. Demonstration card number 1 Supposing that only possible solutions are the following, what would you to opt between following alternatives?			
FEATURE OF HOLIDAY	**TYPE A HOLIDAY**	**TYPE B HOLIDAY**	
Risk of overcrowding in main point of attraction			
An uncontaminated and untouched natural environment as a primary attraction			
The quality of promenade			
Combination of a beach holiday and a cultural holiday			
Evening opening of Seaside resort			
Daily cost per person per night			

Type 1 questionnaire	**A**	**B**
18. Preference	1	2
19. Preference	1	2

20.	**Preference**	1	2
21.	**Preference**	1	2
22.	**Preference**	1	2
23.	**Preference**	1	2
24.	**Preference**	1	2
25.	**Preference**	1	2

Type 2 questionnaire

26.	**Preference**	1	2
27.	**Preference**	1	2
28.	**Preference**	1	2
29.	**Preference**	1	2
30.	**Preference**	1	2
31.	**Preference**	1	2
32.	**Preference**	1	2
33.	**Preference**	1	2

Type 3 questionnaire

34.	**Preference**	1	2
35.	**Preference**	1	2
36.	**Preference**	1	2
37.	**Preference**	1	2
38.	**Preference**	1	2
39.	**Preference**	1	2
40.	**Preference**	1	2
41.	**Preference**	1	2

Type 4 questionnaire

42.	**Preference**	1	2
43.	**Preference**	1	2
44.	**Preference**	1	2
45.	**Preference**	1	2
46.	**Preference**	1	2
47.	**Preference**	1	2
48.	**Preference**	1	2
49.	**Preference**	1	2

If you have had a beach holiday (answer 1 to question 14)

50. What was your main reason for choosing to holiday by the sea? (Tick one box only)
1. The only attraction of Rimini is the sea
2. I'm not interested in nature holidays or archaeological/historical sites
3. I wasn't aware that other types of holiday were available in Rimini
4. For other kinds of holiday, there are more interesting places than Rimini
5. Other (specify)_____
6. Don't know, answer not supplied

51. Given the holiday experience you have had on this visit, would you consider having another holiday in Rimini, not necessarily by the sea?
1. Yes
2. No
3. Don't know, answer not supplied

52. Which of the following conditions might influence your decision to have a different (not sea-side holiday) in Rimini?
1. Well organised facilities of natural park that are easily accessible
2. Adequate public transport system
3. Availability of organised holidays/tours to locations other than beach resorts
4. Lower prices
5. Adequate transport connections to the city
6. Possibility to holiday in periods other than the summer months
7. No condition
8. Other (specify) _____
9. Don't know, answer not supplied

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53. Why did you choose not to holiday by the sea?
    1.   Rimini interests me only for its nature, history and culture
    2.   I'm not interested in beach holidays
    3.   For beach holidays, there are more interesting locations than Rimini
    4.   Other (specify) _____
    99.   Don't know, answer not supplied

For all tourists:

54. Can you indicate the importance that each feature would have in determining your choice of holiday?

	1	2	3
1. **Risk of overcrowding in main point of attraction**	High	Medium	Low
2. **An uncontaminated and untouched natural environment as a primary attraction**	High	Medium	Low
3. **The quality of promenade**	High	Medium	Low
4. **Combination of a beach holiday and a cultural holiday**	High	Medium	Low
5. **Evening opening of Seaside resort**	High	Medium	Low
6. **Daily cost per person per night**	High	Medium	Low

55. Could you please indicate your net (or otherwise gross) average annual income; (indicate net or gross_____;

56. Are you a member of an environmental association or a history, archaeology etc. society?
    1.   Yes
    2.   No

For the interviewer only (do no task questions to respondent)

57. Has it been easy or difficult for the respondent select among the proposed alternatives?
    1.   Easy
    2.   Quite easy
    3.   Quite difficult
    4.   Difficult
    5.   Very difficult

58. Which is your opinion on respondent's level of interest?
    1.   Very interested
    2.   Interested
    3.   Quite interested
    4.   Not very interested
    5.   Uninterested

59. Which is your opinion on respondent's level of comprehension?
    1.   Very good
    2.   Good
    3.   Sufficient
    4.   Insufficient
    5.   Very bad

Interviewer's observations

Last question when the questionnaire is closed:

1. Could you point out anything that you would like in Rimini?	
2. Could you point out anything that you would not like in Rimini?	