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PRICE SENSITIVITY TO TOURISM ACTIVITES: LOOKING FOR DETERMINANT FACTORS

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ABSTRACT

Literature shows evidence that there is a marked heterogeneity in price responses to tourism products, leading to a great variety of tourist sensitivities to price. It means that the role price plays is complex and, particularly challenging is that its effect is not unambiguous, thereby dismissing the idea that demand for tourism products and tourist activities is always that of ordinary goods. The objective of this article is to identify and explain, as a novelty for the tourism industry, price sensitivities to tourism activities -individual by individual-. The operative formalization follows a Mixed Logit Model to estimate the individual sensitivities to price and then, a regression analysis to detect their determinants. The empirical application finds that motivations -influenced by age- and length of stay -with a non-linear effect- are explanatory factors of the tourists' price sensitivity to activities.

Keywords: Tourism activities; response to prices, market heterogeneity, tourist choice.

1. INTRODUCTION

The variable price is a central element in the tourist market, since it is a flexible tool that permits rapid changes (as a reaction to a rival's action) and a powerful competitive element (as individuals can make direct comparisons among different alternatives). Consequently, knowing the impact of prices on individuals' choices is central for tourism economics and management.

However, in a markedly heterogeneous market, like the tourist market, there exists an enormous diversity of sensitivities to price. If managers knew the individual by individual preference structure in terms of price sensitivities, they would be able to adapt each product to each person. Although the knowledge of this price preference structure would be valuable, the main limitation of analyzing this internal dimension is that it is not easy to measure in an individual basis, as it is not directly observable.

In virtue of the above, the objective of this study is to characterize, as a novelty in the tourism industry, the tourists' price sensitivities to tourism activities -individual by individual- by taking into consideration heterogeneity. For this purpose, this article proposes a Mixed Logit Model to find the heterogeneity between individual preferences and estimate the individual responses to price, and then a regression analysis to detect the factors that explain these heterogeneous responses.

The article has the following organization. The second section reviews the role of price in tourism and states hypotheses on the effects of the proposed explanatory variables. The third covers the design of the investigation; describing the methodology, sample and variables. The fourth section presents the results and their discussion. Finally, the fifth section summarizes the conclusions.

2. THE ROLE OF PRICE IN TOURISM

Classical economic theory provides guidelines as to the nature of the demand/price relationship, accepting that price and demand are inversely related. However, at this point is important to remember the now famous vexatiousness with which Crouch (1994) describes the role of prices in tourism. Certainly, the analysis of prices is one of the trickiest issues to deal with in tourism economics (e.g. remember not only the usual strategy of keeping prices low to be more attractive (Mangion et la., 2005), but the upward moves in prices to improve financial returns (Moriarty, 2010) as well as the market power and negotiating ability of intermediaries to influence on prices (Aguiló et al., 2003)); and one of the more arduous decisions in marketing (Cooper et al., 2008). In this regard, there is considerable evidence from both marketing and economics that price is a complex construct that is multidimensional in nature, specially on account of the duality in the effect of price: price can be an index of the amount of sacrifice the individual has to incur to consume the product, as well as the level of quality that the individual might expect (Dodds et al., 1991; Murphy and Pritchard, 1997). In fact, Dodds and Monroe (1985) show that this dual effect will affect people's predisposition to buy.

The consumer search for quality is particularly intense in tourism not only because of quality in its own right but also due to the uncertainty reduction expected from it. On account of perishability, inseparability, intangibility and heterogeneity inherent in tourism products, an individual may rely on prices to diminish uncertainty and make sure of what s/he will obtain. Remember that attributes of tourism products are difficult to grasp in advance, as their values are not observed before the service encounter (Espinet et al., 2003). Tourists value the services included in a package that differentiate it, but they do this evaluation by looking at prices (Aguiló et al., 2001). Certainly, prior

to the consumption, the individual forms expectations about the forthcoming experience using a number of intrinsic and extrinsic cues that give indication about the likely performance standards (Gould-Williams, 1999); in this context, price is a quality-extrinsic signaling element (Zeithaml, 1988). And all of this without considering the underlying hedonistic character often found in the consumption of tourism products through which high prices do not always act against demand (Morrison, 1996).

Therefore, in the context of tourism with a strong response heterogeneity and a great variety of sensitivities to price, the role price plays becomes specially complex and its effect is not unambiguous; dismissing the idea that, in all cases, demand for tourism products and tourist activities is that of *ordinary goods* in such a way that price increments diminish consumption; and no longer is price universally regarded as a factor that reduces the utility of a destination. Consequently, the different price effects and, therefore, these distinct sensitivities to price should implicitly have several factors that explain this heterogeneity.

In this analysis, we focus on an area of research that has not been widely studied previously, which is the identification and explanation of individual price sensitivities to tourism activities. In the next section, we present the relationships between several factors and these sensitivities.

2.1. Determinants of the individual response to prices of tourism activities

We propose several factors that can explain the individual price sensitivities to tourism activities and outline their effects (see the hyphenated box in Figure 1). We expect that the motivations that lead to the selection of a destination should have an effect on the predisposition to pay for the activities available at the destination; effect that can be influenced by age. Also, as the number of days the individuals spend at the destination determines their level of expenditures, the length of stay should have an

impact on price sensitivity to tourism activities. For each relationship, justification is provided as follows:

Figure 1 about here

Motivations. Tourist motivations lead to the choice of a destination (Lo and Lee, 2010), and this relationship between destination choice and motivations is relevant in order to identify the maximum price that tourists are prepared to pay. The theory of consumer behavior considers that motivations represent individual internal forces that lead to action (Schiffman and Kanuk, 2007), and in this respect, tourist motivations act as push factors leading to the realization of tourist travel (Sirakaya et al., 1996; Kim and Lee, 2002). As the selection of a certain holiday destination implies a desire for some kind of benefit -participation in a given activity, for example-, motivations are essentially the reasons why people take a holiday (Richards, 2002). This fact can have an influence on people's predisposition to pay to take part in an activity. According to Rugg's (1973) proposal, a stay in a destination over a period of time allows for the enjoyment of the attributes of the destination from which tourists obtain utility. As far as the set of activities offered by a destination can be considered an attribute that describes it, tourists can be prepared to pay extra to obtain utility from participating in specific activities. This latter statement occurs as long as those activities are in line with people's motivations, otherwise, the reverse would apply: motivations that are not in line with the activities would make people more reluctant to pay extra. Bearing in mind these considerations, we expect that motivations affect people's price sensitivity to activities, and the following hypothesis is stated:

H.1: *Motivations to go to a destination affects the individual's price sensitivity to activities.*

Although motivations have proven to have an effect on tourist decisions, their effect can be influenced by *age*. Age is a dimension that generates different points of view towards leisure and tourism consumption (Opaschowski, 1990); for example, young and middle age people consider holidays to be a part of their lifestyle and that extra holiday spending has to be saved for during the rest of the year. In fact, the study of the B.A.T. (1989) detects a tendency among young people to prioritize holiday expenditure, although once at the chosen destination half of these holidaymakers restrict their spending. It implies that the previously stated hypothesis about the effects of motivations on the individual's price sensitivity to activities can be different depending on people's age. In fact, this can explain the suggestion in the literature that the assumption of a linear relationship between age and vacation travel decisions seems excessively simplistic and unrepresentative of the real behavior of individuals (Walsh et al., 1992; Eymann & Ronning, 1992, 1997). That is, the same motivation can exert a different influence on a specific decision contingent upon people's age. Therefore, hypothesis 1 is qualified by hypothesis 2 as follows:

H.2: *The effect of motivations to go to a destination on the individual's price sensitivity to activities is influenced by the age of the tourists.*

Duration of stay. As the number of days that a tourist spends away is "holiday quantity" (Silberman, 1985), a positive relationship between the duration of stay and expenditure incurred during the holiday is found in the empirical literature; i.e. a greater number of days implies greater expenditure (Spotts & Mahoney, 1991; Taylor et al., 1993; Nogawa et al., 1996; Seaton & Palmer, 1997; Van Limburg, 1997; Leones et al., 1998; Mules, 1998; Agarwal & Yochum, 1999; Aguiló & Juaneda, 2000; Cannon & Ford, 2002). However, as more days lead to more expenses, it is expected that tourist will take extra care when it comes to choosing higher or lower priced activities. That is,

assuming two individuals with the same budget each, but one's length of stay doubles the other's (say, 10 days versus 5), when selecting an activity the first will pay greater attention to its price as his/her budget has to be spread through 10 days rather than 5. Consequently, we propose the following hypothesis:

H.3: *A longer length of stay leads to higher price sensitivity to activities.*

As before, a nuance has to be taken into account when analyzing the effect of the duration of stay on price sensitivity to activities. In particular, doubts can be cast upon a linear relationship in all the range of this continuous variable. Although longer stays are hypothesized to bring about higher price sensitivity to activities, there is no reason to assume a linear effect; quite the contrary, on account of the type of accommodation, tourists' sensitivities might change: it is not the same staying in a hotel, generally associated with shorter stays -where a large proportion of the tourist's budget goes to pay for the hotel- as staying in a secondary home, where not only can you stay longer with lower costs per person per night, but you have a lot more of discretionary money available (Agarwal and Yochum, 1999). Consequently, considering that we are dealing with a continuous variable, we propose the following hypothesis:

H.4: *The effect of the length of stay on price sensitivity to activities is non-linear.*

Finally, we also consider tourist's country of origin as a control variable to observe potential differences in their average price sensitivities to activities.

3. RESEARCH DESIGN

3.1. Sample, Data and Variables

The data used for the analysis refers to a stated choice experiment[1] conducted in Ticino region (Switzerland) during summer 2010 within a project aimed to investigate the preferences of tourists for different activities at the destination and the potential for a regional tourist card.

The design of the choice experiment is based on four attributes identified by applying a principal component analysis on the activities undertaken by tourists[2] - culture and nature, entertainment and sport, evening activities and water activities, respectively. The daily price has been added as a fifth attribute whereas the free access to public transport service (commonly included in tourist cards) has been made explicit in each hypothetical situation generated by the experimental design. For each attribute associated to activities at destination, three levels have been defined taking into consideration the factor loading of the activities undertaken by tourists. Concerning the price attribute, an explorative analysis on the tourist cards present in the real market have been carried out in order to define the attribute levels to be used in the experiment, 30, 45 and 60 CHF, respectively[3]. Table 1 describes the attributes and attributes levels considered in the stated choice experiment.

Table 1 about here

The stated choice experiment was conducted by face-to-face interviews where tourists were asked to perform two choices, first choosing among card A, card B or

[1] Also known as stated preference experiments, they refer to statistical experiments involving hypothetical choice situations and predefined (by researcher) attributes and attribute levels (see Louviere et al. 2000 for details).
[2] The entire survey involved two waves. Data collected from the first wave have been used in order to identify the four attributes (via principal component analysis) characterizing the stated choice experiment conducted in the second wave.
[3] Approximate exchange rate at December 2010, 1 CHF = 1.03 USD.

none of the two cards, and second choosing between card A or card B. Each respondent was presented with 12 choice situations[4] (see Figure 2 for an example of a choice card). The dataset analyzed in this study refers to the first choice dataset, among card A, card B and none option, respectively.

Figure 2 about here

Nine main locations in Ticino have been identified in order to conduct the survey with tourists taking into consideration both the most touristic places and the geographical dimension. The sample is comprised of 261 tourists resulting in 3132 valid choice observations.

Table 2 about here

The descriptive statistics for the main socio-demographic and socio-economic are reported in Table 2. Within the sample, 70 percent of the tourists are between 31 and 60 years old, whereas 10 percent are older than 61 years old and 5 percent are under 20 years old. In terms of tourist's nationality the most represented are Swiss citizenships, followed by Germans and Italians. This pattern reproduces correctly the market shares experienced in Ticino as for the three main countries driving the tourism demand. Regarding the length of the stay and the daily budget, the sample interviewed stayed on average 4.8 nights in Ticino and had an average daily budget for activities at destination of 65 CHF.

Along with the stated choice experiment, the tourists interviewed were also asked to state their agreement on a set of motivations that have been relevant in choosing Ticino as holiday destination. In particular, we focus the attention on seven statements that have been included in the survey and measured according to a four point Likert scale -

[4] The experimental design refers to an orthogonal design performed by Ngene (www.choice-metrics.com). The final design resulted in two blocks of twelve choice situations each.

not at all important (1), rather unimportant (2), rather important (3) and very important (4), respectively.

Table 3 about here

Table 3 illustrates the sample mean and median for the seven motivations considered in this study. According to the sample surveyed, "getting rest and relaxation" and "going to a sunny place" motivations are perceived very important in the decision process for selecting Ticino as holiday destination, as shown by the high value of the sample median. This result is in line with the image that tourists commonly associate to Ticino. Indeed, tourism in Ticino is mainly active during warm seasons, spring and summer, respectively. Two other motivations play an important role in the selection of the destination under study, namely "trying new food" and "visiting historical places", which registered a sample median of 3 (i.e., rather important). On the other side, three of the seven motivations, namely "experiencing a simpler lifestyle", "feeling safe and secure" and "feeling at home away from home" considered in this analysis register a lower influence in the selection of the destination.

3.2. Method

Within a Random Utility Model framework (McFadden 1974), the utility function, associated with respondent *n* for alternative *j* in choice situation *s*, is typically assumed to be linear in parameters, and represented by equation (1)

$$U_{njs} = \alpha_j + \sum_{k=1}^{K} \beta_{nk} x_{njsk} + \varepsilon_{njs} \qquad (1)$$

where, $\boldsymbol{\varepsilon}_{njs}$ is the random term that is Independent and Identically Distributed (IID) extreme value type 1.

In order to capture the heterogeneity between individual preferences we rely on the mixed logit class of models[5] which allow the estimation of both the mean and the standard deviation for the random coefficients according to a specific density function, typically a normal distribution as follows

$$\beta_{nk} = \beta_k + \sigma_k \nu_{nk} \tag{2}$$

where, β_k is the sample mean, ν_{nk} is the individual specific heterogeneity with mean zero and standard deviation one, and σ_k is the standard deviation of β_{nk} around β_k, which in our case follows a normal distribution.

Under these assumptions, the probability that respondent *n* chooses alternative *j* is described as follows:

$$P_n = \int \left(\prod_s \frac{\exp(\alpha_i + \sum_k \beta_{nk} x_{nisk})}{\sum_j \exp(\alpha_j + \sum_k \beta_{nk} x_{njsk})} \right) f(\beta) d(\beta) \tag{3}$$

where s = 1,…,S represents the choice situations. Since the integral does not have a closed form, the estimation of the utility parameters is derived from the maximization of the following simulated log likelihood:

$$L_n = \sum_n \ln \frac{1}{R} \sum_r \prod_s \frac{\exp(\alpha_i + \sum_k \beta_{nk} x_{nisk})}{\sum_j \exp(\alpha_j + \sum_k \beta_{nk} x_{njsk})} \tag{4}$$

where *r* = 1, …, *R* refers to the number of draws used for the identification of each random parameter. In this article, we refer to 500 Halton draws[6].

The individual specific estimates for the price coefficient are then computed by using the Bayes Identity

[5] See Hensher and Greene (2003) for a detailed discussion on mixed logit models.
[6] See Train (2009) for details about Halton draws.

$$g(\beta \mid y_n)Prob(y_n) = Prob(y_n \mid \beta)f(\beta) \tag{5}$$

where y_n indicates the alternative j chosen by respondent n. The Bayes Identity in (5) allows us to formulate the conditional density of β_n:

$$g(\beta_n \mid y_n) = \frac{L_n(y_n \mid \beta)f(\beta)}{P_n} \tag{6}$$

From the conditional density in (6) we can obtain the conditional expectation as follows:

$$E(\beta_n \mid y_n) = \int \beta g(\beta \mid y_n)d\beta = \int \frac{\beta Prob(y_n \mid \beta)g(\beta \mid y_n)d\beta}{P_n} \tag{7}$$

Given that the integral in the conditional mean for β_n does not exist in closed form, the individual specific estimates for the price coefficient are then simulated as:

$$E(\beta_n \mid y_n) = \frac{1}{R}\sum_r \beta_{nr}\omega_{nr} \qquad \text{where,} \quad \omega_{nr} = \frac{L_n}{\sum_r L_n} \tag{8}$$

In order to investigate the determinant factors for the heterogeneity in the price sensitivity a regression is then performed on the estimated individual coefficients associated to the price attribute in the stated choice experiment. Formally, the OLS regression takes the following specification:

$$\beta_n = \alpha + \sum_k \delta_k x_{nk} + u_n \tag{9}$$

where, α is the constant, δ_k the estimated parameter associated to individual specific variable x_k and u_n is the error term that is normally distributed with mean zero and standard deviation σ.

4. RESULTS

We firstly estimate the sated choice experiment using a Mixed Logit Model where the coefficient of interest -price sensitivity- is included and gauged. Table 4 shows the global results that represent the preferences of an average tourist. We find that price is significant at a level below 0.001, and presents a negative sign. This leads us to characterize it as dissuasive factor in the choice of activities. However, it is important to stress that the standard deviation parameter of the coefficient is significant, which implies that "price" has a differentiated effect among the individuals of the sample and thus, a given high price does not suppose the same reduction in utility for all the sample tourists. The differentiated effect found for "price" suggests that there is a great diversity of sensitivities in the tourist market.

Table 4 about here

Once the individual sensitivities to price are estimated, they are used as the dependent variable of a regression analysis so as to detect its explanatory factors and test the hypotheses stated (Table 5). Note that, even though the R-square is not as good as desirable, it is important to observe that the regression is globally significant (F=…; $p<0.001$; and most importantly, 16 coefficients are significant out of 20. This means that, the proposed variables are clearly determinant factors of this internal aspects of the individual and that further research is needed to find more elements that explain price sensitivity in the context of tourism activities; thereby, opening up new threads of research. Turning to the specific results, we find the following:

Table 5 about here

As for motivations, we obtain significant parameter for the seven motivations, supporting hypothesis 1 that motivations to go to a destination reduce the individual's price sensitivity to activities. In particular, positive parameters are found for "trying new food" ($p<0.025$), "feeling safe and secure" ($p<0.037$) and "getting rest and relaxation" ($p<0.024$), meaning that people with these motivations when selecting a destination are less affected by higher prices when choosing activities. On the other hand, we find negative parameters for "visiting historical places" ($p<0.075$), "experiencing a simpler lifestyle" ($p<0.082$), "feeling at home away from home" ($p<0.064$) and "going to a sunny place" ($p<0.088$). One can assume that most tourists are not prepared to pay extra to do activities that allow them to experience a simpler lifestyle, feel at home away from home or going to a sunny place merely for the sun: people with these motivations should get their sought benefits without incurring greater costs. However, it is surprising to see that people with the motivation "visiting historical places" become more sensitive to prices, which in principle is against expected. Nevertheless, this result is still reasonable as the culture activities proposed in the cards were free in all cases, which means that, when culture-motivated people select the activities, once they make sure that they will obtain what they expect to get at the destination (visiting historical places), they do not care much about the rest of non-cultural activities and will go for the cheaper option.

Regarding interactions, five out of seven interactions are significant: as people get older, the positive effects of "trying new food" ($p<0.068$), "feeling safe and secure" ($p<0.035$) and "getting rest and relaxation" ($p<0.004$) on price sensitivity to activities are reduced; and the negative effects of "visiting historical places" ($p<0.006$) and "experiencing a simpler lifestyle" ($p<0.061$) diminish too. These significant interactions

confirm hypothesis 2 that the effect of motivations to go to a destination on the individual's price sensitivity to activities is influenced by the age of the tourists.

Concerning the duration of stay we find a negative parameter for the variable "number of nights" ($p<0.032$) and a positive parameter for its squared ($p<0.088$). These results supports hypothesis 3 that longer lengths of stay lead to higher price sensitivity to activities as the budget has to be divided up into more days, and hypothesis 4 that the effect of the length of stay on price sensitivity to activities is non-linear. In particular, "the longer stays, the higher sensitivity" statement holds up to a point (specifically, up to day five); after that point, for stays of six days or longer, people become less sensitive to prices. As longer durations are enjoyed mostly by people with secondary home on account of the lower costs per person per night, the idea that they have more discretionary money at their disposal can aptly apply, in line with Agarwal and Yochum (1999).

As for the control variable "tourist's country of origin", we observe differences in sensitivities; in particular, we find that Italians are more reluctant to pay extra money ($p<0.033$) than any other nationality in the sample.

5. CONCLUSIONS

Prices in tourism are especially complex and their effects are not unambiguous, characterized by a strong response heterogeneity leading to a great variety of sensitivities to prices. It implies that, rather than regarding prices as dissuasive elements that diminish utility, they sometimes can have positive -or in more purist way, less negative- effects.

In this vein, the objective of this study is to analyze, for the first time, the tourists' price sensitivities to tourism activities -individual by individual- by taking into consideration heterogeneity. To do this, this article uses a Mixed Logit Model to find

the heterogeneity between individual preferences and estimate the individual responses to price, and then a regression analysis to identify the factors that explain these heterogeneous responses.

The results of the empirical application show that demand for tourist activities is that of *ordinary goods* in such a way that price increments diminish consumption; however, "price" has a differentiated effect among the individuals and thus, a particular high price does not have the same reduction in utility for all the tourists. Concretely, we find that motivations exert an effect on price sensitivity to activities, some diminishing and others increasing it. At this point, it is important to stress that the effect of motivations is influenced by the tourist's age, in such a way that the same motivation might impact differently on the individual price sensitivity depending on age. Concerning the length of stay, we find that longer stays lead to higher price sensitivity to activities (because of people's limited budget) but there is a threshold in day five; as of day six people becomes less sensitive (as these longer durations are mainly associated with people with secondary home and therefore with more discretionary money).

As implications for management, a first aspect to remark is that knowledge of the determinant factors of price sensitivities to activities allows destinations and travel organizations to better design their price policies and strategies, by taking into account the characteristics of the selected target group that would lead them to accept a price to a greater or lesser extent. Given the confirmation of the existence of diversity of price sensitivities, a critical implication is that, knowing the tourist by tourist preference structure in terms of price sensitivities allows more tailored pricing strategies. It is important to remember that the analysis of "price preferences" requires looking into an internal dimension which is not directly observable.

Further avenues of research remain: first, more explanatory factor of this internal aspect of the individual -price sensitivity to tourism activities- is needed; and second, a posteriori analysis could help find segments according to price sensitivities to activities, which would definitely allow organizations to detect their target groups.

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TABLES

Table 1. Attributes and their levels

Attribute	Attributes levels
Culture and nature	Free usage of cable cars Free entrance to museums Free entrance to botanical gardens
Entertainment and sport	Free entrance to entertainment parks 20% discount on wellness facilities 20% discount on sports and renting sport equipment
Evening activities	20% discount on events and festivals 20% discount in restaurants 20% discount in bars/clubs
Water activities	Free boat trips on the lake Free entrance to Lido 20% discount on renting a boat
Price	30 CHF/day 45 CHF/day 60 CHF/day

Table 2. Sample descriptive statistics

Variable	Sample
Gender	Females (60%); Males (40%)
Age	Under 20 (5%); From 21 to 30 (16%); From 31 to 40 (20%); From 41 to 50 (25%); From 51 to 60 (24%); From 61 to 70(9%); Older than 71 (1 %)
Country	Switzerland (45%); German (17%); Italy (16%) Other nationalities (22%)
Average overnight stay	4.8 nigths
Average daily budget	65 CHF

Table 3. Sample descriptive for motivations

Motivation	Mean	Median
Trying new food	2.6	3
Visiting historical places	2.8	3
Experiencing a simpler lifestyle	2.2	2
Feeling safe and secure	2.4	2
Feeling at home away from home	2.3	2
Going to a sunny place	3.4	4
Getting rest and relaxation	3.5	4

Table 4. Stated choice model of tourism activities

	Coefficient	*t*-ratio
Means for Random and Non-Random parameters		
ASC Alt A	2.5405	15.03[a]
ASC Alt B	2.4058	14.23[a]
Price	-0.0398	-9.58[a]
Cable car	-0.0742	-1.45
Museum	0.2183	3.41[a]
Entertainment park	-0.0714	-1.42
20 % discount on sport and renting s. eq.	-0.0309	-0.56
20 % discount on restaurants and bars	-0.2456	-2.70[a]
Free boat trips on the lake	0.3516	6.77[a]
20 % discount on renting a boat	-0.2484	-3.76[a]
Standard deviations for Random parameters		
Ns Price	0.0410	14.73[a]
Ns Cable car	0.1434	1.01
Ns Museum	0.4724	7.90[a]
Ns Entertainment park	0.0057	0.03
Ns 20 % discount on sport and renting s. eq.	0.2059	2.22[b]
Ns 20 % discount on restaurants and bars	0.6380	5.83[a]
Ns Free boat trips on the lake	0.3991	6.86[a]
Ns 20 % discount on renting a boat	0.1462	1.15
Sample	3132	
Halton draws	500	
Restricted LL	-3439.76	
Final Log-likelihood	-2961.66	
k	18	
AIC	1.9033	
McFadden pseudo ρ^2	0.1390	

a=prob<1%; b=prob<5%; c=prob<10%.

Table 5. Determinant factors of price sensitivity to activities

	Coefficient	t-ratio
Trying new food	0.0164	2.248[b]
Visiting historical places	-0.0116	-1.778[c]
Experiencing a simpler lifestyle	-0.0136	-1.740[c]
Feeling safe and secure	0.0145	2.087[b]
Feeling at home away from home	-0.0125	-1.852[c]
Going to a sunny place	-0.0134	-1.706[c]
Getting rest and relaxation	0.0202	2.264[b]
Age x Trying new food	-0.0032	-1.826[c]
Age x Visiting historical places	0.0043	2.725[a]
Age x Experiencing a simpler lifestyle	0.0035	1.872[c]
Age x Feeling safe and secure	-0.0036	-2.107[b]
Age x Feeling at home away from home	0.0027	1.579
Age x Going to a sunny place	0.0028	1.470
Age x Getting rest and relaxation	-0.0059	-2.875[a]
Stay	-0.0019	-2.145[b]
$Stay^2$	0.0003	1.707[c]
Italy	-0.0161	-2.138_b
Germany	-0.0064	-0.866
Switzerland	0.0043	0.728
Constant	-0.0356	-2.277
Sample	259	
R-squared	0.155	
Adjusted R-squared	0.088	
Restricted LL	494.14	
Final Log-likelihood	516.03	

a=prob<1%; b=prob<5%; c=prob<10%.

FIGURES

Figure 1. Determinants of individual sensitivities to price of tourism activities

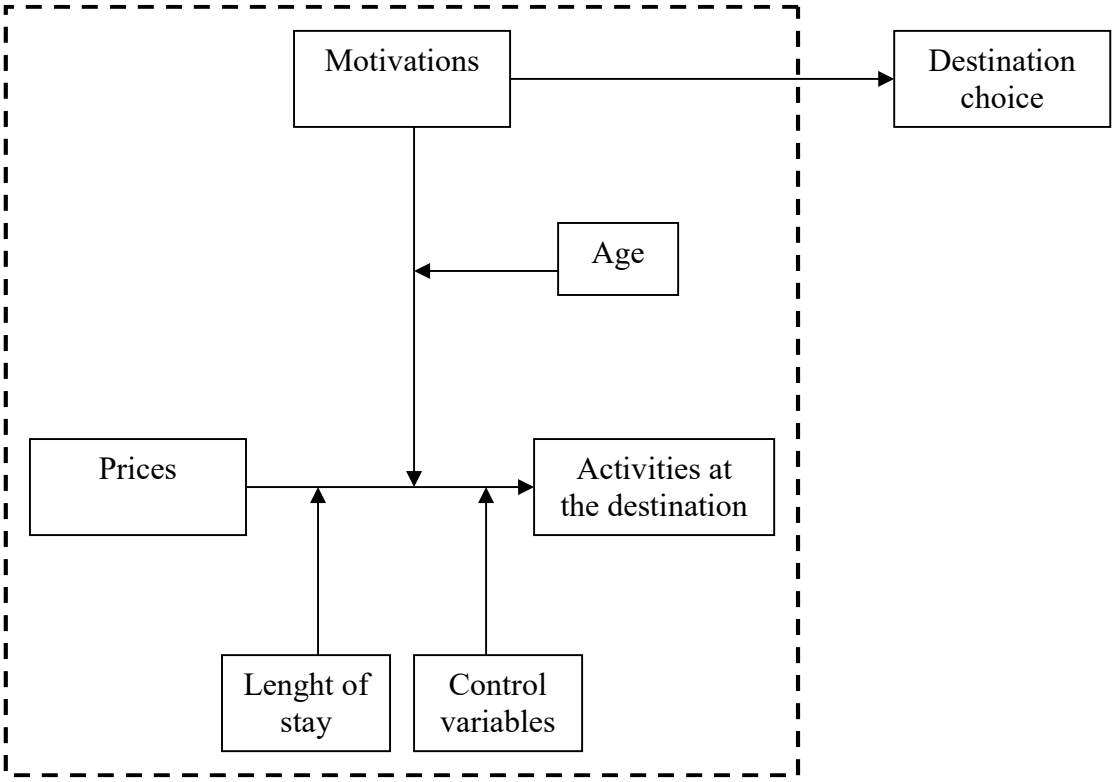

Figure 2. Example of a choice card

	Card A	Card B	None
Public transport	Free public transport in Ticino	Free public transport in Ticino	
Culture and nature	Free entrance to museums	Free entrance to botanical parks	
Entertainment and sport	20% discount on wellness facilities	20% discount on sports and renting sport equipment	
Evening activities	20% discount in restaurants	20% discount in bars/clubs	
Water activities	Free entrance to lido	Free boat trips on the lakes	
Price	45 CHF	30 CHF	
Which card would you buy?	☐	☐	☐
If you could only chose between A and B, which one would you prefer?	☐	☐	