

**IF YOU, TOURIST, BEHAVE IRRATIONALLY, I'LL FIND YOU!**

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## **IF YOU, TOURIST, BEHAVE IRRATIONALLY, I'LL FIND YOU!**

### **Abstract**

When departures from rational behavior can potentially be expected, modeling should allow for their identification and their quantification. In this regard, prices in tourism might have effects that may not be as apparent as economic theory predicts. This article incorporates the sticker shock formulation into the mixed logit model without imposing consistency with consumer theory to accommodate any possible positive or negative price effects. By allowing the parameters of “price” and “sticker shock term” to take any value – negative or positive – we detect abnormal behaviors in the tourist demand: not only is the negative relationship between price and demand inverted for some people but also some tourists might be willing to accept higher-than-expected prices. The “non-well-behaved” groups’ shares are estimated.

**Keywords:** utility theory; irrational behavior; reference prices; sticker shock model; choice model.

## 1. INTRODUCTION

Irrational behavior is found in the pricing literature in general (Shampanier, Mazar, & Ariely, 2007) as well as in the tourism context (Nicolau, 2012; Nicolau & Sellers, 2012). In an attempt to delve into behavioral anomalies, this paper is based on three fundamental aspects of human behavior: risk aversion, pleasure seeking, and reference dependence. Regarding risk aversion, it is important to emphasize that uncertainty is inherently contained in tourism consumption, as the individuals are taken where the product is located (i.e. the destination) and therefore become much more involved than in other industries. Concerning pleasure seeking, tourists might look for quality, either for tangible (for example, assurance that the service performance is high) or for intangible reasons (such as social esteem). As for reference dependence, it is a property that focuses on the way in which people assess outcomes with reference points. Thus, this study makes a linkage of these three elements in the context of tourism prices by arguing that risk aversion and pleasure seeking modify the expectations of the reference-dependence phenomenon.

Considering the inherent uncertainty that tourism consumption entails, people tend to look for cues that provide indications about a product's or service's quality and therefore use them to form expectations about the future experience (Gould-Williams, 1999). Accordingly, tourism prices play a critical role because of the implicit message that they convey in terms of quality and as an "uncertainty reducer." This circumstance, however, might lead to situations that are counterintuitive.

While the neoclassical theory of preferences posits an inverse price–demand relationship, using a correct price measurement and appropriate modeling is not always straightforward (Crouch, 1994; Meissner & Strauss, 2012a, 2012b; Oses, Gerrikagoitia, & Alzua, 2016; Seetaram, Forsyth, & Dwyer, 2016). Certainly, its effects are not always apparent: tourists can invert the relationship between price and demand because of quality–price

associations. Furthermore, how can an analyst model a demand situation in which some people behave consistently with neoclassical theory and others do not (i.e. the price does not negatively affect the demand)? Identifying the market share of people in one group or another is a tricky task. As if all this were not enough, people tend to use individual reference points to determine how high or how low a price is (Cai & Cude, 2011; Gilbride, Gultinan, & Urbany, 2008; Malasevska & Haugom, 2018) meaning that individuals' decisions may be based not only on finding high or low prices but also on coming across amounts that are above or below their expected rate. Figure 1 shows the way different effects of prices on consumption that might bring about the -expected and unexpected- behaviors analyzed in this manuscript.

**[Please, insert Figure 1 about here]**

In this context, the analyst needs to approach the modeling task from a flexible perspective, in such a way that, rather than imposing constraints that are in accordance with consumer theory, the model should accommodate any possible relationships between variables. Therefore, when it comes to the price variable, the model should be able to capture both negative and positive effects as well as the fraction of the population undergoing each different-sign effect. In this sense, Nunes, Cunha-e-Sa, Ducla-Soares, Rosado, and Day (2001) indicate that, in choice models, the price coefficient should not be restricted to negative values. Taking a step further, our article estimates a sticker shock model (Winer, 1986) in which both the price parameter and the sticker shock coefficient can take any value – negative or positive – with the ability to detect those individuals in the sample who are well behaved in terms of consumer demand theory and those who are not. As the purpose of this article is to detect anomalies in tourist behavior (such as paying a higher-than-expected price), the simplicity of the sticker shock model allows us to focus on the intricacies of the variable price and analyze the

consequences of each of the three aforementioned dimensions of human behavior (risk aversion, pleasure seeking, and reference dependence) simultaneously in the same model.

## **2. NON-CONSISTENT TOURIST BEHAVIORS TOWARDS PRICE**

Before the service encounter, tourists form expectations about the characteristics of their future experience in a destination using different internal and external cues that reflect the levels of service that they will receive (Gould-Williams, 1999). Inseparability, intangibility, and heterogeneity make the information collected before booking particularly meaningful in tourism. The uncertainty that exists in tourism consumption implies information asymmetries that need to be reduced, and the strategies implemented to this end should help to distinguish high- and low-quality services; these strategies used as quality assurance mechanisms might include warranties, reputation, or quality certifications (Dewally & Ederington, 2002).

However, let us suppose that a tourist is dealing with, say, three different choice alternatives, all of them claiming to have a good reputation, all recommended by distinct travel agents, or, which in turn can be particularly confusing, all showing several quality certificates granted by different third-party entities. In this case, the tourist does not know whom to trust the most. An example that reflects the complicated task of distinguishing the quality of different alternatives would be the situation of a group of tourists who are planning to take a cruise along the Nile, and all the ships are marked as having five stars: which one will they choose? Evidently, price will be a determinant factor in their final decision. Therefore, whether the information is only a little *informative* (e.g. when all the choice alternatives claim to be high quality) or whether there is information overload (e.g. companies might have several quality certificates but customers do not know which one is best), the price appears to be a relevant decision criterion. Consequently, as the literature has well established, prices might be considered to be an indication of quality.

Note that, while Boyle and Lathrop (2009) find that consumers have a modest positive price–quality relationship and Caves and Greene (1996) conclude that “convenience goods” show a lower price–quality correlation, in tourism, a positive relationship between price and quality is observed by Decrop (2006). It is no wonder that this relationship exists in tourism consumption: in line with Jones and Hudson (1996), consumers use more signals as product prices rise, and it is rational for them, in this context, to include the price in the set of signals used to assess the expected quality. Therefore, as prices might be a signal of quality, a critical element that can form people’s attitudes towards prices is the uncertainty that they feel a purchase decision entails: they might show a greater predisposition to pay a higher price to reduce the risk involved and make sure that they receive the level of service that they expect. In this regard, and according to Assael (1984) and Diaz and Maria (2013), people’s involvement and interest in a product condition their perceived value and determine how they incorporate the information that prices convey. Considering that, in tourism consumption, individuals are actively involved (i.e. they are moved to the place where the product is), this behavior strongly applies. After the information has been collected, people will assign a meaning to each price through an encoding process (Lichtenstein, Bloch, & Black, 1988).

In this context, value for money turns out to be a central measurement of competitiveness (Stevens, 1992), which helps to increase the likelihood of repurchase (He & Song, 2009). Dodds and Monroe (1985) indicate that the predisposition to buy is affected by the dual effect of prices: high prices lead to greater monetary sacrifices and thus diminish the predisposition to accept them; at the same time, however, these high prices lead to higher perceived quality and, in turn, enhance the willingness to purchase. Therefore, this literature suggests that high prices may not reduce the demand on account of price–quality associations, apart from the possibility that the hedonistic element that sometimes appears in tourism consumption might lead some people to opt for the expensive alternative (Morrison, 1996).

Note that Dodds, Monroe, and Grewal (1991) and Grewal, Monroe, and Krishnan (1998) suggest that reference prices determine the value of the purchase, as preferences tend to be reference-dependent. Accordingly, information acquired in the past leads some people to regard the price to visit a destination as expensive and others to consider it to be inexpensive.

Different psychological evaluations of price are derived from this process of fitting it into consumers' set of beliefs, in which the reference price is a central construct in these psychological evaluations (Kim & Crompton, 2002). The reference price is a benchmark, and, more importantly, people form their willingness to pay based on this expected price (Kalyanaram & Winer, 1995). Accordingly, when they compare their *reference price* with the *observed price* and find a discrepancy, it should have an effect on their choices: positive differences should increase the likelihood of choosing a product (the product has a price that is lower than the individual thought it would be (*gains*)); and negative differences should reduce such a likelihood (the product has a higher-than-expected price (*losses*)).

However, Alegre and Juaneda (2006) indicate that those individuals who base their choices on perceived quality tend to accept higher prices to make sure of the quality of the product. It is important to remember that consumers view price as a proxy for product quality (Rao, 2005), particularly when there is a lack of information about the product and of confidence in their ability to make the right decision (Schiffman & Kanuk, 2004). This is further intensified by information asymmetries between consumers and service providers that frequently arise in tourism due to the temporal and geographical distances that increase the uncertainty of the consumption (Park & Nicolau, 2015). In this sense, travelers look for signals when making a judgment that requires the balancing of uncertainties, in which price might take central stage because of the price–quality association (Dodds, Avila, & Wahlers, 1993); this might ultimately affect the perceived value and behavioral intentions (Lichtenstein, Ridgway, & Netemeyer, 1993). Consequently, consumers in the tourism industry do not necessarily opt

for cheap products/services; rather, they might be more prepared to pay higher rates to find a product/service with their desired level of quality.

This consumer behavior can be associated with the notion of conspicuous consumption (Bagwell & Bernheim, 1996). Recognizing that tourism is a high-involvement product, there could be travelers who would pay a premium price for a service just to exhibit their wealth (Kim & Jang, 2013), as a premium price implies exclusivity and distinctiveness. That is, paying a higher price may enable some people to meet their social need for esteem (Amaldoss & Jain, 2005). Thus, it can be said that a higher price might lead to expectations of higher quality and prestige sensitivity (conveying prestige to others) and thus enhance the intention to buy (Zeithaml, Berry, & Parasuraman, 1996).

Shiv, Carmon, and Ariely (2005) empirically demonstrate the positive effects of price not only on the perceived benefits derived from product consumption but also on the performance of the products advertised. Even if the qualities of the products are indistinguishable, consumers predict inferior quality from a lower-priced product and, as a result, produce a lower performance, giving rise to a placebo effect. Accordingly, some signaling (e.g. discount prices) could drive a reduction of the utility associated with specific consumption (Berns, 2005). A placebo effect has been described in a medical domain – the patient's beliefs and expectations of a medical product can create genuine health benefits, even though the drug is in fact inactive (Stewart-Williams & Podd, 2004). In other words, a placebo effect may appear with elements of a product that are not physical characteristics (e.g. its price) in a way that unconsciously triggers an expectation that an influence will exist, which ultimately will have an impact on the effectiveness (i.e. perceived quality) of the product/service (Irmak, Block, & Fitzsimons, 2005). Although the price paid may be entirely unrelated to the product's real quality, people's unconscious beliefs regarding the price–quality relationship can lead them to believe that they will obtain an outcome similar to that of an item



with a quality that is appropriate for the price paid. This implies that individuals may obtain *happiness* from buying products with observed prices that are higher than their reference prices, which, albeit a departure from rational economic behavior, is a way of making sure that they will receive high quality. Therefore, we might also find people who are willing to buy at a higher-than-expected price.

In conclusion, this section has reviewed two possible non-consistent behaviors in tourists' price reactions that analysts have to accommodate in their models: i) opting for the expensive alternative; and ii) paying a higher-than-expected price. A priori, it is not easy to differentiate the positive and the negative coefficients associated with "price" and "the discrepancies between the reference price and the actual price," especially considering that the two effects can coexist in the same market; however, with the use of choice models with random coefficients, we are able to test whether these abnormal behaviors exist and, if so, to estimate the proportion of people who follow each of these behavioral patterns.

### 3. RESEARCH DESIGN

#### 3.1. The Sticker Shock Formulation

To analyze how individuals make use of prices and reference prices in their tourist product choices, this article employs the sticker shock model proposed by Winer (1986), in which choice alternatives are assessed by considering the discrepancies between actual and reference prices. Note that, as the purpose of this article is to detect anomalies in tourist behavior, the model proposed is not intended to introduce a comprehensive list of demand variables; rather, we try to keep the model as simple as possible but still look into some intriguing variables that might shed light on some intricacies of tourists' reaction to prices. Thus, for tourist  $n$  and occasion  $t$ , the utility of alternative  $i$  is

$$U_{int} = \alpha_i + \beta_{1n} PRICE_{int} + \beta_{2n} (RP_{int} - PRICE_{int}) + \varepsilon_{int}$$

$PRICE_{int}$ : the current price of product  $i$ ;

$(RP_{int} - PRICE_{int})$ : a sticker shock term that reflects the price and reference price deviations;

$\beta_n$ : the set of coefficients of each individual  $n$ ;

$\varepsilon_{int}$ : an extreme-value random term.

We turn to the mixed logit model (MLM) because it allows us to consider explicitly the potential heterogeneity in price responses (Klapper, Ebling, & Temme, 2005) and avoids any spurious effect of the sticker shock term, as found by Chang, Siddarth, and Weinberg (1999). Assuming a number  $J$  of alternatives, individual  $n$ 's probability  $P_{nt}(i)$  of selecting choice alternative  $i$  in purchase incidence  $t$  is obtained by integrating the expression  $P_{nt}(i/\theta)$  by considering all the values of the parameters  $\theta$  that vary with density  $f(\theta)$ , which follows a normal ( distribution with mean  $b$  and variance  $W$  (Train, 2009).

$$P_{nt}(i) = \int_{\theta} \frac{\exp\{U_{int}\}}{\sum_{j=1}^J \exp\{U_{jnt}\}} \phi(\theta | b, W) d\theta$$

### 3.2. Sample, Data, and Variables

The survey "Spanish Holidaying Behavior (III)" is used, as it shows how people (older than 18) behave when making tourism choices at the national level in the context of destination types (coastal vs inland). A multistage conglomeration-stratified sample is employed, conducted by the CIS (*Centro de Investigaciones Sociológicas*). We select those people who provide information about their tourist consumption at least twice over a year. The resulting sample contains 410 respondents.

1) *Dependent variable*. A variable with three categories is employed for the destination types: "coastal," "inland," and "not going on holiday" (which is the reference alternative).

2) *Independent variables.* a) *Prices.* When it comes to the measurement of prices, an important question arises in the context of this study: what happens if the analysis is focused on *types of destinations* rather than *destinations*? If this is the case, working with *types of destinations* means dealing with different destinations – within a specific type – which are located in different areas that, of course, have distinct prices. Consequently, the analyst has to generate some kind of index to reflect the *prices* of these destination types. On this line, as the alternatives in this article are “types of destinations,” we resort to Eymann and Ronning’s (1997) “specific cost index,” which is estimated for each destination type and individual.

The procedure is developed in two steps (Eymann & Ronning, 1997). The first step is the estimation of an expenditure model, such as  $E_{int} = \delta_{i1} + \delta_{i2} X_{int}^{(1)} + \delta_{i3} X_{nt}^{(2)} + \varepsilon_{int}$ , where  $\varepsilon_{int}$  is the error term,  $E_{int}$  the variable “expenditures” for each person  $n$  in every type of destination  $i$  in occurrence  $t$ ,  $X_{int}^{(1)}$  the “intensity of use of the destination type  $i$ ” approached by the length of stay (days), and  $X_{nt}^{(2)}$  the characteristics of the decision maker, such as income, education, marital status, and household size. The second step consists of the construction of the specific cost indices. Once parameters  $\delta_{i1}$ ,  $\delta_{i2}$ , and  $\delta_{i3}$  have been estimated, the specific cost indices – sometimes called *quasi-hedonic prices*  $QHP_{int}$  – are obtained by employing the expression  $QHP_{int} = \hat{\delta}_{i1} + \hat{\delta}_{i2} \bar{X}_{it}^{(1)} + \hat{\delta}_{i3} X_{nt}^{(2)}$ , where  $\bar{X}_{it}^{(1)}$  stands for the mean of  $X_{it}^{(1)}$ .

b) *Reference prices.* According to Chang et al. (1999), the reference prices used in the sticker shock model are based on the price on the last purchase occasion; that is, the reference prices are product-type-specific. We measure the reference prices of coastal and inland destinations with the same procedure as outlined earlier. Evidently, when it comes to the destination actually visited, as the information is directly available, the amount paid is employed. By using this procedure, the price  $QHP_{int}$  for each type of destination type  $i$ , each tourist  $n$ , and every purchase occurrence  $t$  is obtained. Thus, the reference price is expressed as

$RP_{it} = QHP_{it-1}$ , which is the price that a tourist observed for destination  $i$  (regardless of whether that destination was chosen) on occasion  $t-1$ .

Table 1 shows the descriptive statistics for all the variables used in the sticker shock model and for the building of the specific cost index. The number of people in each household is 3.27 on average. Over half (58.8%) of the respondents are married. The distribution of education levels seems to be even at around 33%. In terms of income, the majority of the respondents earn between €600 and €2399. Importantly, the key dimensions of the sample remain similar to the original sample: in the latter, 94.2% of people select a domestic destination, 61.9% of people taking vacations choose a coastal destination, and 38.1% choose an inland destination; in our sample, these proportions are 100%, 59.2%, and 40.8%, respectively. Their average prices of coastal and inland destinations are €645.93 and €615.36. The average length of trip is 18.3 days with a standard deviation of 14.06.

Concerning the sticker shock term, its mean and standard deviation are -33.66 and 7.77, respectively, and its quartiles are  $Q_1 = -140$ ,  $Q_2 = -44.5$ , and  $Q_3 = 50$ . For coastal destinations, we find that the mean of the sticker shock term is 37.60 and its standard deviation is 11.61, with quartiles  $Q_1 = -64.25$ ,  $Q_2 = 20$ , and  $Q_3 = 117.50$ . For inland destinations, the mean is -104.92 and the standard deviation is 9.06, with  $Q_1 = -173$ ,  $Q_2 = -111$ , and  $Q_3 = 0$ .

**[Please insert Table 1 about here]**

#### **4. RESULTS AND DISCUSSION**

The inclusion of the Sticker Shock model implies the estimation of an MLM, which is shown in Table 2. The results find that the variable price is significant with a negative sign, so prices have a negative effect on destination choice. Therefore, this result is in line with the research line that regards tourism services as ordinary goods with an inverse relationship

between price and demand. At this point, however, it is crucial to highlight the statistical significance of the standard deviation of the price coefficient, which, in this model, means that its impact is not the same for all individuals. It implies that in a market as heterogeneous as the tourist context, with such a great disparity of sensitivities to price, the intricacies of the effects of prices might be complex. Some tourists consider high prices as an attraction factor on account of the higher quality and lower uncertainty associated with them (Dodds et al., 1991). In particular, we find that about 20 percent of the tourists who take vacations ( $\phi(0.013/0.015)=19.3\%$ ) do not opt for the most economical alternatives.

**[Please insert Table 2 about here]**

Regarding the sticker shock term, that is, the discrepancy between reference prices and prices, the result finds that the mean parameter is not significant, but its standard deviation is significant at 1% level. Note, however, that in a MLM, the distribution of values for  $\beta$  is estimated. Therefore, if the standard deviation is significant, then the distribution of values for  $\beta$  spreads on both sides of the mean parameter, be it zero or not. It simply means that preferences exist on both sides of zero<sup>1</sup> along the distribution function.

In this particular case, the results obtained imply that for about half (56%) of tourists of the sample [ $\phi(0.003/0.020)=0.56$ ], the sticker shock term has a positive effect -as would be expected- but for the other half (44%) [ $1-\phi(0.003/0.020)=0.44$ ] this term has a negative influence -which is against the logic of reference prices-. That is, significant standard deviations mean that some people react positively to discrepancies between *reference price* and *observed price* -as one would expect by assuming rational behavior in the consumer decision process-, and that some other people react negatively to such discrepancies; this latter

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<sup>1</sup> In fact, models estimated without considering heterogeneity provide poorer fits: model with *fixed* price and sticker shock parameters, model with *random* price parameter and *fixed* sticker shock parameter and model with *fixed* price parameter and *random* sticker shock parameter have all lower log-likelihood functions.

result is against consumer rationality because it indicates that finding a higher-than-expected price represents “good news” and lower than expected represents “bad news”.

On the one hand, this counterintuitive “good news” (some people get happiness from paying more than expected) can be due to the fact that individuals may opt for a higher-than-expected price just because they assume a certain level of quality associated with that price. This result is in line with Alegre and Juaneda (2006) comments that perceived quality might lead to accept higher prices so that people make sure of the quality they will be obtaining. On the other hand, the also counterintuitive “bad news” (some people get disappointment from finding prices lower than expected) may lead individuals to perceive a lower quality, even if the actual quality is the same as the one associated with the expected prices. As the individual cannot physically inspect in advance what they buy, this context entails a high degree of involvement and uncertainty. Therefore, the information that prices convey about quality takes over and high prices can help reduce uncertainty, or vice versa, finding prices lower than expected might make one distrust the offer and assign lower quality to a product with higher quality. Hence, an individual might (not) be willing to pay more (less) than his/her expected price to obtain a specific quality level, to make sure of what he or she is purchasing and to eliminate worries and concerns, irrespective of the final real outcome. This result could suggest placebo-like behavior.

## **5. CONCLUSIONS**

There are some situations in the market that oblige researchers to adopt a flexible approach. When counterintuitive reactions and departures from rational behavior can be expected, modeling should allow their identification and, if possible, their quantification. Prices in tourism have effects that are not as apparent as neoclassical economic theory predicts: not only can tourists sometimes invert the relationship between price and demand but also they

might be predisposed to pay higher-than-expected prices. In this highly uncertain context, which is very information-sensitive and notably risk-averse and in which information asymmetries are particularly important, price–quality associations, an interest in reducing information asymmetries, hedonistic factors, or even a kind of placebo-like effect might be behind these non-consistent behaviors (Kim & Jang, 2013).

This article has analyzed the effect of the information provided by prices on tourist destination choice by incorporating the sticker shock formulation into the MLM in an attempt to accommodate any possible positive or negative effects. In this regard, by allowing the price and the sticker shock coefficients to take any value – negative or positive – we have detected abnormal behaviors in the tourist demand and estimated the share of each group of people following each pattern. Twenty percent of tourists consider high prices as an attraction factor and choose the expensive alternative, and forty-four percent opt to pay higher-than-expected prices (irrespective of whether the alternative is the most expensive or not). This finding might also be related to the “Veblen effect” and conspicuous consumption (Bagwell & Bernheim, 1996). Consumers might be predisposed to accept a higher price due to their desire to achieve social status by signaling their wealth through purchasing costly products. Furthermore, in terms of a placebo effect, people believe that products with higher prices potentially indicate superior quality to products with discount prices, thus ultimately leading to higher perceived value (Irmak et al., 2005; Shiv et al., 2005). These two psychological concepts can help to explain the behavioral pattern in which travelers are predisposed to pay higher prices than reference prices when making a travel decision.

This study adds to the literature on consumer behavior and pricing in tourism. Numerous studies suggest a negative role of price in perceived quality and value (e.g., Mattila & O'Neill, 2003; Oh, 2003; Ye, Li, Wang, & Law, 2014). Discount prices help travelers to reduce the acquisition cost, which enhances the values of travel experiences. Following a

behavioral approach, however, this paper identifies non-consistent tourist behaviors regarding prices: travelers are more prone to pay higher prices than their reference prices. With tourism being a high-involvement and intangible product (in which conspicuous consumption can easily take place), this research deals empirically with the price–quality schema and can open up new research lines on the analysis of a placebo effect in tourism prices. This suggests a non-linear relationship between a price and a travel choice, which requires multiple concepts/theories to understand it by considering various contexts, including different destinations, products, services, and individual characteristics.

In addition to the theoretical contributions, the results have relevant managerial implications. As price promotions could be attractive for some people but a deterrent for others, firms should try to find a balance whereby a specific price allows them to maximize their profits. This implication is even clearer if we take into account the fact that permanent price reductions tend to lower reference prices (Kim and Kang, 2018); accordingly, after a price promotion, when managers set the price back to its normal level, consumers can regard it as a price increment: “bad news” for some but “good news” for others. This means that a strategy based on premiums could be successful when considering this potential placebo effect on certain consumers. The model used in this application allows marketers to identify those individuals who are willing to accept higher prices and to execute a dynamic pricing strategy (Kimes & Wirtz, 2003). The differential pricing approach would allow tourism marketers to increase the travel income at the destination as well as to improve travel experiences.

Some limitations of this study are the following: i) as the sample is comprised of people who travel to domestic destinations, it entails less information asymmetry, meaning that these non-consistent behaviors might be underestimated, even more considering that reference prices in international travel play a major role (Park, Hahn, Lee & Jun, 2018); ii) as we do not have data on the destination quality and it might be correlated with the price, the availability of



quality measures would allow us to control the estimation of prices better; and iii) to measure reference prices, we have to resort to proxies, as it is not feasible to obtain them directly.

Finally, as a future research avenue, it would be relevant to analyze the new intricacies that the sharing economy brings about and some of its innovative pricing methods in which firms and consumers collaborate in the price-setting process (Stangl & Prayag, 2017). Accordingly, the application of reference prices in contexts such as the “pay what you want” environment – in which, taking an extreme example, an individual could decide to propose a zero price – would be relevant because of the insightful outcomes that could be obtained for both firms and consumers.

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**Table 1. Descriptive statistics**

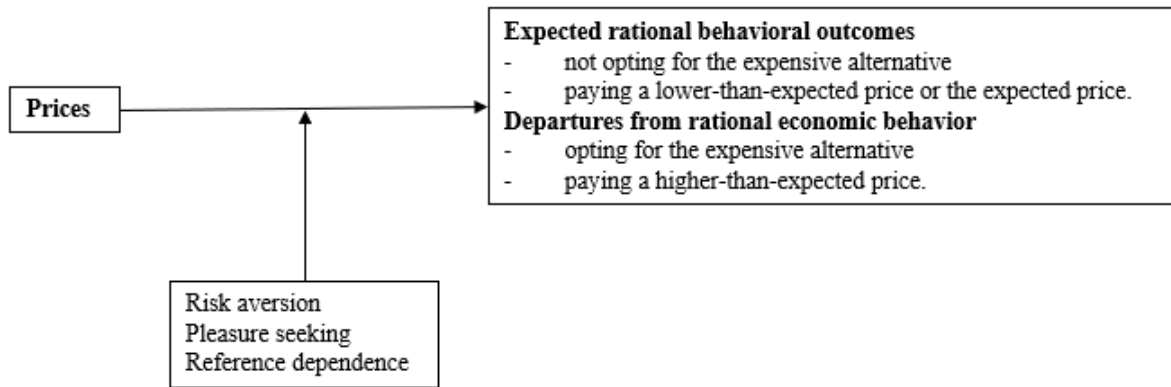
<b>Variables</b>	<b>Average/Proportion</b>	<b>Standard Deviation</b>
<i>Demographic</i>		
Household size (people)	3.27	1.34
Married	58.8%	
Education level		
Basic education	36%	
Secondary education	33%	
University education	31%	
Income		
Up to €600	14.53%	
€600-€1199	40.07%	
€1200-€2399	37.23%	
€2400-€4499	7.80%	
More than €4500	0.35%	
<i>Travel behaviors</i>		
People taking vacations	69.3%	
going to coastal destinations	59.2%	
going to inland destinations	40.8%	
Not taking vacations	30.7%	
Average coastal price	€645.93	353.89
Average inland price	€615.36	266.83
Expenditures	€675.18	876.15
Length of stay (days)	18.33	14.06
<i>Sticker shock</i>		
Sticker shock term	-33.66	7.77
Sticker shock term (coast)	37.60	11.61
Sticker shock term (inland)	-104.92	9.06

**Table 2. Effect of price and sticker shock term on the type of destination.**  
(Standard errors in brackets)

<b>Independent Variables</b>	<b>Equation 1</b>	
	<b><i>b</i></b>	<b>SD of <math>\beta</math></b>
<b>Price</b>	-0.013 <sup>a</sup> (0.004)	0.015 <sup>a</sup> (0.005)
<b>Sticker shock term</b>	0.003 (0.002)	0.020 <sup>b</sup> (0.002)
<b>Coastal Constant</b>	1.965 <sup>a</sup> (0.475)	-
<b>Inland Constant</b>	1.704 <sup>a</sup> (0.437)	-
<b>Log-likelihood</b>	-407.59	

a=prob<0.001; b=prob<0.01

**Figure 1. Expected and unexpected behaviors derived from the effects of prices**



## Appendix: Questionnaire

Have you taken a vacation this year?

How many times?

How long were you away on vacation on each occasion? (number of days)

What type of destination did you go to:

Coastal small town

Coastal city

Inland small town

Inland city

How much did you spend while on vacation?

What is your marital status?

What is the number of people in your household?

What studies do you have?

Basic education

Secondary education

University education

Please, mark the category that reflects your household income:

Up to €600

Between €600 and €1200

Between €1200 and €2400

Between €2400 and €4500

More than €4500