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Are Tourists Willing to Pay More for Sustainable Tourism? - A Choice Experiment in Switzerland

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Abstract

The preferences of tourists and also the willingness to pay a premium for sustainable products are identified by employing a choice experiment with almost 5,000 respondents in Switzerland. It shows that tourists principally favour sustainable tourism products. A gap between thinking and acting can be observed in the outcome of the choice experiment. Generally, the experiment shows that tourists would principally favour sustainable tourism products. Although there are clear preferences in favour of sustainable products, it can be shown that the respondents are only willing to pay a small premium for the inclusion of specific attributes in most cases.

Keywords

Sustainable tourism, demand, empirical survey, choice model, choice experiment, conjoint

Citation

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1. Introduction

Nowadays, one of the often mentioned trends in tourism is the trend towards sustainable tourism. There are several reasons why sustainable tourism is believed to become important in the future. A recent study of the SNV Netherland Development Organisations (SNV 2009) lists “generational shifts”, “urbanisation”, “need to connect with nature”, “going green”, “demand for authenticity”, “search for fulfilment” and “emergence of experiential tourism” as lifestyle trends that favour responsible travel. However, the authors believe that it is not finally answered whether sustainable products are actually bought by tourists and if they are willing to pay more for sustainable products. Therefore, the aim of this study is to investigate empirically if there is a potentially interesting market for sustainable tourism products and if tourists are willing to pay more for sustainable tourism.

In this paper, the preferences of tourists and also the willingness to pay a premium for sustainable products are identified by employing a choice model. This methodology allows the design of products which include specific characteristics of sustainable tourism and the ability to determine the preferences of customers relative to the different included characteristics of sustainable tourism. To our knowledge, there does not exist a study in the scientific literature which uses choice models to address questions related to preferences towards sustainable tourism products which consider all dimensions of sustainability. Only the influence of ecological aspects or aspects not related to sustainability has been determined in most of the existing studies which use choice models. Furthermore, most of the existing studies which look at the demand for sustainable tourism products in general use contingent valuation and related methods. Therefore, the study adds to the existing literature a more detailed derivation of the preferences and willingness to pay for sustainable tourism regarding all three dimensions of sustainability. Additionally, choice models overstate the willingness to pay less than the often used method of contingent valuation.

There are some studies which try to measure the potential of sustainable tourism or for ecotourism. Adlwarth (2010) presents a survey on the holiday travel of German tourists in the tourism year 2007/08 and categorises the households as Corporate Social Responsibility (CSR)-interested and non CSR-interested households. 33% of the travel active households are CSR-interested, which means that “they scored disproportionately high in values such as environment and climate protection, development aid, compliance with ethical standards especially human rights and social commitment for social disadvantaged.” He finds that 50% of the CSR interested travellers would spend up to 5% more money and the remaining 50% as much as 10-15% more.

Most of the other existing studies only look at the demand for eco-tourism or ecological aspects of sustainable tourism. TripAdvisor (2010) find in their ecotourism survey that 38% of travellers worldwide said that “environmental-friendly tourism is a consideration.” According to the TripAdvisor survey, 34% are willing to pay more for an environmentally friendly hotel, 25% are willing to pay a premium of 5 - 10 % and 12% a premium of 10 - 20%. However, a study of travelhorizons (2009) states that only 9 % of U.S. consumers are willing to pay more for green travel options and only 3% have purchased a carbon offset, although 78% of travellers consider themselves as “environmentally conscious”. According to a Lonely Planet study (2007), 70% of the respondents state that they have already travelled in an environmental friendly way, which means in the context of this study for example that they used a bus instead of an airplane for the journey to the destination. Over 90% declare that they will consider sus-

tainability when they travel in the future. Deloitte (2008) investigated the behaviour of business tourists: 38% have informed themselves about the eco-friendliness of the hotel, and 28% are willing to pay 10% more for an eco-friendly hotel. Rheem (2009) carried out an online survey to target the U.S. online traveller population. She focuses on environmental aspects (reduction of consumption, reduction of harmful output / recycling, product procurement and emissions offset). The main findings are that 44% of U.S. travellers consider environmental aspects important when they plan their travel and a third of travellers are willing to pay a premium for green travel.

However, these studies, which mostly define price premiums for sustainable products, ask only about how much people are willing to buy in a simple question. These kinds of studies tend to clearly overstate price premiums because only intention is measured without looking at the actual behaviour or without making comparisons with other goods or prices.² In order to check for the behaviour, Adlwarth (2010) looks at the travel patterns for holidays of CSR-interested travellers and compares them with the pattern of non-CSR interested. For example, CSR-interested travellers choose significantly more frequently train travel and bus.

Although a choice model has not been applied to the research question of this paper so far, there are some examples of choice experiments in the context of tourism research. Brau and Cao (2008) is a good example. They look among other things at the influence of environmental quality on the willingness to pay for a week's holiday in a good quality three star hotel for a beach and seaside vacation. Their attributes for the choice experiment are:

- Proximity of main tourist attraction
- Risk of overcrowding at main point of attraction
- Uncontaminated and unspoilt natural environment as a primary attraction
- Availability of recreational services
- A natural reserve in the vicinity of the holiday location
- Daily cost per person per night (half board accommodation in a 3 star hotel)

Different quality levels are assigned to these attributes. Their key finding is that "people mostly dislike a high risk of overcrowding and a shift from maximum to minimal environmental quality." They find large monetary values with a willingness to pay for a maximal environmental quality of 64.75 Euros compared to the situation with minimal environmental quality.

Discrete choice modelling has been further applied to the analyses of the effects of different characteristics of an accommodation facility on the willingness to pay of tourists (as for example in Morimoto, 2005 and Morley, 1994). Discrete choice models have also been applied to destination choice in general (Huybers, 2003b; Huybers and Bennett, 2000), to determine the important factors for short-break holiday destination choices (Huybers, 2003a) and to measure the willingness to pay for visits to a national park (Verbic, 2009). Hearne et al. (2002) apply a choice model to the management of protected areas in Costa Rica and show that "choice experiments are a feasible mechanism to analyse user preferences". However, there are no studies that directly apply discrete choice models to sustainable tourism products.

The article is structured as follows: The empirical method will be presented in section 2, the results in section 3 and finally the conclusions are presented in section 4.

² Rheem (2009) asks "how much of a premium would you be willing to pay for any environmentally friendly travel choices when travelling for leisure?" She presents different options to the respondents, as for example "travel (in general)", "air travel option", "train travel option", etc. and lists the willingness to pay for each option. This method is called contingent valuation.

2. Empirical method

A choice experiment was conducted in this study. A choice experiment is employed because there is not enough real data from the tourism market to measure the demand of tourists regarding sustainable tourism products. Questions related to the booking of sustainable tourism products and to the willingness to pay can therefore only be answered by employing so-called “stated preference” methods. A choice model is used in this study because it is best suited for analysing the influence of characteristics of a product (the so-called attributes) on demand for a product.

In choice models, the marginal willingness to pay (MWTP) is not questioned explicitly (as it is the case in contingent valuation) but implicitly. The main idea, based on the Lancasterian utility theory, is that products can be described by their characteristics and that every single attribute contributes to the utility a consumer derives from a product. Hence, changes in the attributes alter the utility derived from consuming a specific good. Changes in these single attributes and their impact on the utility of consumers are measured in choice experiments. Holidays for example have a lot of attributes: price, location, accommodation, mean of transportation to the destination, etc. The respondents are asked to choose between alternatives which are described using the attributes in a choice experiment. In the case of this study, the respondents had, for example, to choose between a product which was unsustainable and a product which was sustainable in some attributes, as for example in the use of local products. Furthermore, it is crucial that choice experiments always include a price attribute in order to derive realistic results. The result of a choice model is information on the existence and size of trade-offs between the included attributes. A trade off exists if the respondents are willing to give up something in order to get a higher level of an attribute. The measurement of these trade-offs allows the researcher to obtain an impression of which specific characteristics of a product significantly influence the value of the product. This allows the calculation of the willingness to pay regarding changes in different attributes.

A survey using a product as offered by the Swiss tour operator Kuoni during winter 2011 was conducted in Switzerland. It is regarding a guided safari in South Africa, lasting two weeks, which leads the tourists through the unique landscapes of South Africa, starting in the North in the famous Kruger National Park, further through Swaziland and the Hluhluwe National Park and finally following the famous Garden route to Cape Town. The minimum standard for all overnight stays is a four star hotel. The basic offer costs 4,900 Swiss Francs (\$ 5,440). This price is all inclusive, also including the flight from Switzerland to South Africa.

This basic product is altered in the choice experiment: Some attributes describing sustainable tourism are added to the normal description in the Kuoni prospectus in order to compare different products on different sustainable levels. These attributes reflect tourists’ understanding of sustainable tourism, as they have been specified as the most relevant attributes for sustainable tourism by tourists in a previous empirical study of Wehrli et al (2011a). Therefore, the following attributes of sustainable tourism are used in the choice experiment:

- Use of local products
- Environmental management (energy, water and waste)
- Working conditions
- CO₂-compensation

The use of local products is included because this attribute was identified as crucial for sustainable tourism products in Wehrli et al. (2011a). In the ecological dimension, waste manage-

ment and other aspects which can be experienced by the tourist are the most important attributes. Therefore, environmental management, including energy, water and waste, is put together in one attribute. "Working conditions" is incorporated because no discrimination is seen as a very relevant aspect in the social dimension. Finally, CO₂--compensation was chosen because it is a highly debated topic and because it is a product included by a lot of sustainable tourism providers.

During the choice experiment, the respondents had to make 14 choices. Each choice was composed of two products which considered the included attributes of sustainable tourism differently and a zero option. Table 1 presents the attributes and a detailed description of the levels of the attributes. Please note that the lowest price is the official price in the catalogue of Kuoni. With each higher price level, the price increased again by 50 Swiss Francs (\$ 55.5).

Although the attribute "upkeep of a scenic view and the cultural heritage" is considered as essential from a tourists' perspective, it is not considered in the choice experiment because it would be hard to distinguish if the utility generated by this attribute is due to the direct effect of a nice landscape on tourists' holiday experience or due to aspects related to sustainable tourism. There are no attributes from the economic dimension because it is difficult to describe them in a brief sentence or with a keyword during a choice experiment. The chosen attributes and their levels allow for $(7^1 * 3^3 * 2^1)$ possible combinations and therefore for 126 different products. 300 different questionnaires with different selections of products and choice sets were created by using the Choice Based Conjoint (CBC) software of Sawtooth. Each questionnaire consists of 14 choice sets and questions related to travel behaviour and socio-demographics. Two of the 14 choice sets are fixed choice sets which are presented to every respondent, whereas the other twelve choice sets differed according to the 300 generated questionnaires.

Variable name	Level	Description
Price	4,900 CHF	
	4,950 CHF	
	5,000 CHF	
	5,050 CHF	
	5,100 CHF	
	5,150 CHF	
	5,200 CHF	
CO ₂ -compensation	No CO ₂ -compensation	
	CO ₂ --compensation	The CO ₂ -emissions caused by the outward and return journey are compensated through the support of climate protection projects.
Local products	Almost no local products	Almost no local products are used.
	Local food	There are predominantly meals made from local products on the menu.
	Local food and local building material	There are predominantly meals made from local products on the menu and the hotel was built by using mainly local building material.
Environmental management	No measures	Waste lies partly around, there are no sewage plants, and the energy use is not controlled.
	Some measures	No waste lies around, untreated sewage does not flow into the sea and basic measures towards an efficient use of energy are taken, for example the use of energy-saving lamps.
	A lot of measures	Waste is minimised, separated, composted and recycled, sewage is completely treated in sewage plants and energy is used efficiently.
Working conditions	Unclear working conditions	The working conditions were not controlled.
	At least fair wages	Fair wages are paid. The other working conditions were not controlled.
	High international standards	Fair wages are paid and the working conditions satisfy international standards.

Table 1: Attributes and levels used in the choice experiment "South Africa"

A representative choice set is presented in Figure 1 in its original version in German as seen by the respondents. The respondents are supposed to choose one of the two products or the zero option "I would not choose any of these products".³

³ The first product, which costs CHF 5,200, does not offer CO₂-compensation and considers almost no local products. However, a lot of environmental measures are taken and the working conditions are according to high international standards. The second product offers CO₂-compensation and considers local food and local building materials. However, it is not sustainable from an environmental perspective ("no measures") and less sustainable regarding working conditions than the first product ("at least fair wages").



Figure 1: A representative choice set

A pilot was carried out before conducting the survey. The pilot showed that the respondents understood the question well, despite the complexity of a choice experiment. To simplify the experiment one attribute was dropped, which led to the list of attribute as presented in Table 1. Finally, the link to the definitive online survey was sent to a total of 14,574 customers of Kuoni and Helvetic Tours, two Swiss tour operators of whom 2,348 completed the questionnaire. The questionnaire was provided in German and French and the French version was also sent to the Italian-speaking population of Switzerland. The response rate of completed surveys was 16%. Another 10% started to answer the questionnaire but did not finish. Most of these respondents, who did not complete, finished as early as the first page, where an introductory text was presented. A second, smaller peak of people stopping their participation is observed at the beginning of the choice experiment.

Initial Sample	14,574	100%
Response	3,788	26%
Completed	2,348	16%

Table 2: Response rates

3. Results

In this chapter, the results of the choice experiment, which are derived by using a CBC/HB analysis, are presented. In section 3.1, the discussion of the preferences is presented, followed by the analysis of the part worth and importance in Section 3.2 and the calculation of marginal willingness to pay for the selected attributes in section 3.3.

3.1. Preferences

The preference shares are calculated by employing a counting analysis with the software SMRT from *Sawtooth*. The preference share shows how often a single level of an attribute has been chosen if this specific level of the attribute was included in the choice set.

3.1.1. Price

Total Respondents	2348
4,900 CHF	38%
4,950 CHF	37%
5,000 CHF	37%
5,050 CHF	36%
5,100 CHF	35%
5,150 CHF	35%
5,200 CHF	34%
$\chi^2(6, N = 2348) = 9.78, p = .134$	

Table 1: Preferences price

The lowest price of CHF 4,900 is most strongly preferred and was chosen in 38% of the cases where it was included in the choice set. The highest price of CHF 5,200 is least preferred and is only chosen in 34% of the cases where it was included in the choice set. The decreasing preferences for higher prices are in line with our expectations (the higher the price, the less a product is chosen). Nevertheless, the price does not have a large importance, since the differences are statistically not significant with a χ^2 -value of $\chi^2(6, N = 2348) = 9.78$. Reasons for this non-significance could be the small price increment (CH 50) and the high number of levels (Orme, 2002). The increment and the number of levels were specified in this way because the Swiss tour operator Kuoni assessed them as realistic for the choice experiment and the aim of the study is to test real products based on the product of Kuoni outlined above. Therefore, the authors relied on the judgement of the experts of Kuoni.

3.1.2. CO2-Compensation

Total Respondents	2348
No CO2-compensation	31%
CO2-compensation	42%
$\chi^2(1, N = 2348) = 60.02, p = .000$	

Table 2: Preferences CO2--compensation

CO2-compensation having a preference of 42% is much stronger preferred compared to the choice of no CO2-compensation (31%). The difference is significant.

3.1.3. Local Products

Total Respondents	2348
Almost no local products	23%
Local food	41%
Local food and building material	44%
$\chi^2(2, N = 2348) = 250.17, p = .000$	

Table 3: Preferences local products

The levels “local food and building material” with a preference of 44% and „local food” with 41% are much stronger preferred than no local products (23%). The difference is significant and local food and building material is almost twice as often chosen as no local products.

3.1.4. Environmental management

Total Respondents	2348
No measures	16%
Some measure	45%
A lot of measures	48%
$\chi^2(2, N = 2348) = 652.06, p = .000$	

Table 4: Preferences environmental management

The more sustainable levels “a lot of measures” with a preference of 48% and “some measures” (45%) are clearly stronger preferred than no measures (16%). The difference is significant and a lot of measure is chosen three times more often than no measures.

3.1.5. Fair working conditions

Total Respondents	2348
Unclear working conditions	20%
At least fair wages	40%
High international standards	48%
$\chi^2(2, N = 2348) = 418.42, p = .000$	

Table 5: Preferences fair working condition

Again the more sustainable levels of the attribute are clearly and significantly preferred. The level “high international standards” has a preference of 48% and “at least fair wages” 40% compared to 20% for the level “unclear working conditions”. “High international standards” is chosen more than twice as often as unclear working conditions.

3.1.6. None

Total Respondents	2348
None chosen	28%

Table 6: Preferences fair "None" option

In 28% of all choices the respondents choose the answer "I would not choose any of these products". This value is comparatively high. Typical values lie between 5% and 15% (Johnson & Orme 2003). The high value in this study is caused by the fact that the share of None-responses positively depends on the number of attributes (Patterson & Chrzan 2003) which is relatively high in this experiment.

3.2. Part Worth and Importance

A hierarchical Bayes model was used and estimated with the CBC/HB-tool from *Sawtooth* in order to derive part worth utilities on an individual level. The model is given by the following equation which shows the estimated probability of individual h choosing concept j (Sawtooth 2010, more detailed in Gensler 2003):

$$\hat{p}_{h,i} = \frac{\exp(\hat{\beta}'_h x_i)}{\sum_{i \in C_a} \exp(\hat{\beta}'_h x_i)} \quad \forall h \in H, i \in C_a \text{ and } C_a \subseteq I$$

$$\hat{\beta}_h \sim \text{MVN}(\mu, \Gamma)$$

$\hat{p}_{h,i}$ = estimated probability of individual h choosing concept j

$\hat{\beta}_h$ = estimated vector of part worths for individual h

C_a = index set of stimuli in choice set a

x_i = vector of values describing the alternative i in a choice task

μ = vector of means of the distribution of individuals' part worths

Γ = matrix of variances and covariances of the distribution of part worths across individuals

The average part worth utilities, the standard errors and the t-ratios of the above mentioned logit estimation using hierarchical Bayes iteration are shown in Table 7.

Attribute	Effect	Std Err	t Ratio	Range	Importance
Price					
4,900 CHF	3.450	0.01335	5.08		
4,950 CHF	6.870	0.00800	19.80		
5,000 CHF	1.720	0.00627	5.12		
5,050 CHF	3.310	0.00600	12.70		
5,100 CHF	-2.070	0.00716	-8.38		
5,150 CHF	-3.050	0.00878	-4.38		
5,200 CHF	-10.230	0.01242	-19.01	13.680	3.2%
CO2-compensation					
No CO2-compensation	-21.150	0.00841	-67.27		
CO2-compensation	21.150	0.00841	67.27	42.300	9.7%
Local products					
Almost no local products	-59.940	0.01884	-87.40		
Local food	24.440	0.00913	73.30		
Local food and building material	35.500	0.01147	85.21	95.440	22.0%
Environmental management					
No measures	-99.150	0.02495	-108.98		
Some measures	44.490	0.01228	98.71		
A lot of measures	54.660	0.01452	103.77	153.810	35.4%
Fair working conditions					
Unclear working conditions	-74.740	0.01977	-102.92		
At least fair wages	20.770	0.00792	70.77		
High international standards	53.970	0.01493	98.72	128.710	29.7%
None	-42.280	0.08093	-6.82	42.280	–

Table 7: Results from the CBC/HB model – Part worths and importances

The size and the sign of the part worth show the expected values.⁴ The part worth for the prices show the negative influence of a higher price on the probability of buying a product, i.e. the higher the price, the lower is the demand for a specific product. The attributes which describe aspects of sustainable tourism all have positive coefficients of higher levels of the respective attribute. This indicates that the more sustainable a product is the higher is the probability that customers will buy the product. Hence, it can be concluded that there is a high level of face validity in this estimation. All variables are significant; whereat the price variable has clearly the lowest t ratios. As already seen in the analysis of the preferences, the price has the lowest importance in the choice of the offered tourism products in this experiment. The part worth of “None” is relatively high and therefore also the threshold for not buying the product. This means that none of the two offered products within one specific choice set has been chosen by the respondents for a relatively large number of combinations of the attributes. This is, amongst others, caused by the fact that some unreasonable combinations of attributes could have been occurred, as for example strongly diverging characteristics of the attributes with

⁴ The part worth are shown in the column “effect” in Table 7. The part worth utilities are zero-centred and rescaled by using the CBC/HB algorithm

respect to sustainability, which made it difficult for the respondents to choose one specific option.

Under simplifying assumptions, the range of the attributes can be interpreted as importance of the attributes (Orme 2010). Price has with a value of 3.2% a low importance (see Table 7 and Figure 1). This supports the results of the analysis of preferences. Environmental measurements show the highest importance having a value of 35.4%. It is surprising that the variable price has despite the number of level effect⁵ such a low importance.

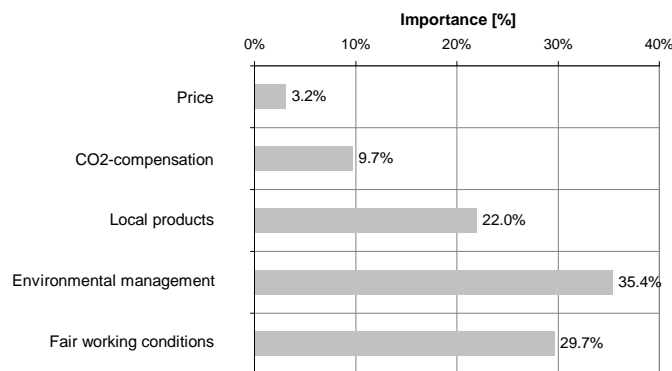


Figure 1: Results from the the CBC/HB model – Importances

3.3. Marginal willingness to pay for sustainable holidays

The marginal willingness to pay for an increase in the level of an attribute is calculated by dividing the coefficient of an attribute β_i and the coefficient of the price γ (Train 2009).

$$MWTP = \frac{\beta_i}{\gamma}$$

The coefficient for the price (γ_{Model}) is estimated because the part worths from the estimations in Table 7 are not continuous. This is done by estimating a vector model for the price variable. The slope in the vector model ($\gamma_{\text{Model}} = -0.02752$) corresponds well with the slope in the effects-model if fitted with a linear regression ($\gamma_{\text{Regression}} = -0.02765$, $t(5) = -6.75$, $p = .001$). Figure 2 illustrates this fit graphically. The regression explains a large part of the variability of the average part worth utilities of the price ($R^2 = .90$, $F(1, 5) = 45.49$, $p = .001$). Therefore, a vector model of the price variable can be assumed in the following.

⁵The „number-of-levels effect” means that the relative importance of an attribute depends on the number of levels. The attributes with a higher number of levels are more important due to this effect, if the number of levels is not the same for all attributes. Therefore, the calculated importance of an attribute with more levels overstates the true importance of the attribute (Verlegh et al. 2002).

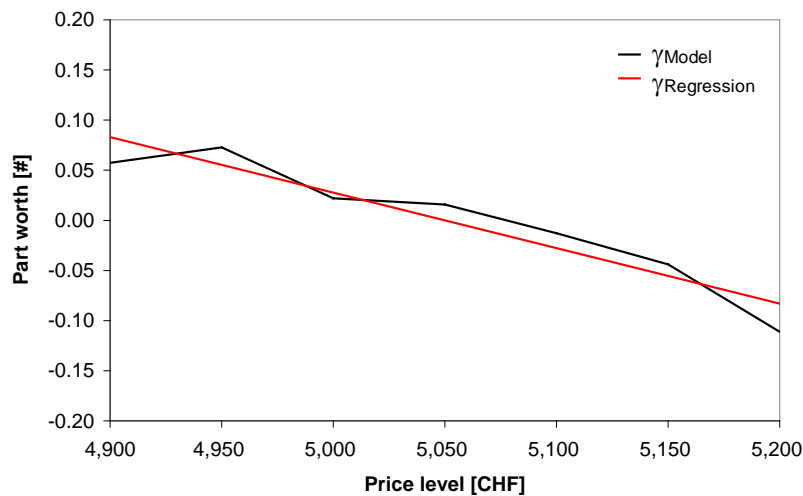


Figure 2: Slope of the effects model with fitted regression line

This calculation leads to the following marginal willingness to pay for the attributes as presented in Table 8.

Attribute	MWTP in US Dollar ⁶	MWTP in per-cent of price
CO₂-compensation	9.8	0.19%
Local products		
Local food	10.3	0.20%
Local food and building material	16.1	0.31%
Environmental management		
Some measures	19.3	0.37%
A lot of measures	24.5	0.47%
Fair working conditions		
At least fair wages	8.9	0.17%
High international standards	23.8	0.46%
Total (sum of highest level of each attribute)	74.3	1.43%

Table 3: Marginal willingness to pay (MWTP) for selected attributes (in US dollars)⁷

The MWTP for the attributes is between \$ 8.9 and \$ 24.5. The respondents are only willing to pay \$ 9.8 for CO₂-compensation of the journey to and back from the destination. CO₂-compensation from MyClimate⁷ for a return flight to South Africa costs 138 US dollars (MyClimate, 2011). This is a large gap and their willingness to pay is clearly lower and clearly below the market price. This explains why only a small number of tourists actually compensate CO₂emissions of the journey as mentioned in Broderick (2008). Furthermore there is a continuing discussion and criticism about the credibility and effectiveness of CO₂-compensation (Broderick, 2008). Therefore a lot of consumers are not willing to buy CO₂-compensation.

⁶The prices shown in the presented choice sets were in Swiss Francs. The exchange rate of 1 CHF = 1.10979 USD from March, 18, 2011 is used to calculate prices in US dollars.

⁷MyClimate is one of the leading providers of CO₂-compensations in Switzerland (see www.myclimate.org).

The MWTP for the other attributes are also low, although a preference for more sustainable levels of the attributes was found in section 3.1. In total, the sum of the MWTP for the highest level of each attribute leads to a total willingness to pay of \$ 74.3. This value is comparable to other studies. Casey et al. (2010) find in a choice experiment a mean willingness to pay for a “coral fund” in the Riviera Maya region of Mexico’s Yucatan Peninsula of \$55, and Brau and Cao (2008) find in a choice experiment a mean willingness to pay 64.65 Euros for environmental quality at the beaches in Sardinia. However, Brau and Cao say that this high willingness to pay exists only where losses with respect to original conditions are expected.

It is also interesting to look at the relative MWTP, i.e. the premium in percentage of the total price. The price of the baseline offer of safari vacations in South Africa lasting two weeks was \$ 5,430. Therefore, using this base price, the relative MWTP for sustainable aspects are calculated in Table 8. The respondents are willing to pay a premium of 1.43% for the inclusion of all attributes considered in this survey.

The fact that people would prefer aspects of sustainability to be included in the product but are not willing to pay a significant mark-up is a common finding in the literature of sustainable consumption (Priskin, 2009). Vermeir and Verbeke (2006 and 2008) looking at food consumption find evidence for this so-called “attitude – behaviour gap”. They even find that a lot of people with a positive attitude towards sustainability do not intend to buy such products.

The willingness to pay for sustainable tourism products is low compared to the willingness to pay for “green” food. Galarraga et al. (2004) use hedonic pricing to show that the consumers are willing to pay 0.003 Euros more per gramme of coffee due to the inclusion of green characteristics, which is a relative increase of 11.26%. Loureiro et al. (2005) also find that consumers are willing to pay a premium for ecological and fair trade coffee. The found maximal MWTP of \$3 per pound of coffee for an organic and fair trade labelled coffee. There are two main reasons for this higher MWTP compared to this survey. First, the above mentioned studies in the food market also state that the market for sustainable food is only a niche market and that this high level of high premiums are only realised in this small niche market, whereas this study considered the whole tourism market and not only the niche market of sustainable tourism. Second, consumers are less willing to behave sustainably during holidays than during their everyday life. They want to forget their daily life, enjoy their holidays without privations and do not want to think about the effect of their behaviour. Becken (2007), applying focus group research, finds that tourists distinguish between their everyday life and their holidays. “The value of freedom to travel is firmly established in the minds of many tourists and limiting travel is considered unacceptable.” Weaver (2008) confirms the finding that tourists suspend their sustainable attitudes and behaviour during their holidays. The so called “vener environmentalists” (Weaver, 2007, cited in Weaver, 2008): sympathise with the idea of sustainable tourism, but are unwilling to take concrete and personal measures. About one half of the consumers in the U.S. belong to this group whereas 1/4 are “non-environmentalists” and 1/4 are “environmentalist” who are willing to make changes.

The low MWTPs in this study indicate that there is not much potential to substantially increase prices due to the inclusion of a specific aspect of sustainable tourism in a product. However, two fixed choice tasks were proposed to all respondents in order to concretely observe if tourists are willing to buy a specific product. In both choice sets, a variant with all attributes on the unsustainable level is compared with a more sustainable product. In the first case, the more sustainable product included CO₂-compensation and the use of local product and building materials, in the second case, the levels of all attributes are set on the most sustainable value. The

fully sustainable product is clearly preferred to the basic product. 85% choose the perfect sustainable product compared to the basic product. This indicates that people have a strong preference for a completely perfect sustainable product and that in this case, their price sensitivity might be lower.

4. Conclusions

A gap between thinking and acting can be observed in the choice experiment undertaken in Switzerland. Generally, the choice experiment shows that tourists would principally like to buy sustainable tourism products. The respondents consistently favoured the more sustainable levels of the proposed attributes. Although there are clear preferences in favour of sustainable products, it can be shown that the respondents are not willing to pay a substantial premium for the inclusion of specific attributes. The range of the premium for a specific attribute is between \$ 8.9 and \$ 24.5. These small premiums for the inclusion of a specific aspect of sustainable tourism indicates that from a financial point of view it is not profitable to include only some selected attributes of sustainable tourism in an existing product. There is some evidence that potential customers of sustainable tourism products demand completely sustainable products and they are less price sensitive for such products. This indicates that there is only a potential market for a completely sustainable product. People are only willing to pay substantially more if they know that their vacations are sustainable in all dimensions. Some respondents also reported as a qualitative feedback that they do not understand why they should pay more for a product which is not completely sustainable.

A previous study (Wehrli et al, 2011a) concludes that sustainable tourism is an interesting market segment with a target group of 22% sustainability aware tourists. These tourists consider sustainability as important when booking a holiday. Typically, these customers are well-educated and have a high income. But there is no large market for products with high premiums because the willingness to pay for attributes of sustainable tourism is low, as it has been showed in this study. However, offering sustainable tourism products could be a successful differentiation strategy. The diversification of the existing array of products by developing sustainable products could help to increase the market share of a company relative to its competitors, because the preferences in this study indicate that tourists strongly prefer sustainable products. Hence customers are expected to switch to sustainable offers as long as these products are not substantially more expensive than the non-sustainable or less sustainable products of the competitors.

Although this study offers new insights, there remain still a lot of questions for further research. There is some evidence that tourists are less price sensitive when a completely sustainable product is offered. Hence, it would be interesting to make a new choice experiment with products that are either completely sustainable or do not mention sustainability in the description of the product to verify this guess. Furthermore it would be interesting to know if tourists from other source markets differ in their willingness to pay for sustainable tourism

5. References

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