

Do sustainability-experienced travellers prefer a more rational communication of the sustainability of a tourism product?

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Abstract

This study empirically examines, in four countries, which communication style (emotional or rational) is most appropriate for addressing sustainability-experienced travellers. There are only small differences compared to the average tourist. Rational communication elements, which explain the sustainability of the product, become more important for this specific customer group. However, most emotional communication elements are still more important in most countries, indicating that experienced tourists also process sustainability information in a heuristic way.

Keywords: sustainable tourism, communication, marketing, empirical survey, choice experiment, conjoint, experience.

1 Introduction

There are different ways for a destination and other tourism actors to become more sustainable. One possible way to stimulate a destination's sustainable development is to attract people who behave in a more sustainable way (Dolnicar [1]). This will not only decrease the ecological footprint of the destination due to the more ecological behaviour of this customer group but will also deliver an incentive to all actors in the destination to develop more sustainable offers.

Although the general academic literature about green consumerism and pro-sustainability behaviour dates over two decades (Young *et al.* [2], Cherian and Jolly [3]), in a tourism context the field remains fairly new with just a few publications (Han *et al.* [4], Lee *et al.* [5]), Some frameworks from the academic



literature and some guidelines for the general marketing of sustainable products exist, but there are still major research gaps to empirically explain which way of communication is most effective to influence pro-sustainability consumer choice in tourism. Wehrli *et al.* [6] is one of the first studies to address this research gap, whereby the research finds a general preference “for emotionally laden communication styles for sustainable tourism products.”

Dolnicar and Leisch [7] conclude that selective target marketing should be part of sustainable tourism marketing and that those who behave environmentally friendly should be targeted differently. They find empirically that Australians who behave environmentally friendly can be characterised differently with respect to psychographic, behavioural and socio-demographic personal characteristics. However, they do not answer how to communicate with this specific customer segment. Wehrli *et al.* [6] do not look specifically at this market and they do not deliver any insights about the best communication style towards this specific market segment. Other studies which distinguish between environmentally friendly customers and other customers mainly examine socio-demographic differences between the two groups (Fairweather *et al.* [8] and Dolnicar [9]).

There is no empirical research on which type of communication (e.g. emotional or rational communication styles) is best suited for the specific market segment of sustainability aware tourists, as identified in Wehrli *et al.* [10], or even for those who have already booked sustainable tourism products. Therefore, this paper addresses this research gap empirically by providing insights into the following:

- a) Do sustainability-experienced travellers prefer a different communication style compared to travellers who have never booked a sustainable tourism product before?
- b) Should the textual communication focus more on the rational level for sustainability for experienced travellers in order to increase purchase intention?
- c) Does the inclusion of a graph explaining the sustainability of the product increase the purchase intention for this specific customer group?

In this paper tourists who indicate in the survey conducted for the study having already booked a sustainable tourism product are referred to as “sustainability-experienced tourists” from here on.

2 Literature review

Extensive research in consumer behaviour has investigated communication effectiveness. Most prominent are dual-process models explaining the effectiveness of communication on the bases of two strategies of information processing. One strategy is referred to as heuristic (Chaiken, [11], Tversky and Kahnemann [12]) or peripheral (Petty and Cacioppo [13]). Heuristic processing is characterized by an application of simple decision rules or heuristics (e.g. the lower price is a better deal or a green label indicates ecological sustainability). Judgment formation based on heuristic cue information is a relatively effortless

and cognitively minimally demanding way of information processing. Relating this reasoning to the effectiveness of emotional appeals we assume that emotional responses function as heuristic cues (Bless *et al.* [14], Pham [15]) inducing heuristic information processing. The other strategy is referred to as systematic (Chaiken [11], Tversky and Kahnemann [12]) or central (Petty and Cacioppo [13]). Systematic processing is marked by a more effortful and cognitively demanding analysis of judgment-relevant information than heuristic processing (Chen and Chaiken [16]). Subsequently, systematic processing is more complex, logical, rational and related to facts (Pacini and Epstein [17], Sloman [18]).

From the family of dual-process frameworks this research uses the heuristic-systematic model (HSM) (Chaiken [19], Chaiken and Stangor [20]) to attempt to explain persuasion in the context of sustainable products. The HSM defines ability and knowledge as central factor to determine when judgments will be mediated by systematic information processing (Chen and Chaiken [16]): people who are expert about a topic tend to use systematic information processing while people with a lack of knowledge about a topic tend to process information relying on heuristic cues (Mackie and Worth [21, 22]). Additionally, Bohner *et al.* [23] found that heuristic effects related to emotional responses tend to be restricted to situations when expertise is low. We assume that these effects also apply in the context on sustainable products: On the one hand, consumers with experience in sustainability will have more ability to process appeals related to sustainability and will tend to use a systematic route of information processing (Mackie and Worth [21, 22]). For those consumers we assume rational appeals to be more important for decision-making. On the other hand, travellers with no experience with sustainable products will exhibit low ability for information processing motivation and are expected to use heuristic cues as a bases for decision-making. Hence, we propose emotional appeals to be more useful. Therefore, we propose the following hypothesis:

Hypothesis 1: For (non-)experienced travellers rational (emotional) texts are more important for decision making.

3 Empirical method

This study consists of two empirical phases: a pre-test experiment and a choice experiment surveying only people who have travelled during the last year. Both surveys were conducted in Germany, Switzerland, UK and USA with a sample size of at least 750 valid and completed responses. The samples of both phases are representative of the population of each country. This section briefly explains the two experiments, while Wehrli *et al.* [6] provide a detailed description

A pre-test experiment was conducted to determine tourists' perceived level of emotionality and rationality of text and image communications. The experiment proposed different pictures and short texts relating to the standard and sustainable characteristics of a beach holiday (e.g. the beach is nearby, local products are served and so on). The sustainable characteristics used in the experiment are the most important elements of a sustainable tourism product as

identified in Wehrli *et al.* [10]. The same feature was described three times with different levels of emotionality and rationality in each case. These levels were changed for each case based on insights from linguistic literature, particularly the methods proposed by Demarmels [24]. This method proposes different means to alter communication emotionality by using different verbal and visual language, symbols, punctuation marks, key words, emotional connotations, rhetorical figures or promises of happiness and threats. Each respondent rated the communication elements by means of a Likert scale from 1 to 7 according to emotionality and rationality using items based on the works of different researchers (Holbrook and Batra [25], Mehrabian and Russel [26] and Rosselli *et al.* [27]).

To test communication preferences by potential customers, a choice experiment was conceived with different ways to communicate the features of a fictive holiday product. This product represented a typical mass tourism beach holiday. The choice experiment did not vary the characteristics of the product; instead respondents were shown different versions of the same product's sustainability attributes and general attributes. Respondents had to choose the preferred version from two different versions in each set. A total of six sets were presented to respondents.

The choice experiment attributes were chosen based on results from the pre-test experiment. The elements where the variation is maximal in one dimension (e.g. emotionality) and minimal in the other dimension (e.g. rationality) were selected in order to ensure the result could be explained by the maximal variation in one communication dimension. The following attributes were used:

- Two pictures at different emotional levels.
- Two text elements explaining standard features of the offer at different emotional levels.
- Two text elements explaining the sustainability of the offer at different emotional levels.
- Two text elements explaining the sustainability of the offer at different rational levels.
- A graph visualising the sustainability was included in some sets.

A detailed description of the choice experiment attributes can be found in Wehrli *et al.* [6].

4 Results

4.1 Descriptive statistics

In the sample 11.1% of the respondents had already booked a sustainable tourism product and belong to the sustainability-experienced group. The values range from 6.9% for UK respondents, 7.7% in USA, 13.3% in Germany, to 16.4% of sustainability-experienced tourists in Switzerland.

This group of sustainability-experienced tourists shows some specific socio-demographic characteristics and travel habits. The following differences

are statistically significant (see Table 1 for the descriptive statistics and test statistics):

- Sustainability-experienced travellers have better education.
- More men than women belong to the sustainability-experienced traveller group.
- Sustainability-experienced travellers book a package group travel deal more often than single packages deals.
- Sustainability-experienced travellers travel more frequently.

Table 1: Socio-demographics of sustainability-experienced travellers for the overall sample.

		Sustainability-experienced travellers	Non-sustainability-experienced travellers	Significance (between group Chi-Square)
Education	low	4%	10%	$\chi(2) = 12.704$ $p = 0.002$
	middle	36%	36%	
	high	60%	54%	
Sex	female	45%	51%	$\chi(1) = 4.818$ $p = 0.028$
	male	55%	49%	
Type of trip	No package deals – all travel products individually booked.	48%	61%	$\chi(3) = 15.566$ $p = 0.001$
	Single package deal	33%	28%	
	Package group travel deal	14%	6%	
	Another form of package deal	5%	5%	
Travel frequency (per year)	1 Trip	9%	18%	$\chi(7) = 25.974$, $p = 0.001$
	2 Trips	22%	27%	
	3 Trips	20%	18%	
	4 Trips	14%	11%	
	5–6 Trips	17%	14%	
	7–8 Trips	4%	3%	
	9–10 Trips	5%	4%	
	> 10 Trips	10%	6%	

No statistically significant differences are found for the variables age, marital status, having children and income. The average duration of a trip does also not differ significantly.

4.2 Results from the choice experiment: importances and preferences

The results from the choice experiment are presented with a focus on the difference between tourist groups, i.e. those classified as “sustainability-experienced” and those as “non-experienced”.

Table 2 shows the importance of each attribute for the two groups separately. The importance measures the relative importance of an attribute on preference changes compared to the other attributes (Hair *et al.* [28]). It is derived by



evaluating the level of influence of each attribute on total utility. The difference between the highest and lowest utility of the levels of each attribute has to be divided by the sum of all ranges of all attributes. The calculation of relative importance values on individual levels was completed and averaged using a tool from Sawtooth (Orme [29]).

Table 2: Importance of the attributes.

		Graph	Picture	Standard text emotional	Text sustainability emotional	Text sustainability rational
Germany (n = 754)						
	Experienced	25.20	21.65	17.18	18.34	17.63
	Non-experienced	41.22	19.90	13.84	13.21	11.82
	Significance	0.000	n.s.	0.012	0.000	0.000
Switzerland (n = 751)						
	Experienced	31.94	23.81	14.69	16.69	12.86
	Non-experienced	38.26	22.62	12.86	15.79	10.48
	Significance	0.001	n.s.	n.s.	n.s.	0.005
UK (n = 751)						
	Experienced	31.91	17.78	17.08	15.53	17.70
	Non-experienced	44.07	17.97	12.76	15.94	9.27
	Significance	0.000	n.s.	0.005	n.s.	0.000
USA (n = 750)						
	Experienced	20.99	28.46	19.85	18.56	12.14
	Non-experienced	35.24	24.43	14.95	16.82	8.55
	Significance	0.000	n.s.	0.001	n.s.	0.000

The importance of the rational sustainability communication attribute is significantly higher for sustainability-experienced travellers compared to non-experienced customers in all countries as shown in the last column in Table 2. Nonetheless, it is still not as important as the emotional textual communication of the sustainability related text element and the standard text element. Interestingly, the graph's importance is clearly lower in all countries. There is one main exception regarding the importance of the text elements: In the UK, the rational sustainability communication attribute is ranked as the most important textual element by experienced tourists. Another smaller exception is Germany where the rational element is more important than the standard text element.

Therefore, Hypothesis 1 is not confirmed. Although the importance of rational sustainability communication is higher for sustainability-experienced travellers, emotional elements are still more important in three of the four countries investigated. This implies that emotional appeals have a higher influence on booking intention. Therefore, experienced tourists do not mainly process information about sustainability systematically as proposed in Hypothesis 1.

In a next step, the preferences are analysed. The preference share shows how often a single level of an attribute was chosen if this specific level of the attribute

was included in the choice set. Table 3 shows the results of the between group Chi-square test, testing if the preferences are different in the two sub-groups. Generally, the preferences are the same for experienced and non-experienced tourists and they do not differ from the preferences as shown in Wehrli *et al.* [6]. They find that the respondents prefer an emotional communication of the sustainability, that they are overall indifferent about the emotionality of the communication about standard product features, that there is only a small significant preference for more rational texts in Switzerland, Germany and the USA and that respondent do not show a preference for including a graph explaining the sustainability of the product.

Table 3 shows that the only significant differences between experienced and non-experienced tourists are the preferences about the inclusion of a graph in Germany and USA and about the “none” option in all countries.

The preferences for a graph are different between the two groups in Germany and USA (Table 4). However, the preferences do not show a significant result within the sustainability-experienced tourist group. Therefore, sustainability-experienced travellers in Germany and USA are indifferent about the inclusion of a graph explaining the sustainability of the product compared to the verbal explanation of the same information. However, non-experienced travellers clearly prefer verbal communication.

Table 3: Comparison of preferences.

	Germany (n = 754)	Switzerland (n = 751)	UK (n = 751)	USA (n = 750)
Graph	p < 0.01	n.s.	n.s.	p < 0.01
Picture	n.s.	n.s.	n.s.	n.s.
Text sustainability emotional	n.s.	n.s.	n.s.	n.s.
Standard text emotional	n.s.	n.s.	n.s.	n.s.
Text sustainability rational	n.s.	n.s.	n.s.	n.s.
None	p < 0.05	p < 0.01	p < 0.01	p < 0.01

Table 4: Preferences for a graph in Germany and USA.

Graph	Germany			USA		
	Total	Experienced	Non-Exp.	Total	Experienced	Non-Exp.
Total respondents	754	100	654	750	58	692
No Graph	48.1%	44.4%	48.7%	47.8%	44.5%	48.1%
Graph included	38.2%	45.3%	37.1%	38.4%	48.7%	37.5%
Within Att. Chi-Square	51.626	0.054	61.257	46.51	0.651	54.147
D.F.	1	1	1	1	1	1
Significance	p < 0.01	n.s.	p < 0.01	p < 0.01	n.s.	p < 0.01
Between Group Chi-Square	9.857			8.499		
D.F.	1			1		
Significance	p < 0.01			p < 0.01		

5 Conclusions

By using an empirical approach to differentiate amongst tourists who have already booked a sustainable tourism product (sustainability-experienced travellers) compared to those who have not, this explorative study shows limited differences in preferences for communication styles. Therefore, emotional communication is mostly preferred by both groups. The only difference in group preferences is the inclusion of a graph explaining the product's sustainability. Non-experienced travellers don't prefer such a graph in all four countries examined, whereas sustainability-experienced respondents are indifferent about this feature in Germany and in the USA.

However, some changes in the importance of the attributes of the choice experiment are observed. Generally, the importance for rational textual communication elements about the sustainability is higher and the importance of the graph is much lower for sustainability-experienced tourists compared to non-experienced tourist in all countries. However, emotional communication elements have still higher importances in USA, Switzerland and Germany. This indicates that experienced tourists also process sustainability information in a heuristic way. The only exception is the UK where the rational textual communication element about the sustainability is the most important textual element.

The fact that no large differences are observed amongst the groups investigated could be explained by considering findings from other researchers. For example, Lee and Moscardo [30] empirically investigated how a tourist's environmental knowledge, awareness, attitudes and behavioural intentions changed after the visit of an ecotourism resort. Overall, they found "few significant differences in respondents' environmental awareness, attitudes, and preferences". Such results also suggest that previous experience does not have a large impact on overall perceptions about the broader sustainability topic. Therefore, it may be conceivable that tourists do not process information significantly more systematically in most cases, since their expertise (about sustainable tourism product attributes) has not really augmented. Hence, it may be plausible to conclude that communication needs and requirements might be only slightly different for tourists who can be broadly classified as "sustainability-experienced tourists" in general.

According to the findings of this study the following recommendations can be suggested for the broader tourism industry:

- At least some parts of textual messages about the sustainability should be written more rationally for sustainability-experienced travellers than for non-experienced customers, because this element seems to have a higher importance in the decision process of experienced travellers. Therefore, additional rational information about the sustainability of the product should be delivered. However, emotional communication of the sustainability is still the most important textual part in most countries (except UK).

- The graph explaining the sustainability of the offer has still a high influence on the booking decision, but the importance is clearly lower compared to the non-experienced travellers. Additionally, the respondents are indifferent between including a graph and the textual explanation in Germany and the USA. Therefore, the inclusion of a graph does not harm bookings in these countries. It might even increase booking intention if the graph is designed in a less business-like way since we believe that the preferences for a graph could be more positive if the graph is more congruent with enjoying holidays and not with daily business as it was designed in this choice experiment.

This paper generally shows no large main differentiation according to experience. The authors consider that there could be a differentiation about best communication styles according to values and attitudes, and social norms of tourists. However, this study did not include these variables, and it is still not clear if these variables explain actual behaviour (Yoon *et al.* [31]), since the attitude-behaviour gap has been shown in several studies (Antimova *et al.* [32], Eijgelaar [33], Hares *et al.* [34], McKercher *et al.* [35], Cohen and Higham [36]). One of the reasons that this gap is especially severe in the case of tourism is that tourists even tend to suspend their sustainable attitudes of their everyday life during their holidays (Becken [37], Weaver [38]). The attitude behaviour gap is another limitation of this study since the method used is a method of stated preferences. Therefore, the authors are unsure if the respondents actually bought the product in reality. However, they can at least confirm that some communication styles are more effective from a relative viewpoint.

Furthermore, online surveys are prone to self-selection bias (Dolnicar *et al.* [39]) and the graph may have been too prominent in the choice experiment applied in this study. Therefore, the authors consider that this might have led to an overestimation of the importance of the graph as the picture and the graph had the same size in order to ensure the readability of the graph in the experiment. Normally, pictures would cover a higher part of the surface of a page in a travel brochure.

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