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# Sustainable tourism: a survey on the propensity towards eco-friendly accommodations

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## Abstract

Considering that the environmental dimension of tourism sustainability is the primary lever to ensure healthy tourism for future generations in a welcoming area for both tourists and residents, this work is trying to probe awareness of the importance of sustainable tourism in all its dimensions, but above all a tourism that respects the environment.

In fact, this work presents the results of a survey on propensity towards environmentally friendly choices when planning the holidays, with a focus on bookings for sustainable accommodation. The people who consider the problem of limiting the environmental damages when planning a holiday are more frequently females, working in the tourism industry, interested in climate changes, persuaded that tourism makes damage, attracted by sustainable tourism and available to pay more for a sustainable tourism. It was found that, what turns a tourist into a *repeater* in the sustainable tourism is how much he is involved in adopting a sustainable lifestyle and the willing to pay more for a sustainable tourism.

**Keywords:** sustainable tourism, eco-friendly accommodation, customer satisfaction

## 1. Introduction

Sustainable Tourism takes account of environmentally sustainable practices used in and by the tourism industry. It is defined by the UN Environment Program and UN World Tourism Organization (UNWTO) as “tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities”. Sustainable tourism also refers to “the environmental, economic, and socio-cultural aspects of tourism development, and a suitable balance must be established between these three dimensions to guarantee its long-term sustainability” [1].

Globally, tourism, although it has been explicitly linked to 3 specific Goals of the 2030 Agenda, namely Goals 8, 12 and 14, has the potential to contribute, directly or indirectly, to all the Sustainable Development Goals (SDGs). Indeed, the UNWTO (United Nations World Tourism Organization) has defined how each objective corresponds to a specific response from the tourism sector [2].

Although the environment represents one of the main attractions of the tourist destinations themselves, what often attracts tourists to travel and leave their usual environment is the motivation to see and experience different places and natural phenomena including countryside, beaches, mountains, islands, environmental assets, that become a fundamental part of the tourist offer of the various destinations. The importance of protecting the environmental dimension of tourism sustainability is not always perceived and then measured in a systematic way [3, 4].

This work was born within the Three-year Degree Course in Planning and Management of Cultural Tourism of the Padua University where through a series of thesis and with the constant technical-scientific comparison with ISPRA’s researchers, an attempt is being made to sound out the awareness of the

importance of a tourism sustainable in all its dimensions but, above all, of environmentally friendly tourism. The investigation at the basis of this work, has tried to indirectly investigate the perception of environmental sustainability in the choice of tourism and, in particular, in the choice of tourist accommodation, and has also probed the propensity for eco-compatible behavioural approaches, trying to outline a profile of a typical tourist attracted by environmentally friendly tourism.

In fact, in this paper, we first depict the profile of people, based on the whole dataset ( $n=474$ ), who are attracted by doing sustainable tourism and that consider the problem of limiting the environmental damages when planning a holiday. Then, by restricting the analysis to the  $n=66$  individuals that had already used an eco-friendly accommodation in the past we find out which aspects a) contributes to the satisfaction of the experience and b) are relevant to transform tourists in *repeaters* in tourism sustainability.

The outline of the paper is as follows: the questionnaire is described in Section 2, the Results are shown in Section 3 and Conclusions follow at Section 4.

## 2. The Questionnaire

A questionnaire on eco-friendly accommodation propensity was posted on social networks (Instagram, Facebook, LinkedIn) between March and April 2022: 474 answers were in total collected, and 66 were given by people who already had chosen an eco-friendly accommodation in the past.

The questionnaire is divided in 4 sections, and we essentially report here the main questions which will be used in the analysis shown in Section 3. The first one deals with the general information of the individuals, such as age, gender, educational level, profession, and investigates if the individuals are studying (or have studied) on tourism-related disciplines, and if they are working (or have worked) in the tourism industry.

The second section regards the sustainability with a question on how much the individuals inquire themselves about the climate emergency and at which level they adopt a sustainable lifestyle. Both questions were recorded from 0 to 10, where 0 means “not at all” and 10 “completely”.

The third section is dedicated to the sustainability in tourism. Among all, we report here 2 questions. The first is a statement to which the respondent must indicate the level of agreement between 1 and 5, where 1 indicates “strongly disagree” and 5 “strongly agree: “Nowadays in Italy there is an emergency for the damages that the tourism may cause”. The second question is “How much are you attracted by a sustainable tourism? Give a value between 0 (not at all) to 10 (completely)”.

The fourth section is dedicated to the personal choices that individuals make on sustainable tourism. Individuals were asked if they would be willing to pay more for a sustainable tourism (yes, no), and if they consider, at the moment of planning a holiday, the problem of limiting the environmental damages (yes, no). The individuals who replayed “yes” to the former question, were asked if limiting the environmental damages is a need a) that always have, and it was constant through lifetime b) that always have, and it has grown a lot in the last years, or c) that was born in the last years. To those who search information, during the holiday planning, whether an accommodation facility is environmentally friendly, were asked: “In your opinion, when an accommodation facility is environmentally friendly?” It was possible to choose one or more items among, for example, “photovoltaic panels, bio architecture, plastic free, organic/veggie/vegan/zero km cuisine, waste sorting”. To those who had already used an eco-friendly accommodation in the past ( $n=66$ ), where asked the type of the accommodation facility, through a multiple answer question (hotel, B&B, camping, farmhouse, etc), if they think they have paid more if compared with a non-sustainable accommodation (yes, no, I don’t know), the satisfaction level of having used a sustainable accommodation (from 0 to 10, where 0 indicates “not at all” and 10 “completely satisfied”), and if they are going to book again in the future a sustainable accommodation (not at all, little, enough, much).

## 3. Results

The correlation between being attracted by a sustainable tourism and the degree of a sustainable adopted lifestyle is very highly correlated (0.96), based on the whole dataset ( $n=474$ ): it means that the

attention towards the tourism sustainability grows in people that are already generally involved in environmental sustainability.

A logistic regression analysis was performed, on the whole dataset, for the question “at the moment of planning a holiday, do you consider the problem of limiting the environmental damages? (yes, no)”. The results of the backward stepwise are shown in Table 1.

Table 1. Backward logistic regression for the question “at the moment of planning a holiday, do you consider the problem of limiting the environmental damages? (yes, no)”. Percentage of correctly classified cases: 77.6.

Parameters	Estimate	St. Error	p-value	OR
Age	0.020	0.008	0.013	1.020
Gender (f vs m)	0.906	0.247	<0.001	2.474
Working in tourism industry (yes vs no)	0.654	0.309	0.034	1.923
Inquire about the climate emergency damages that the tourism may cause (yes vs no)	0.459	0.069	<0.001	1.583
Attraction by sustainable tourism	0.362	0.109	<0.001	1.436
Willing to pay more (yes vs no)	1.844	0.388	<0.001	6.323
Constant	-10.258	1.226	<0.001	0.000

With respect to the demographical variables, the odds ratio shows that every unit increase in age is associated with a 2% increase in the odds of considering the problem of limiting damages, and the females have a 147.4% increase in the odds.

The personal experience of working (or have worked) in the tourism industry is associated with a 92.3% increase in the odds.

Considering the issue of sustainability, every unit increase in the level of how much the individuals inquire themselves about the climate emergency is associated with a 58.3% increase in the odds.

The next two variables belong to the section of the tourism sustainability: every unit increase in the level agreement with the statement “Nowadays in Italy there is an emergency for the damages that the tourism may cause” is associated with a 50.3% increase in the odds of considering the problem of limiting damages; moreover, every unit increase in the level of being attracted by sustainable tourism is associated with a 43.6% increase in the odds.

The last considered variable regards the economical aspect of the sustainable tourism, which is a very important issue beyond the personal belief: in fact, who wills to pay more for a sustainable tourism has a 532.5% increase in the odds.

The following two analysis were performed on the n=66 individuals that had already used an eco-friendly accommodation in the past.

The first regard the satisfaction level of having used a sustainable accommodation (Table 2), by a backward multiple regression. With respect to the demographical variables, the score of satisfaction decreases on average of 0.016 points for every unit increase in age, and it is larger of 0.798 points for females. The personal background of working (or have worked) in the tourism industry and of studying (or have studied) in tourism disciplines is associated with a decrease of about 0.72 points in the satisfaction.

Considering the issue of sustainable tourism, the satisfaction is positively related to the degree of being attracted by a sustainable tourism ( $\hat{b} = 0.767$ ), and negatively related to the need of limiting the environmental damages if it was born in the last years ( $\hat{b} = -0.743$ ), compared to when if it was present through lifetime.

The economical topic is crucial in this analysis as well, since the score of satisfaction of those tourists who would like to pay more for a sustainable tourism is 2.376 points higher.

The last two variables are concerned to the accommodation. Hotels are the only accommodation facility which remains significant in the model and is positively associate to satisfaction. For those who express that an accommodation facility is considered environmentally friendly if there is an organic/vegetarian/vegan/zero km cuisine, the score of satisfaction decreases of 0.582 points. Perhaps their expectations were not satisfied.

Table 2. Backward multiple regression of the level of satisfaction.  $R^2=0.513$ .

Parameters	Estimate	St. Error	p-value
Constant	1.165	1.391	0.406
Age	-0.016	0.007	0.039
Gender (f vs m)	0.798	0.258	0.003
Working in tourism industry (yes vs no)	-0.728	0.293	0.016
Studying in tourism disciplines (yes vs no)	-0.714	0.331	0.035
Attraction by sustainable tourism	0.767	0.126	<0.001
Limiting the environmental damages is a need: c) last years	-0.743	0.235	0.003
Willing to pay more (yes vs no)	2.376	0.482	<0.001
Eco-friendly: cuisine	-0.582	0.249	0.023
Hotel	0.491	0.228	0.036

The second analysis regards the will of booking again in the future a sustainable accommodation (Table 3), by a backward logistic regression. It is clear that, what really matters to turn tourists into *repeaters* in sustainable tourism is, first of all, that the tourists must already have adopted a sustainable lifestyle, and that the willing to pay more for a sustainable facility.

Table 3. Backward logistic regression of the will of booking again in the future a sustainable accommodation. Percentage of correctly classified cases: 84.6.

Parameters	Estimate	St. Error	p-value	OR
Sustainability	0.915	0.367	0.013	2.497
Willing to pay more (yes vs no)	5.494	1.641	<0.001	243.265
Constant	-10.395	3.802	0.006	0.000

## 4. Conclusions

In conclusion, the results presented here show that those individuals with a greater awareness of what sustainability means, with a concomitant sustainable lifestyle, are more inclined and even satisfied to choose "eco-friendly" hotels to spend their holidays even at the cost of paying more.

The greater awareness is also confirmed by the results that emerged with respect to posing the problem of making "tourist" choices that limit the damage to the environment. In fact, greater attention to these environmental aspects in tourist choices is guaranteed for "insiders" or for those who work in the tourism sector, for those who are informed about climate change, which represents one of the environmental problems with the greatest global impact and is increasingly evident in everyday life, for those who are aware that tourism, as a demographic pressure, causes damage to the surrounding environment. In terms of structural variables, this awareness is more pronounced among women and with increasing age.

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