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Does Sustainable Certification Knowledge Influence Tourist Behavior?

by

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Abstract

In this study, the investigators use scores from the Tourist Ecological Orientation (TEO) Scale (Uriely, Reichel & Shani, 2007) of Costa Rica visitors to understand how their ecological orientation and interest in ecological practices influence accommodation and destination site choices. Results from this study were intended to be used to inform professionals in the tourism industry on how they might best develop their tourism sites, policies and programs according to the ecological orientation of the visitors. Based on the findings from this study, however, it seems that the Tourist Ecological Orientation Score derived by Uriely, Reichel and Shani (2007) is not appropriate for differentiating tourist behaviors. As such, it is not recommended for use in developing sites, policies and programs or otherwise marketing them to tourists.

Introduction

As the tourist's environmental consciousness has risen, so has Ecotourism as a form of travel. Tourists continue to seek exotic travel destinations and adventures while at the same time many are concerned with being socially and environmentally mindful. Costa Rica, with its political stability and biodiversity of natural resources, has been a leader in Ecotourism (Dasenbrock, 2002). Bringing in \$1 billion a year, Costa Rica's tourism industry plays an important part in the country's economy (Dulude, 2000). With a Tourism Sustainable Certification program in place, Costa Rica encourages its tourist industry to be environmentally sensitive. However, few studies have centered on the tourist sensitivity to the environment and their decision making process to eco-friendly destinations and accommodations.

Literature Review

One of the fastest growing sectors of tourism is Ecotourism (Eagan, 2001). According to The International Ecotourism Society (TIES), ecotourism is defined as "responsible travel to natural areas that conserves the environment and improves the well-being of local people" (TIES, 2006). However, what constitutes ecotourism or the promotion of green values can be misleading. As ecotourism has gained popularity, greenwashing, "businesses that use 'eco' language in their marketing but do not fit any of the criteria of

ecotourism" (Honey, 2006, p. 881) has become a challenge to the industry. In addition, research indicates "that up to half of the tourism revenue entering the developing world reverts to the developed world in profits earned by foreign-owned businesses, promotional spending aboard or payments for labor and goods (Mastny, 2001, p. 10). In an effort to aid in the protection of its natural resources and control the misuse of ecotourism as a label, Costa Rica established the Certification for Sustainable Tourism (CST) program in 1997. This voluntary program "seeks to categorize and certify each tourism company according to the degree to which its operations comply to a model of sustainability (www.tourismo-sostenible.co.cr/EN/sobreCST/about-cst.shtml retrieved 11/12/2008)." Costa Rica, through its CST program, strives to confirm for visitors that sustainable environmental practices are in place during their travels (Riveria, 2002). The CST program evaluates the physical-biological parameters, infrastructure and services, external clients & socio-economic environment, rating the tourism company with a five-tiered system in which a leaf recognizes each tier. The more leaves, the more sustainable the company.

While the tourism industry has wrestled with sustainable certification, researchers have begun to examine the ecological attitude and orientation of the tourist (Weaver, 2002; Ryan, Hughes, Chirgwin, 2000; Choi & Sirakay, 2005, Uriely, Reichel & Shani, 2007). In particular, Uriely, Reichel and Shani (2007) attempt to measure the ecological orientation of tourists, that is, how

their environmental attitudes and values translate into preferences to their destination choices. The investigators developed a scale to measure tourist ecological orientation (TEO) which ultimately revealed two ecological orientation dimensions: destination oriented and visitor oriented (Uriely et. al. 2007). The destination oriented dimension consists of characteristics related to the management practices of the destination. The scale items within this dimension include: adherence to environmental rules and regulations, environmental sensitivity, the hotel/site compatible with the natural landscape, the provision of education to preserving the environment, site management concerned with the quality of life of local residents, employment of local residents, provision of information on the quality of the surrounding environment, employment of the people with disabilities or the elderly, and recycling program.” (Uriely, Reichel & Shani, 2007).

The visitor-oriented dimension consists of “site features or characteristics that are perceived as having a direct effect on the visitor and the on-site experience” (Uriely, Reichel & Shani, 2007, p. 172). In their application of the scale, the visitor-oriented factor scored higher, meaning visitors seemed to appreciate ecological features meeting their personal needs first and then later they might consider the destination-oriented features (Uriely, Reichel & Shani, 2007).

In order for results from the Tourist Ecological Orientation Scale to influence management practices, a connection must be established between TEO scores and tourist behaviors. Research in tourism has provided empirical evidence of tourist satisfaction as a strong predictor of their intention to revisit, as well as recommend, the destination to others (Baker & Crompton, 2000; Yoon & Uysal, 2005; Chi & Qu, 2008). Additionally, the decision process of tourists has been found to be affected by personal characteristics, such as socio-demographic and economic restrictions and how much a tourist has to spend (Plog, 2001; Bieger & Laesser, 2004). As a result, tourism literature has explored both tourist satisfaction and the decision making process. However, how the ecological orientation of the tourist impact their decision making for considering accommodations or destinations based on sustainable practices has not been previously studied.

In this study, the investigators use scores from the Tourist Ecological Orientation (TEO) Scale (Uriely, Reichel & Shani, 2007) of Costa Rica visitors to understand how their ecological orientation and interests in ecological practices influence their tourist behaviors.

Methodology

While participating in a study abroad program to Costa Rica, undergraduate students collected data from various tourist accommodations and destinations. These sites included accommodations participating in the CST program (CST ratings ranging from 1 to 3 leaves) and commonly visited tourist destinations (i.e. La Fortuna Waterfall, Arenal Volcano, Manuel Antonio National Park). Data were collected from a convenience sample of 118 visitors to Costa Rica. People at the aforementioned destination sites as well as at the San Jose airport were approached, asked if they were visitors to Costa Rica and, if so, would they be willing to participate in a fifteen minute survey. Two surveys were unusable, resulting in 116 respondents.

The survey consisted of five sections. In the first, respondents were asked how important each of the variables from the TEO scale (Uriely, Reichel & Shani, 2007) was in choosing a tourist site. The second section repeated the questions but asked how important the variables were in choosing accommodations. Responses to the TEO questions were then summed to provide an overall TEO scale for each respondent for both accommodations and destination sites. The fourth section asked about tourist behaviors when visiting a natural area and the fifth section asked about experience type preferences, such as experiences with nature or relation.

Findings

Characteristics of Respondents

Respondents ranged in age from 18-67 (24% between age 20-29) and 52% were female. One third (35%) of those surveyed traveled with one other person while about seventy percent of the participants did not travel with children and approximately 16.8% traveled with two children. About three-quarters of the respondents held a college degree or above (36% had a four year college degree, 28% held a master’s degree & 10% had a doctorate degree).

Ecologically-based Preferences

Using a 5 point Likert-like scale, respondents were asked how important various factors were when choosing either a tourist destination site (e.g. Manuel Antonio National Park) or when choosing accommodations (e.g. Eco-lodge). Responses are summarized in Tables 1 and 2. When asked about choosing a tourist destination site, participants indicated that a site utilizing responsible and honest marketing was most important (44% important and 25% very important).

Table 1: How important some experiences are when traveling to sites

How important were each of the following in choosing a tourist site? The site...	Not an important factor	A less important factor	A somewhat important factor	An important factor	A very important factor
Uses responsible and honest marketing	6%	10.3%	13.8%	44.8%	25%
Is built in a way compatible with the natural landscape	2.6%	2.6%	14.7%	49.1%	31%
Is a fair employer	4.3%	11.3%	13.9%	40%	30.4%
Educates to preserve the quality of the environment	1.7%	3.4%	19%	31%	44.8%
Cares about the quality of life of local residents	2.6%	.9%	13.9%	40.9%	41.7%
Supplies health food in the restaurants	5.2%	19%	23.3%	33.6%	19%
Provides information about the nature and landscape of the area	2.6%	6%	21.6%	35.3%	34.5%
Strictly adheres to environmental rules and regulations	1.7%	3.5%	12.2%	33.9%	48.7%
Controls the number of visitors	4.4%	10.5%	27.2%	30.7%	27.2%
Employs local residents	2.6%	7.8%	20.7%	38.8%	30.2%
Provides information about the quality of the local environment	2.6%	9.5%	30.2%	32.8%	25%
Is environmentally sensitive	1.7%	.9%	17.2%	34.5%	45.7%
Employs the handicapped or the elderly	7%	21.1%	36.8%	22.8%	12.3%
Recycles waste	1.7%	4.3%	23.3%	29.3%	41.4%
Recycles paper	1.7%	4.3%	20.7%	31%	42.2%

Most participants also indicated that the site should be built in a way compatible with the natural landscape (49% important and 31% very important). Additionally, they indicated it was important that the site care about the quality of life of local residents (40% important and 41% very important). Overwhelmingly, the participants thought that it was important for a tourist site to strictly adhere to environmental rules and regulations (33% important and 48% very important).

When asked about choosing an accommodation, most study participants indicated that it was important the accommodation be environmentally sensitive (40%

important and 43% very important). Many participants indicated it is important the accommodation be built in a way compatible with the natural landscape (50% important and 26% very important). Education about preserving the quality of the environment was also important (38% important and 35% very important), as well as being a fair employer (43% important and 33% very important). In addition, the participants indicated that caring about the quality of life of local residents was important (42% important and 35% very important). Interestingly, though, employment of people with disabilities was not as important to the participants (23% important and 14% very important).

The Importance of Tourism Site Practices

When choosing a tourist site, the respondents' top five included the opportunity to see a unique environment (87%), strictly adheres to environmental rules and regulations (82.6%), cares about the quality of life of local residents (82.6%), is environmentally sensitive (80.2%) and the opportunity to see unique animals (80.2%). The least five important factors in choosing a site are employment the people with disabilities or the elderly (35.1), admission price at the tourist site (40%), possesses a sustainable tourism certification (48.6%), supplies health food in the restaurants (52.6%) and provides information about the quality of the local environment (57.8%). See Table 1.

When choosing an accommodation/hotel, the respondents indicated environmentally sensitive (84%), is close to the tourist sites we plan to visit (80.1%), cares about the quality of life of local residents (78.6), is built in a way compatible with the natural landscape (77.7%) and is a fair employer (77.7%). The five factors least important are employs people with disabilities or the elderly (38.1%), the opportunity to see unique plants (49.1%), is locally owned and operated (53.6%), supplies health food in the restaurants (53.6%) and possess a sustainable tourism certificate (54.1%).

Confirmation of the Tourist Ecological Orientation Scale

The Cronbach alpha coefficient was initially .891 for the fifteen item scale when used in a destination site

Table 2: How important some experiences are when choosing accommodations?

How important were each of the following in choosing accommodations?	Not an important factor	A less important factor	A somewhat important factor	An important factor	A very important factor
The hotel...					
Uses responsible and honest marketing	5.4%	6.3%	19.6%	34.8%	33.9%
Is built in a way compatible with the natural landscape	1.8%	3.6%	17%	50.9%	26.8%
Is a fair employer	2.7%	7.1%	12.5%	43.8%	33.9%
Educates to preserve the quality of the environment	2.7%	4.5%	18.8%	38.4%	35.7%
Cares about the quality of life of local residents	2.7%	1.8%	17%	42.9%	35.7%
Supplies health food in the restaurants	4.5%	12.5%	29.5%	24.1%	29.5%
Provides information about the nature and landscape of the area	3.6%	7.1%	23.2%	33.9%	32.1%
Strictly adheres to environmental rules and regulations	1.8%	2.7%	2.5%	27.7%	47.3%
Employs local residents	4.5%	5.4%	16.1%	42%	32.1%
Provides information about the quality of the local environment	6.4%	8.2%	24.5%	36.4%	24.5%
Is environmentally sensitive	1.8%	3.6%	10.7%	40.2%	43.8%
Employs the handicapped or the elderly	11.8%	15.5%	34.5%	23.6%	14.5%
Recycles waste	3.6%	3.6%	18.8%	35.7%	38.4%
Recycles paper	4.5%	5.4%	14.3%	33.9%	42%

context and .912 when used in an accommodation context. When one of the fifteen items (uses responsible and honest marketing) was dropped from each scale after considering the corrected item-total correlation, the resulting fourteen item scale yielded a Cronbach alpha coefficient of .895 for the scale in a destination site context and .913 for the scale in an accommodation context. Although the difference was not appreciable, the fourteen item scale is recommended for improved parsimony. To determine the utility of the Tourist Ecological Orientation scale for tourists when choosing accommodations or site destinations to visit, a principal component factor analysis with Varimax rotation was then undertaken using the remaining fourteen items. Although the authors of the TEO scale determined that the scale included two dimensions, one that is destination oriented and one that is visitor oriented, results from the screeplot indicated that in each case, only one factor clearly emerged in this study. This one factor was found to explain 43.0% of the variance in the destination site context and 49.7% in the accommodation context,

Testing the Relationship between TEO Score and Tourism Behaviors

First, a total TEO score was obtained for each respondent using the sum of the remaining fourteen items. A series of correlations were then used to determine if there is a relationship between the ecological orientation of respondents and various tourist behaviors. At an alpha level of .05, four of the six respondent behaviors were not found to be correlated to TEO score: "Hire a guide," "Visit the site without a guide," "Take photographs," and "Take a natural souvenir (flower, leaf, shell, etc...)." However, respondents with higher TEO scores, suggesting a stronger environmental affinity, were found to be positively correlated with, and thus significantly more likely to, "Purchase a natural souvenir (flower, leaf, shell, etc...)" (destination site: $r=.199$, $n=111$, $p=.036$; accommodation: $r=.221$, $n=11$, $p=.016$) and "Read interpretive signs" (destination site: $r=.232$, $n=108$, $p=.021$, accommodation: $r=.339$, $n=107$, $p=.000$). The correlations were for the most part relatively small, i.e. less than .232 (Cohen, 1988), with only the relationship between the TEO accommodation-based score indicating a reasonable correlation with the tourism behavior of reading interpreting signs ($r=.339$).

Discussion

The purpose of this study was to determine if one's ecological orientation, based on the Tourist Ecological Orientation scale, is related to various

behaviors. The results of which would be valuable for managers of tourism accommodations and destination sites. However, results from the study indicate that TEO scores are not appropriate for differentiating tourist behavior. A possible explanation for these findings is that there was very little variation among the TEO scores and visitor behaviors of respondents in this study. Without a reasonable amount of variation, it is difficult for t-tests to indicate significant differences.

An alternative explanation is that a tourist's ecological orientation is not related to his or her tourist behaviors. This explanation is reported by additional findings from the study. Although respondents overwhelmingly indicated that it was important for their accommodations or destination sites to be environmentally sensitive, many respondents also indicated they were unaware of Costa Rica's sustainable tourism certification.

Collectively, it appears that while tourists have a high affinity for many ecologically sound practices, the presence or absence of these practices does not appear to influence the majority of tourist behaviors studied here. The exception to this was that tourists who applied an ecological orientation to choosing their accommodations had a relatively strong correlation to being likely to read interpretive signs. As such, tourist accommodations for hotels interested in marketing to tourists with an ecological orientation should incorporate interpretive signage at their hotel, as well as provide information on nearby attractions with interpretive provisions, including programs and facilities. In addition, it might benefit these accommodations to support local initiatives that provide interpretive information, such as signs to interpret culturally, historically and environmentally significant features and landmarks in the same area and pamphlets to promote locally available self-guided walking tours.

Based on the findings from this study, using either explanation, it seems that the Tourist Ecological Orientation Score derived by Uriely, et. al. (2007) is only mildly appropriate for differentiating tourist behaviors. As such, it has limited use programs or otherwise marketing them to tourists besides those mentioned previously. However, given the high proclivity of respondents to recognize the importance of ecologically sound practices when choosing their tourism accommodations and destination sites, it is critical for these tourism-related companies to maintain ecologically sound practices, as well as to include their use within the company's marketing mix.

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