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# **Exploring Hard and Soft Domestic Ecotourists Preferences** towards Selected Eco-friendly Attributes of Ecolodges in Kinabalu Park, Sabah

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## **ABSTRACT**

The emergence of the term ecotourism in the 1980's has brought forward numerous developments in ecotourism industry including the discovery of special niche segments, specifically the 'ecotourists', as well as specialist accommodation type, specifically the 'ecolodges'. Although a number of studies have been published with regards to ecotourists' traits and ecolodges guideline, limited information is available on the domestic ecotourists' preferences towards the characteristics that ecolodges embody. Hence, this study is an attempt to address this deficiency by looking at the preferences of two contrasting ecotourist segments, namely, hard and soft domestic ecotourists in Kinabalu Park, a World Heritage Area in Sabah, Malaysia. A discriminant analysis was performed using 403 samples in Kinabalu Park, and it revealed two ecotourist segments with significant differences of preferences towards six constructs of ecolodges. It was also found that hard domestic ecotourists displayed significant differences in preferring eco-friendly attributes as compared to the soft domestic ecotourists on the variables measuring nature based attractions, services and comfort, location and type of accommodation. Soft domestic ecotourists tend to resemble the mass tourists as they placed importance towards services and comfort but disliked being in remote locations. The results of this study demonstrate that ecotourist segments deserve specific considerations by ecotourism managers to cater accommodation packages based on their specific preferences in order to ensure a quality ecotourism experience.

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## INTRODUCTION

Since their emergence in 1990's, ecolodges have brought success to a few noted ecotourism areas in the world that portray a model of successful ecolodge management, as observed in cases in South Africa. Australia, New Zealand and the Asia-Pacific regions (Buckley, 2003). The users of ecolodges are usually ecotourists, who are usually more apt to purchase eco-friendly products while travelling. This suggests the realization of why it is crucial to uncover information in regard with the ecotourists' needs and preferences on ecolodges. The fact that a few studies have profiled the distinctiveness of ecolodge patrons (Kwan et al., 2008) makes it more crucial to identify what these special market segments really represent, especially in developing countries such as Malaysia that rely heavily on promoting nature based tourism.

The ecolodge, which surfaced around the 1990's, is perhaps the most distinctive component of the specialized ecotourism industry (Weaver, 2001). An ecolodge can be said to be the product of ecotourism, which is grounded by the principles of ecotourism in terms of its compliance to the three integral components of ecotourism: nature based, learning and interpretation, and socio-economic sustainability. What makes an ecolodge important is its ability to provide a way for ecotourism to fully implement the criteria and principles of ecotourism, as accommodation is a crucial necessity in every ecotourism site. Like ecotourism, ecolodges have developed over the years in response partly to the

destructions made by mass conventional hotels that exist primarily all over the world (Timothy & Teye, 2009).

Russell et al. (1995) describe the ecolodge as a nature dependent lodge that meets the principles of ecotourism. Similarly, this definition is strongly attributed by Mehta et al. (2002), who state that an ecolodge must exemplify the three principles of ecotourism, which are nature conservation, local people's benefits and interpretive components. Furthermore, Gardner (2001) generally presumes the ecolodge as a small lodge designed to blend with the cultural and natural environments and is located within or adjacent to a highly protected area. Additionally, an ecolodge also utilizes the green technology in its management and operations. Eco-travel is usually related to ecolodges as they are presumably one of the ways for tourists to enhance the "green tourist" within them.

## ECOTOURISTS AND ECOLODGES

Ecotourists usually possess distinctive traits or positive behaviours such as their involvement in nature based areas, their tendency to learn more about nature and their usual willingness to be more sustainable in socially and environmentally manners (Weaver & Lawton, 2002). These traits are associated with the three main components of ecotourism, which are nature based, learning and educational, and the sustainability component (Blamey, 1997; Eagles *et al.*, 2002). Hence, an environmentally conscious attitude towards the environment or any object will usually

produce a positive evaluation such as agreement towards a statement.

Environmentally conscious tourists are usually associated as ecotourist in the ecotourism world. The terminology of hardsoft ecotourists is contributed theoretically by the works of Laarman and Durst (1987) and proven empirically by the work of Weaver and Lawton (2002) who manifested the three segments of hard, structured and soft ecotourists. Similar studies which look into ecotourist characteristics empirically have also been done by, among other, Beh and Bruyere (2007), Hvenegaard (2002) and Palacio and McCool (1997). There seemS to be certain pattern of traits deriving from the hard end of the ecotourism spectrum to the soft end of the ecotourism spectrum.

However, unlike ecotourists, ecolodges seem to be a highly manifested subject in ecotourism. Nonetheless, the amount of research on ecolodges is still lacking as compared to other conventional accommodations such as hotels and motels. This is because, although accommodations, such as eco-resorts are considered important, it is not substantial enough to override the motivation for visit (Fennel, 2008). This notion is supported by Wight (1997), who states that accommodation is merely an enabler to overall accommodation experience, suggesting that the tourists select the experience first, and then only select the accommodation.

Furthermore, the academic literature on ecolodges mentions that the references on this subject matter are still limited (Kwan *et al.*, 2008). Even though previous research

mentions specialist accommodations and owner operators of these types of accommodation, related resources on ecolodges are still scarce (Wight, 1997). Hence, studies on ecolodges at present are important because there is a need for the tourism industry and all personnel involved to realize that ecolodges are able to foster long-term beneficial impacts on the ecotourism industry.

Most studies on ecolodges focus on assessing various attributes of the accommodation. However, studies concerning the ecolodges and owneroperators are still limited (Wight, 1997). In a primary study, which used both hotel and ecolodge attributes, Kwan et al. (2008) used 41 attributes to measure the Importance-Performance assessment, and found that the five highest attributes were associated with three service features, which were staff's friendliness, value for money and facility sanitation, and two environmental features that were rated highly, namely, scenery and the quality of the environment. It was reported that one of the lowest ranked attributes was the availability of onsite entertainment, which indicated that the ecolodge patrons did not expect entertainment, a characteristic which is to be expected in ecotourism.

In addition, Osland and Mackoy (2004) used open-ended questions to determine which lodging attributes were the most important in choosing lodging. The researchers found that there were two most frequently mentioned attributes: proximity to birds and cost. Similar studies

also reported on the importance of location (Haig & McIntyre, 2002) and price (Pearce & Wilson, 1995). Moreover, the study conducted by Osland and Mackoy (2004) was notably an interesting one, as it used two methods; the first method involved members from the American Birding Association (ABA) which was employed to list factors pertaining to the attributes of lodging selection, while the second method involved an observation on the ecotourists in the ecolodges of Mexico, Costa Rica and Ecuador. The methods provided responses from various ecotourists' backgrounds (i.e. birders to common ecotourists in the ecolodges) that subsequently revealed the top two attributes between both groups of participants, which were the location of natural area and the price.

Chan and Baum (2008) conducted in-depth interviews with 29 European ecotourists in Sukau Rainforest Lodge, focusing on questions with regards to negative and positive experiences of ecotourism. The study discovered that there were three major themes for the responses towards the ecotourism experiences, which were seeing wildlife in their natural habitats, basic accommodation, and learning and acquiring knowledge. This study used the expressions of experience and found six expressive dimensions: hedonism, interaction, novelty, comfort, stimulation and personal safety. These dimensions were regarded as positive experiences. The conclusion for this study suggests that ecotourism experience can be expressed in expressive dimensions as reported,

which are associated with affection and functionality in experience.

Generally, the findings from the ecolodge studies are related to the core ecotourism principles, and the mentioned studies largely contribute to the service and facility components. Notably, because the nature of an ecolodge as an accommodation is to provide service and hospitality, it is therefore understandable that a huge part of it concentrates on the service features rather than the ecotourism core principles. It is perhaps the most understudied area on ecolodges, i.e. the ecolodge principles. However, it is also understood that getting the responses on ecolodge principles poses limitations in terms of the respondents' knowledge. Firstly, it has been reported that even ecotourists and other types of tourists have limited knowledge of ecotourism (Wurzinger & Johansson, 2006). Secondly, even ecolodge patrons have narrow knowledge on the functions of ecolodges (Kwan et al., 2008). Hence, to find facts on contributing crucial information in improving the ecolodge industry in ecotourism, the participants involved may need to have sound knowledge in ecotourism and ecolodges.

Indeed, the identification of the participants is important before obtaining useful information on the subject of ecolodge. Although there may be no harm in obtaining direct information on a group of visitors on the subject of ecolodges, there are certain limitations on the information obtained, which may not be reliable. Firstly, visitors as tourists, may be subjected to the concept

of a "dualistic nature" (Weaver, 2001); for example in which they may change from being ecotourists to a mass tourists, or vice versa. Hence, the information given by them may be influenced by their present nature at that point of time. Secondly, we have no indication at all on their knowledge on what ecolodges are and their basic principles. Hence, they may subconsciously answer question based on what they feel is appropriate to be answered, not based on what they know. Furthermore, they may also be inclined to subconsciously answer questions which do not reflect them entirely as they are obliged to meet certain perceived social responsibilities.

Having this in mind, the current study was designed in such way that the participants were segmented into two contrasting ecotourist groups; the hard domestics and soft domestics. The hard domestics refer to the hard ecotourists inclined to the hard end of the ecotourism spectrum (Weaver & Lawton, 2002) while the soft domestics refer to the ecotourists who are inclined towards the soft end or mass ecotourism (Weaver & Lawton, 2002). This priory identification allows for countering the limitations of having a "dualistic nature" within the participants themselves, which further explores whether each contrasting groups display preferences that are supposedly demonstrated.

## STUDY OBJECTIVE

The purpose of this paper is to identify whether different ecotourist segments differ in their preferences on the characteristics of ecolodge. This is an important piece of information to show that ecotourists should not be assumed to be homogenous not only in their travel characteristics, but in their selection towards ecotourism products as well, notably the ecolodges. It further substantiates that the hard-soft ecotourism continuum can be incorporated into the selection of ecotourism accommodation attributes, which in turn, allows for packaging of different products based on different ecotourist segments.

#### **METHODOLOGY**

Study Site and Respondents

A self administered questionnaire was given to 403 participants visiting Kinabalu National Park in Sabah, Malaysia. Kinabalu National Park is a World Heritage Area in Sabah, Borneo, famously known for Mount Kinabalu, which has a vast and endemic species of flora and fauna. It is located in Sundaland, which comprises one of the biodiversity hotspots in the world (Myers et al., 2000). The respondents comprised of two identified domestic ecotourist segments which were classified as hard and soft domestics. Initially, the segments were derived using a Discriminant Analysis that had successfully classified 158 hard domestics (39.2%) and 134 soft ecotourists (33.3%) as well as 111 participants who were classified as 'other segments' (27.5%). For the purpose of this paper, the focus lies on only the hard and soft domestic segments.

### Measures

The instrument used for this study has three sections (A, B and C) which measured different constructs. The first section is used to determine the three segments of hard domestics, other ecotourists and soft domestic ecotourists. The first section consisted of 33 items which segment the ecotourists as seen from their psychological characteristics towards ecotourism principles. The characteristics of the ecotourists can be associated with their associations towards ecotourism experiences, which include their general behaviour towards ecotourism principles, anthropocentrism, travel arrangements, trip preferences, services priorities, and activities. The concept of segmentation in this study is applied according to the psychographic segmentation concept, which includes a person's lifestyle, attitudes, opinions and personalities (Horner & Swarbrooke, 2007). Subsequently, the two most contrasting segments of hard domestic ecotourists and soft domestic ecotourists were then isolated and explored individually.

Section B of the instrument measures the attributes of the ecolodges. The questionnaire was constructed based on the ecotourism principles, which comprised of nature based attractions, local community sustainability and attributes pertaining to surrounding setting and landscape, structure and material, as well as the locality of the accommodation. The two other attributes include the type of accommodation preferred, as well as the services and comfort of the accommodation. A total of 15

items were used to explore the ecotourists' preferences, which include nature based attractions ( $\alpha = 0.74$ , 3 items), services and comfort ( $\alpha = 0.75$ , 2 items), location ( $\alpha = 0.67$ , 2 items), surrounding and landscaping ( $\alpha = 0.77$ , 3 items), structure and material ( $\alpha = 0.81$ , 3 items) and the preferred types of accommodation ( $\alpha = 0.48$ , 2 items). Section C of the questionnaire measures the general demographic characteristics of the respondents.

#### RESULTS

Hard and Soft Domestic Ecotourist Segments

The ecotourist groups in this study were identified by their responses towards three different statements that were initially asked in the Section A of the questionnaire. Each statement reflected different traits which characterized three different ecotourist types. Their original responses were theh statements reflects different traits which characterized three different ecotourists types. Then used to cross validate with their responses towards several constructs involving their ecotourism experiences. Although initially the discriminant analysis derived three groups, the hard and soft ecotourist groups were isolated in this study based on cross validations of the discriminant analysis (Table 1). The cross validation was done to validate the predicted groups by splitting the sample randomly into two sub-samples. The sub-samples were then used for deriving the functions and classification trial (Klecka, 1980). From the results of the cross validations.

TABLE 1	
Cross validations of the ecotourist	groups

		Egatouriat tema	Predicted Group Membership			T-4-1	
		Ecotourist type	Hard	Other	Soft	— Total	
Original	Count	Hard	88	31	36	155	
		Other	53	65	55	173	
		Soft	17	15	43	75	
	%	Hard	56.8	20.0	23.2	100.0	
		Other	30.6	37.6	31.8	100.0	
		Soft	22.7	20.0	57.3	100.0	
Cross-validated	Count	Hard	78	39	38	155	
		Other	65	49	59	173	
		Soft	19	22	34	75	
	%	Hard	50.3	25.2	24.5	100.0	
		Other	37.6	28.3	34.1	100.0	
		Soft	25.3	29.3	45.3	100.0	

Table 2 shows the final number of the cross validated ecotourist groups obtained from the Discriminant Analysis.

TABLE 2 Ecotourist segments obtained from the discriminant analysis

Ecotourist type	Frequency	Percentage (%)
Hard	158	39.2
Other	111	27.5
Soft	134	33.3
Total	403	100

Ecotourists Preferences towards Ecolodge Attributes

The results for the analysis of variance with Tukey post-hoc are shown in Table 3. The attributes for nature based attractions were measured using three items which reflected the closeness with nature. There were significant differences of the means found between the hard domestic ecotourists and

the soft domestic ecotourists ( $\underline{F} = 7.24$ , p = .001). It was observed that the hard domestic ecotourists ( $\underline{M} = 4.17$ ) displayed a higher tendency to prefer nature-based attributes during their stay in an accommodation as compared to the soft domestic ecotourists ( $\underline{M} = 4.05$ ).

Services and comfort were measured by the importance of services and comfort the tourists would like to have during their stay. Hard domestic ecotourists ( $\underline{M} = 2.90$ ) rated services and comfort significantly lower than soft domestic ecotourists (F = 10.127, p = .001). The soft domestic ecotourists placed the importance of having air-conditioned rooms higher than the hard domestic ecotourists. They also had higher ratings on the attributes measuring luxurious items in the accommodation, whereas the hard domestic ecotourists ( $\underline{M} = 2.82$ ) rated them lower than the former segment.

TABLE 3 A comparison of the ecotourists' preferences on the ecolodge attributes

Ecolodges'		Ecotourist type <sup>1</sup>				
attribute construct	Items	Hard	Other group	Soft	F	p-value
Nature-based attractions	I enjoy activities in the natural setting of the rainforest.	4.17ª	3.88 <sup>b</sup>	4.05b	7.24	.001*
	I feel pleasant if I peek outside my room window to see that I am surrounded with lush green trees.	4.06ª	3.76 <sup>bc</sup>	3.73 <sup>bc</sup>	9.15	.001*
	It is important that the hotel I choose makes me feel close to nature.	4.23 <sup>b</sup>	4.04ª	4.29 <sup>b</sup>	3.78	.024*
		$4.20^{ac}$	$3.84^{b}$	$4.14^{ac}$	8.14	.001*
Services and comfort		2.90a	3.32 <sup>b</sup>	3.29 <sup>b</sup>	10.127	.001*
	It is important for me that the place I am staying provides air conditioning rather than ceiling fan.	2.97ª	3.45 <sup>bc</sup>	3.43 <sup>bc</sup>	11.746	.001*
	My ideal hotel would have luxurious king size bed with bathtubs, satellite TV and internet access.	2.82ª	3.19 <sup>bc</sup>	3.16 <sup>bc</sup>	5.341	.005*
Location		$3.87^{a}$	3.54 <sup>bc</sup>	3.45 <sup>bc</sup>	12.010	.001*
	I do not mind if the hotel I choose is located far from the city.	3.93ª	3.59bc	3.60 <sup>bc</sup>	6.97	.001*
	I would not mind staying in accommodation located deep inside the rainforest.	3.82ª	3.48 <sup>bc</sup>	3.30 <sup>bc</sup>	11.544	.001*
Surrounding and		4.12 <sup>bc</sup>	3.83ª	4.06bc	7.95	.001*
Landscaping	I like if the hotel I am staying at harmonizes with the natural setting of the place.	4.13 <sup>ab</sup>	3.84°	4.07 <sup>ab</sup>	5.716	.004*
	I would choose a hotel that makes me feel at peace with nature.	4.19 <sup>ab</sup>	3.87°	4.17 <sup>ab</sup>	7.307	.001*
	Being able to connect with nature spiritually is a valuable experience for me during travel.	4.03ª	3.77 <sup>b</sup>	3.96	3.671	.026*

cont'd Table 3

Structure and Material		4.06ª	3.78 <sup>b</sup>	3.98ª	7.40	.001*
	I like staying in hotels that uses natural colours to blend with the natural environment.	4.00 <sup>ab</sup>	3.73°	4.00 <sup>ab</sup>	4.93	.008*
	I like staying in hotels that was designed with cultural elements.	3.94 <sup>ab</sup>	3.68°	3.94 <sup>ab</sup>	4.57	.011*
	Building accommodation should use environment-friendly materials.	4.11ª	3.79 <sup>b</sup>	3.92 <sup>b</sup>	6.443	.002*
	Preserving the environment should be considered in initial planning of hotels.	4.18 <sup>a</sup>	3.90 <sup>b</sup>	4.08	4.537	.011*
Type 2		3.79ª	$3.50^{bc}$	$3.58^{bc}$	6.24	.002*
	I prefer camping as I want to experience nature at its best.	3.68 <sup>a</sup>	3.48 <sup>b</sup>	3.41 <sup>b</sup>	3.82	.023*
	I prefer staying in wooden lodge that has natural elements.	3.89ª	3.51 <sup>b</sup>	3.75 <sup>b</sup>	6.435	.002*

#### Note:

The attribute measuring the location of accommodation was created to find out the preferences of the ecotourists towards the position of the accommodation from the intended ecotourism place. It was found that the hard domestic ecotourists (M = 3.87) scored significantly higher than the soft domestic counterparts. The hard domestic ecotourists do not mind whether the accommodation is located deep in the forest or far away from the city. This result was supported as the hard domestics tended to choose the 'hard type of accommodation spectrum' due to their desire to be absorbed in the tranquillity of the forest. Furthermore, they would not mind travelling on rough

terrains to reach secluded areas as they normally preferred this 'hard' type of experience in ecotourism.

No further differences were reported between the hard and soft domestic ecotourists towards the attributes measuring surrounding and landscaping; however, the hard domestics had a higher rating towards "being able to connect with nature spiritually". Structure and material attributes were measured using four items, which included the usage of natural colours, incorporation of cultural elements in design, usage of environmental-friendly material, and preservation of environment in initial planning of accommodation. As

<sup>&</sup>lt;sup>1</sup>Cell entries are means based on a five-point Likert scale; 1 = Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree,

<sup>5=</sup>Strongly Agree. Means with different superscripts indicate \*significant differences at p < .05.

<sup>&</sup>lt;sup>2</sup> Interpreting the superscripts example: There is a significant difference in the means for the "type" of accommodation between the hard and soft ecotourists.

expected, the hard domestic ecotourists displayed a higher tendency to agree in the usage of natural colours and the usage of environmental-friendly materials to build the accommodation, as compared to the soft ecotourists.

The attribute for the types of accommodation was measured by using two items, which captured the types of accommodation preferred by the ecotourists. The items measured their preferences for the hard type of accommodation (i.e. camping) and their preference to stay in an accommodation that reflects natural elements. The hard domestic ecotourists were highly agreeable on the types of accommodation that reflected rustic or primitive elements. In particular, they preferred camping as they wanted to experience nature at its best compared to the soft domestics (F = 3.82, p = .023) who preferred a more comfortable type of accommodation.

## Respondent's General Characteristics

The highest percentage of the domestic ecotourists age was between 21-30 years old, which accounted for almost half of the percentages (see Table 4). The figure seems to drop lower consecutively through the age group with respondents aged over 50 year old ranking in the least percentages, with 3.7%. In terms of gender, there seemed to be an equal proportion of the male and female respondents in this study. The equal proportions of gender in nature based visitors are considered as expected in this present time, as females tend to play

a more active part in engaging in nature based tourism. Single respondents made up 58.6% of the study, which is a little over half of the figure, compared to the married respondents which accounted for 39.7%. This could be no surprise as this type of group presumably faced less constraints in term of the availability of time and money to visiting national parks. Most individuals in this study (34 percent) earned an average income of RM1001-RM3000 per month. It is reported that income affects the spending of visitors, as reported by Thrane (2002) and Lee (2001). The preconceived notion in the nature based tourist is that the tourists are highly educated, and hence they are associated with high income. Compared to South Carolina tourists, the number of Malaysian visitors holding a graduate level degree in this study is lower than the 31.4 percent found by Weaver (2011).

## DISCUSSION AND CONCLUSION

The hard domestic ecotourists seemed to display a higher tendency in preferring eco-friendly accommodations, which was displayed in their higher ratings on the attributes reflecting the ecolodges, as compared to the soft domestic ecotourists. The individuals who fell under the 'hard domestic ecotourists' category displayed keenness towards eco-friendly attributes, which somehow revealed their true nature as hard ecotourists. On the other hand, soft domestic ecotourists were portrayed to display keenness in wanting for more comfortable accommodations, as evident in their desires for comfort and services.

TABLE 4 Respondents' general characteristics

	Demographic profile	Frequencies	Percentages (%)
Age	Below 20	48	11.9
	21-30	218	54.1
	31-40	81	20.1
	41-50	35	8.7
	Over 50	15	3.7
	Undisclosed	6	1.5
Gender	Male	208	51.6
	Female	195	48.4
Marital Status	Married	160	39.7
	Single	236	58.6
	Single Parent/Divorced	2	0.5
	Undisclosed	5	1.2
Income	Below 1000	85	21.1
	1001-3000	137	34.0
	3001-5000	50	12.4
	5001-7000	5	1.2
	7001-9000	4	1.0
	9001-10000	6	1.5
	Over 10001	1	0.2
	No Income	78	19.4
	(Student/Retiree/Housewife)		
	Undisclosed	37	9.2
Educational level	Primary school	2	0.5
	Secondary school	101	25.1
	Diploma	119	29.5
	Bachelor degree	144	35.7
	Graduate degree	28	6.9
	Vocational school	2	0.5
	No formal education	1	0.2
	Undisclosed	6	1.5
Occupation	Professional and managerial	145	36.0
	Academician and researcher	15	3.7
	Skills and technical workers	32	7.9
	Business and services	74	18.4
	Manual labour	9	2.2
	No income (Homemaker/Retiree/ Students)	95	23.6

cont'd Table 4

	Undisclosed	33	8.2	
Places of origin	West Malaysia	194	47.9	
	East Malaysia	199	49.6	
	Undisclosed	10	2.5	

As apparent from the results, they displayed a 'not so keen' attitude towards accommodations that are located remotely outside the city.

Conceptually, this study contributed towards the strengthening of the characteristics of two contrasting types of ecotourists. The hard domestics and the soft domestics fit into the hard-soft dimensions of ecotourism, as proposed theoretically by Laarman and Durst (1987), on top of the comprehensive-minimalist dimensions and the hard-soft manifestations proposed by Weaver (2005). Hence, as conceptually proposed in this study, the hard domestics and soft domestics adhere to the same variants in their preferences towards the ecofriendly attributes in their accommodation selection

As demonstrated by the results of this study, the hard domestic ecotourists reflected the characteristics towards the hard end of the ecotourism spectrum. This is revealed in their tendencies to displaying avid nature lover characteristics and low expectations towards services and comfort, concurring with Weaver and Lawton's (2002) identification of hard ecotourists. On the contrary, the soft domestic ecotourists demonstrated affinity towards the end of the soft ecotourism spectrum in their preferences towards the eco-friendly accommodations. Although they displayed

the basic traits of ecotourists such as loving nature and having fondness towards a peaceful surrounding, they also portrayed the characteristics of soft ecotourists due to their reluctance in preferring rustic and remote accommodations, as well as having high expectations towards acquiring the comfort of air-conditioner and accommodation with complete facilities.

Future research should consider data collection at two different areas, such as between an area without eco-friendly accommodations and that with eco-friendly accommodations. The two areas can be compared across independent samples for the formulation of strategies which will help ecotourism destinations to foster better eco-friendly programmes and practices. The researchers also suggest that future research concentrate on water management, energy management, promotion and marketing, materials and structure, as well as other relevant ecotourism issues, as stipulated in the ecolodge guidelines. These characteristics will provide invaluable information in assisting relevant authorities in developing eco-friendly accommodations of the future.

Active implementation of eco friendly programmes and practices will become landmark ecotourism areas. Apart from providing information on the importance of conservation through various interpretive products, the accommodations in ecotourism areas should actively adopt environmental-friendly programmes. These programmes must pledge to actively promote the principles of ecotourism. A public environmental policy for future developments of accommodations should also be able to foster green friendly initiatives in and around parks.

We conclude that the results of this study have provided evidence that ecotourists are not homogenous even if the population appears to more likely be similar in many ways. As stated by Wight (2001), ecotourists have differences in terms of their preferences towards the attributes of eco-friendly accommodations. Thus, this study has indeed contributed to the body of knowledge of ecotourists and their preferences towards eco-friendly accommodations, specifically in a Malaysian setting.

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## REFERENCES

- Beh, A., & Bruyere, B. L. (2007). Segmentation by visitor motivation in three Kenyan National Reserves. *Tourism Management*, 28(6), 1464-1471.
- Blamey, R. K. (1997). Ecotourism: The search for an operational definition. *Journal of Sustainable Tourism*, 5(2), 109 130.

- Buckley, R. (2003). Case studies in ecotourism: CABI Pub.
- Chan, J. K. L., & Baum, T. (2007). Ecotourists' perception of ecotourism experience in Lower Kinabatangan, Sabah, Malaysia. *Journal of Sustainable Tourism*, 15(5), 574 590.
- Eagles, P. F. J., McCool, S. F., & Haynes, C. D. (2002). Sustainable tourism in protected areas: Guidelines for Planning and Management: World Conservation Union.
- Fennell, D. A. (2008). Ecotourism: Psychology Press.
- Gardner, J. (2001). Accommodations. In D. Weaver (Ed.), *The Encyclopaedia of Ecotourism* (pp. 525-534). Wallingford, UK: CAB International.
- Haig, I., & McIntyre, N. (2002). Viewing Nature: The role of the guide and the advantages of participating in commercial ecotourism. *Journal of Tourism Studies*, *13*(1), 39-48.
- Horner, S., & Swarbrooke, J. (2007). Consumer Behaviour in Tourism. *Iso-Britannia: Butterworth Heinemann*.
- Hvenegaard, G. T. (2002). Using tourist typologies for ecotourism research. *Journal of Ecotourism*, *1*(1), 7 18.
- Kwan, P., Eagles, P. F. J., & Gebhardt, A. (2008). A comparison of ecolodge patrons' characteristics and motivations based on price levels: A case study of Belize. *Journal of Sustainable Tourism*, *16*(6), 698 718.
- Klecka, W. R. (1980). *Discriminant analysis*: Sage Publications.
- Laarman, J. G., Durst, P. B., Research, S. C. f. F. E., & Initiative, F. P. E. (1987). *Nature travel and tropical forests*: Southeastern Center for Forest Economics Research.
- Lee, H. C. (2001). Determinants of recreational boater expenditures on trips. *Tourism Management*, 22(6), 659-667.

- Mehta, H., Báez, A. L., & O'Loughlin, P. (2002). International Ecolodge Guidelines: International Ecotourism Society.
- Myers, N., Mittermeier, R. A., Mittermeier, C. G., da Fonseca, G. A. B., & Kent, J. (2000). Biodiversity hotspots for conservation priorities. *Nature*, 403(6772), 853-858.
- Osland, G. E., & Mackoy, R. (2004). Ecolodge performance goals and evaluations. *Journal of Ecotourism*, *3*(2), 109 128.
- Palacio, V., & McCool, S. (1997). Identifying ecotourists in Belize through benefit segmentation: A preliminary analysis. *Journal* of Sustainable Tourism, 5(3), 234 - 243.
- Pearce, D. G., & Wilson, P. M. (1995). Wildlifeviewing tourists in New Zealand. *Journal of Travel Research*, 34(2), 19.
- Russell, D., Bottrill, C., & Meredith, G. (1995).
  The Ecolodge Sourcebook—For Planners and Managers. North Bennington, VT: The Ecotourism Society.
- Thrane, C. (2002). Jazz festival visitors and their expenditures: Linking spending patterns to musical interest. *Journal of Travel Research*, 40(3), 281.
- Timothy, D., & Teye, V. (2009). *Tourism and the Lodging Sector*: Elsevier.

- Weaver, D. (2008). Ecotourism: John Wiley & Sons Australia.
- Weaver, D. B. (2001). The encyclopaedia of ecotourism: CABI Pub.
- Weaver, D. B. (2011). Psychographic insights from a South Carolina protected area. *Tourism Management*, In Press, Corrected Proof.
- Weaver, D. B. (2005). Comprehensive and minimalist dimensions of ecotourism. *Annals of Tourism Research*, 32(2), 439-455.
- Weaver, D. B., & Lawton, L. J. (2002). Overnight ecotourist market segmentation in the Gold Coast Hinterland of Australia. *Journal of Travel Research*, 40(3), 270-280.
- Wight, P. (2001). Ecotourists: Not a homogeneous market segment. *The encyclopaedia of ecotourism*, 37–62.
- Wight, P. A. (1997). Ecotourism accommodation spectrum: does supply match the demand? *Tourism Management, 18*(4), 209-220.
- Wurzinger, S., & Johansson, M. (2006). Environmental concern and knowledge of ecotourism among three groups of Swedish tourists. *Journal of Travel Research*, 45(2), 217-226.