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Visitors' Visiting Motivation: Bako National Park, Sarawak

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Abstract

This study was conducted to analyse the visitors' motives of visiting Bako National Park. A total of 564 local and foreign visitors were interviewed. Factor analysis with the varimax rotation method was employed to gain information from visitors on their behaviour reflecting their motives for ecotourism activities in the national park. The results showed that visitors visit a national park for four factors, which are challenge excursion, social trip, nature tour and getaway outing. This result may help the management authority to reposition national park attributes without neglecting the objectives of the national park existence. Several marketing implications also can be drawn from this study.

1. Introduction

Motivation is basic strength behind human behaviour (Berkman and Gilson, 1978). This refers to the internal needs and wants that generate a state of disequilibrium within individuals (Crompton and McKay, 1997). Many studies have discussed the travel motivation in tourism literature. However, the discussion of motivation has not been expanded to the national park tourism in a developing country such as in Malaysia. This study adopted the motivation scale applied by Boxall and Adamowicz (2002). The aim of this paper is to understand why visitors visiting national parks by applying to the site Bako National Park (NP). These reasons of visiting would help the authorized management in promoting the national parks. Hence the result may be applied to other parks to improve the marketing strategies. National park supplies

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the most important part of tourism experience. This is because it is the only category of protected areas that can be visited. National park has tremendously high value in ecological, recreational and cultural setting which catches the attention of the necessity of being continuously managed.

1.1. Ecotourism

In 1993, Ceballos-Lascurain has defined ecotourism as "environmentally responsible travel and visitation to relatively undisturbed natural areas, in order to enjoy and appreciate nature (and any accompanying cultural features, both past and present) that promotes conservation, has low visitor impact, and provides for beneficially active socio-economic involvement of local populations" (MOCAT and WWF, 1995, p. xi, Part 1). As ecotourism activities are motivated by nature, visitors' experiences occur almost entirely in the state's national parks. The state has plenty of nature and cultural based resources which yet to be fully explored.

Visitors are attracted to visit a national park because of the natural surrounding and the environmental benefits that the site can offer. Ranging from easy strolls to hiking in parks on trails are among the most common recreation facilities provided in parks. Nature or built up trails provide an excellent way for visitors in exploring the natural areas hence, the most restorative of ecotourism activities (Oh and Hammitt, 2010). Visitors enter national parks with expectations. Accomodation facilities, park interpretation and information, wildlife observation and food and beverages are part of their concern. Hearne and Salinas (2002) demonstrated that both foreign and local visitors preferred improved infrastucture at the visitors' centre and more information about the area either written or oral presentation. In another research, these two populations had similar preference towards improved national park management and the presence of park guides for wildlife viewing (Hearne and Santos, 2005).

Visitors who decide to commit to ecotourism activities would want to experience it in the natural setting. Suh and Harrison (2005) stated that visitors experience of wilderness can be recognized as the highest valued service in the park. It was found that visitors preferences, level of satisfaction and importance onto the attributes in the park are affected by (a) previous experiences of visiting other parks, (b) prior knowledge about the park and (c) information that they learn and understand which can be a link to experience in the park (Arabatzis and Grigoroudis, 2010).

Factors above also gives different preferences among visitors. Backhaus (2003) reported that local visitors are more to leisure activities, and foreign visitors are actively engaged in activities such as hiking, tekking, observing plants, animals or local culture. Chui et al. (2010), in a study done in Taman Negara National Park, further categorised visitors activities into four clustered themes which are personality-centric, activity-centric, site-centric and environment-centric. Every national park is unique to their own natural and service setting. This includes differences in weather, accesibility, site congestion, use restictions and tour packages. Therefore, the commitment from the government in promoting ecotourism activities and providing facilities should be considered as a continuous effort as visitors preferences are diverse.

2. Description of the area

Sarawak is the largest state in Malaysia with a total area of 124, 450 km² or 12.445 million hectares that is 37% of Malaysia area. The state is situated on the island of Borneo. Sarawak is a small developing tourism destination in South East Asia. In 2010, of the total 24.6 million visitor arrivals to Malaysia, Sarawak has accounted for 13.3% (3.27 million) of visitors. Sarawak has recognized the need to conserve its natural resources in the 1950s. In Sarawak, total protected area (TPA) is referred to the forest lands which are designated and established under the provision National Park Ordinance 1958 (National Parks

and Nature Reserves Ordinance 1998) and Wildlife Protection Ordinance 1957 (Wildlife Protection Ordinance 1998). Under these ordinances, public as well as residents of Sarawak are strictly prohibited from taking any form of forest produce in the TPA. These TPA is categorised into National Parks, Wildlife Sanctuaries and Nature Reserves.

Bako NP is located 37 kilometres to the east of the capital city of Kuching with the coordinates of 1°43'N 110°28'E. Figure 2.3 shows the geographical details and boundary of Bako NP. The small figure at the top right corner is locating the park in Sarawak map. The highest point has an altitude of 800ft from the sea level. Covering an area or 2,727 hectares or 27 km^2, in the map, Bako NP is at the tip of the Muara Tebas peninsular. Lies on a rocky headland at the peninsular, the coastline is facing South China Sea. The area was named after mangrove's *Rhizophora* species. Local name for this species is *bakau* or *bako* as the native pronounce it. The name of a village was given as Bako Village or Kampong Bako. Kampong Bako, inhabit by the natives more than hundreds year ago, was established in 1853. Formerly known as Muara Tebas Forest Reserve in 1927, Bako NP was the first in Sarawak to be gazetted as a national park on 1 May 1957 and was opened to public on 4 May 1957.

Apart from its scientific value, Bako NP has a tremendous attraction for its animal and plant life together with the geological formation of the park. It has a wonderful mixture of forest, open heath land, cliffs, sandy beaches, formation of rock and packed with numerous wildlife species in such a limited park area (Lim, 1990). Chin et al. (2000) reported more than 90% of visitors responded that activities that were of importance when in Bako NP were to feel close to nature, observing and encountering wildlife.
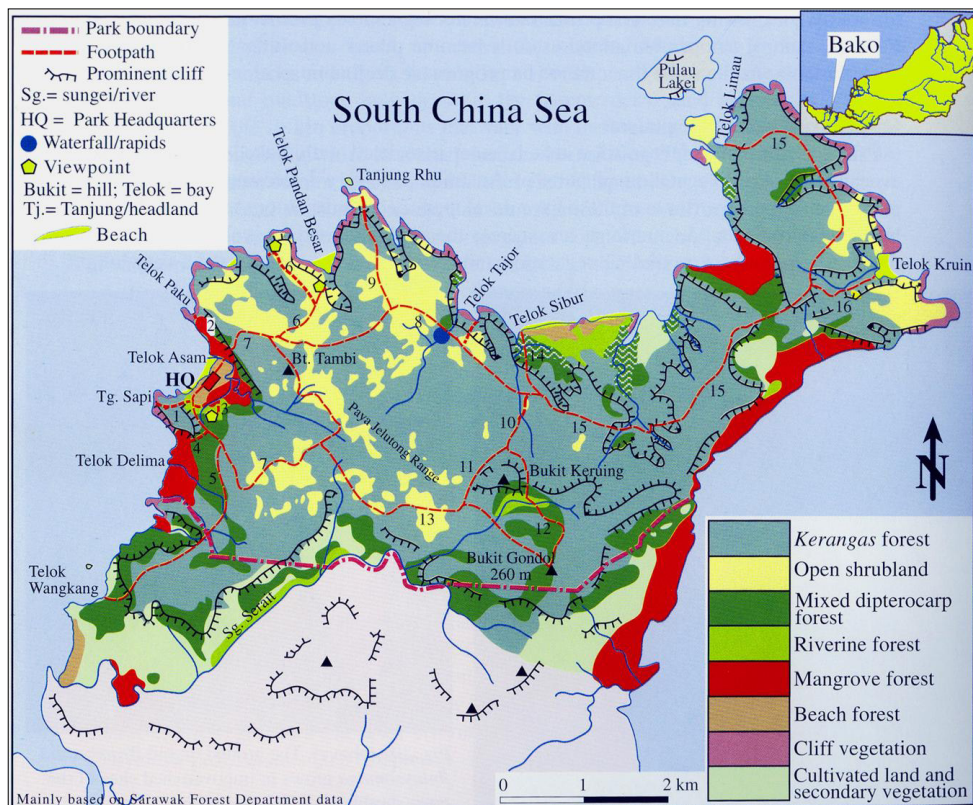

Fig. 1. Location of the study area

3. Method

3.1. Survey design

The target population for this study consist of local and foreign visitors to Bako NP. The sampling method used would be the traditional visitor monitoring surveys of the national park, which is a random sampling. The use of random sampling is to allow all visitors who come past the survey point have the equal chance to be asked for their willingness to take part in the survey. The sample size used for this study will follow the table provided by Krejcie and Morgan in 1970 where for the population of 40000 visitors would require a sample of 380. However, in order to allow for unusable questionnaires due to missing values or failure of return, it is seen to be necessary to exceed 450 samples to ensure the required sample is achieved.

There are 20 statements of possible reasons reflecting their attitude for visiting a national park as employed by Boxall and Adamowicz (2002). In the questionnaire, the researcher asked respondent to rate the statements based on 5 points Likert scale of how strongly they felt about a set of statements. The responses were weighted between 1 to 5 with higher values indicating greater agreement. This study employed Exploratory Factor Analysis (EFA) to identify the fundamental construct from a large set of control variables. By this, EFA reduces the number of factors extracted and specifies a particular pattern of association between measured variables and common factors. In other words, EFA was employed to validate the dimensional of each construct, summarize and reduce data. This was to identify the underlying structure of the items. In order to confirm the results which show the underlying structure of the items, Confirmatory Factor Analysis (CFA) is a tool that needs to be applied. However, the method for this paper in result reporting is limit to only EFA.

IBM SPSS 20 was used to perform EFA in this study. The initial assessment of data suitability for performing factor analysis was examined based on three criteria. Firstly, to show the strength of inter-correlation among items, the coefficient must be greater than 0.03. Secondly, Bartlett's Test of Sphericity should be significant at $p<0.05$ and lastly, the Kaiser Mayer Olkin (KMO) should be at least 0.06. The employment of Principal Component Method (PCM) with varimax rotation was used to extract the factor. Therefore, in this study PCM was employed to determine the underlying perception of visitors' reasons of visiting a national park. Eigen values and scree plots were used to show the number of factors. Two predetermined criteria to remove items were low loadings and heavy loadings on more than one factor.

4. Results

4.1. Visitors' profile

From a total of 564 respondents, 57.8% are foreign visitors and 42.2% are local visitors. The highest proportion of foreign respondents is from the European region (73.3%). Of this percentage, 73.2% are from Netherland, United Kingdom, Germany and France. The highest local visitors are from Sarawak (54.2%) followed by Kuala Lumpur (23.5%). More than half of the respondents are male (53.4%) compare to female (46.6%). A majority (71.3%) of the respondents are in the 20 to 39 years of age group.

Only 4.8% are below 20 years old and 10.1% are over 50 years old. The respondents that are over 50 years of age are mostly foreigners (14.7%) compare to only 3.8% locals (refer to Table 1). This coincides with the statistics on work status where 4.6% retirees are foreigners and only 1.7% is locals. From Figure 2, female respondents are found to be more than male respondents in the range of less than 30 years of age. Higher male respondents are in the range of more than 30 years of age. Very distinctive of low female respondents can be seen for the age above 50.

Table 1. Visitor's profiles

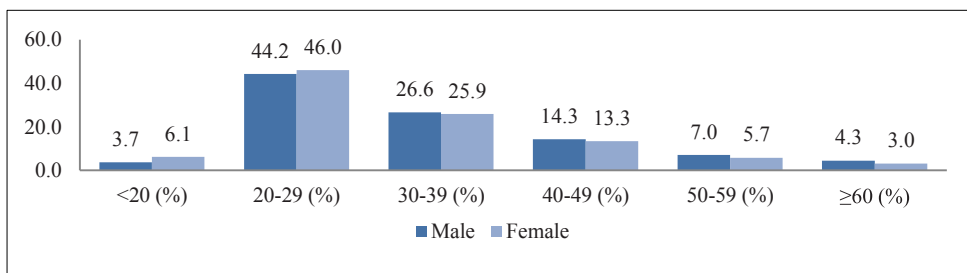| Characteristics	Percentage (%)	n
Gender		
Male	53.4	301
Female	46.6	263
Origin		
Foreign	57.8	326
Local	42.2	238
Age		
< 20	4.8	27
20 - 29	45.1	254
30 - 39	26.2	148
40 - 49	13.8	78
50 - 59	6.4	36
≥ 50	3.7	21
Education level		
Postgraduate degree	37.8	213
Undergraduate degree	43.6	246
Secondary school	17.8	100
Primary school	0.8	5
Occupation		
Employed	75.5	426
Seeking employment	8.9	50
Retired	3.4	19
Others	12.2	69
Monthly Income		
< RM3000	33.1	187
RM3000 – RM6000	21.3	120
RM6001 – RM9000	15.6	88
> RM9000	30.0	169

Fig. 2. Percentage of age distribution between genders

4.2. Characteristics of visits

This section explains respondents' characteristics of visits. The results are presented in Table 2. More than half of both foreign (83.5%) and local (54.6%) visitors have been to at least one national park before. From this total, only 7.4% of foreign and 18.5% of locals has visited Bako NP before. The results also show that 64.1% of foreign and 79.8% of local respondent will visit Bako NP again in the future.

Table 2. Characteristics of visits

Statement	Response	Foreign (%)	Local (%)
Respondent has been to at least one national park before	Yes	83.5	54.6
	No	16.5	45.4
Respondent has visited Bako NP before	Yes	7.4	18.5
	No	92.6	81.5
Respondent will visit Bako NP again in the future	Yes	64.1	79.8
	No	27.3	18.5
	Maybe	8.6	1.7

More than half of visitors in this study (64.4%) prefer to seek guidance of park guides. The remaining (35.6%) need privacy and able to explore the park by themselves. 95.2% of the visitors were expressing that it was worth to pay the entrance fee to the activities that they had experienced. Finally, more than half of visitors in this study (76.7%) prefer to visit as a day trip only. While 23.3% of them prefer to stay on the average of 2 nights.

4.3. Visitors' motives in visiting Bako NP

Table 3 presents the results for the perception of reasons of visitors' visit to the national park in frequencies and percentages. The overall result shows that respondents are positively agree with all the statements except for the statement *c*: To do things with other people. More than half responded disagree (27.1%) and neutral (44.9%) with this reason of park visit. Statements *h*, *i*, *j*, *l* and *s* shows that more than 70% of the respondents highly agree and strongly agree to the reason of visits which are 83.3%, 86.6%, 78.7%, 81.2% and 72% respectively. The highest response for strongly agree was to develop skills (52.7%) as the reasons of the national park visits. This followed by 41.5% strongly agreed to the reason of feeling independent.

All the 20 items were used to measure respondents' motives of visiting. EFA was conducted on these 20 items to extract the motivation factor. This helped to examine the structure of visitors' motive of visiting the national parks. Out of these 20 items, 18 have loadings greater than 0.5 and were retained for further analysis. Only factors with Eigen value larger than 1.0 will be extracted. The internal consistency or reliability of the items was evaluated using Cronbach's alpha. Cronbach's alpha provides an index of internal consistency of each item within its respective constructs. The alpha is inferred as the extent to which items in the construct measure the same thing.

Table 3. Percentage of visit motives

Statement	Strongly disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly Agree (%)
a. To strengthen relationships with friends or family	4.6	16.1	35.8	38.8	4.6
b. To be with my friends or family	2.5	19.1	39.2	36.3	2.8
c. To do things with other people	5.1	27.1	44.9	20.7	2.1
d. To be with people of similar interests	2.5	14.9	36.5	38.8	7.3
e. To get away from everyday routine	2.3	12.4	35.3	38.1	11.9
f. To relieve my tensions	4.1	11.5	30.7	44.3	9.4
g. To escape from the pressures of work	8.2	22.9	36.2	26.4	6.4
h. To challenge my skills and abilities	0.0	2.0	14.7	45.2	38.1
i. To develop my skills	0.0	0.9	12.6	33.9	52.7
j. To challenge nature	0.2	1.8	19.3	44.5	34.2
k. To feel free from society's restrictions	0.7	4.6	27.3	46.8	20.6
l. To feel independent	0.0	1.1	17.7	39.7	41.5
m. To observe the beauty of nature	2.7	12.4	37.6	36.9	10.5
n. To enjoy the sights, sounds and smells of nature	3.9	17.0	38.8	32.4	7.8
o. To feel close to nature	3.4	13.3	39.9	36.7	6.7
p. To find quiet places	2.7	12.9	40.8	37.4	6.2
q. To be in charge of a situation	1.4	8.2	27.5	45.6	17.4
r. To obtain a feeling of harmony with nature	1.2	8.5	32.3	43.1	14.9
s. To be alone	0.7	5.5	21.8	49.5	22.5
t. To be away from other people	5.7	19.7	38.8	27.1	8.7

As a result of that, four factors were extracted with the eigenvalues of above 1.0 and the total variance of 59.274 percent. These four factors were given names based on their common themes identified across the statements in survey questions. The common themes were identified and grouped according to common semantics, i.e. words and phrases. These four factors were labelled as a nature tour, challenge excursion, social trip and getaway outing.

In previous studies done by Boxall and Adamowicz (2002), the authors grouped the motives into four factors namely; challenge and freedom, nature appreciation, social relationships and escape from the routine. The items which are loaded to those factors are shown in Table 4 below.

Based on this study, respondents expressed their opinion regarding their motive of visiting Bako NP in four factors. This was from the varimax EFA result that loaded all the items into four factors. The KMO measure of sampling adequacy is 0.797 which is larger than 0.6. On the other hand, a significant Bartlett's Test of sphericity results with Chi-Square = 4956.955 further support the factorability of the correlation matrix.

Table 5 shows that respondents visiting Bako NP for challenge excursion. There were six items measuring this motive. A varimax rotation suggested only five items explained respondent's motive. This challenge excursion factor has a reliability coefficient of alpha = 0.84. This factor can explain 24.706% of the variance in the five items loaded.

Table 4. Visit motives of prvious research

Items
Challenge and freedom
to challenge my skills and abilities
to develop my skills
to be in charge of a situation
to feel independent
to feel free from society's restrictions
to challenge nature
to be alone
Nature appreciation
to feel close to nature
to observe the beauty of nature
to obtain a feeling of harmony with nature
to find quiet places
to enjoy the sights, sounds, and smells of nature
Social relationships
to be with my friends or family
to strengthen relationships with friends or family
to do things with other people
to be with people with similar interests
Escape from routine
to escape from the pressures of work
to relieve my tensions
to get away from my everyday routine
to be away from other people

Table 5. Factor loadings on visiting motivation factors of "challenge excursion"

Items	Factor loading	Cronbach's alpha
Challenge Excursion		0.840
To develop my skills	0.864	
To challenge my skills and abilities	0.823	
To feel independent	0.796	
To challenge nature	0.728	
To feel free from society's restrictions	0.598	
Eigenvalues	4.941	
% of variation	24.706	

Table 6 shows that respondents visiting Bako NP for social trip. There were six items measuring this motive. A varimax rotation suggested the items explained respondent's entire motive. This social trip factor has a reliability coefficient of alpha = 0.816. This factor can explain 15.873% of the variance in the six items loaded.

Table 6. Factor loadings on visiting motivation factors of "social trip"

Items	Factor loading	Cronbach's alpha
Social trip		0.816
To strengthen relationships with friends or family	0.816	
To be with my friends or family	0.812	
To do things with other people	0.771	
To be with people of similar interests	0.644	
To relieve my tensions	0.584	
To get away from everyday routine	0.547	
Eigen values	3.175	
% of variation	15.873	

Table 7 shows that respondents visiting Bako NP for nature tour. There were four items measuring this motive. A varimax rotation suggested the items explained respondent's entire motive. This social trip factor has a reliability coefficient of alpha = 0.794. This factor can explain 10.226% of the variance in the four items loaded.

Table 7. Factor loadings on visiting motivation factors of "nature tour"

Items	Factor loading	Cronbach's alpha
Nature tour		0.794
To observe the beauty of nature	0.854	
To enjoy the sights, sounds and smells of nature	0.851	
To feel close to nature	0.745	
To find quiet places	0.580	
Eigen values	2.045	
% of variation	10.226	

Table 8 shows that respondents visiting Bako NP for nature tour. There were four items measuring this motive. A varimax rotation suggested three of the items explained respondent's motive. This social trip factor has a reliability coefficient of alpha = 0.859. This factor can explain 8.469% of the variance in the three items loaded. All the items in these four factors were found to have high factor loading of more than 0.5. The factor loading are ranging from 0.547 to 0.864 and communalities ranging from 0.376 to 0.787. Communalities represent the percentage of variance in each item that can be explained by the extracted factors. The coefficient of more than 0.5 for the factor loading by Hair et al. (2010) is used as a benchmark to indicate a realistic loading for each item.

Table 8. Factor loadings on visiting motivation factors of "nature tour"

Items	Factor loading	Cronbach's alpha
Getaway outing		0.859
To obtain a feeling of harmony with nature	0.838	
To be alone	0.831	
To be in charge of a situation	0.820	
Eigen values	1.694	
% of variation	8.469	

5. Discussion and conclusion

Reliability is a major concern in research which involves scale in determining motivation of visitors' visit. Reliability refers to the repeatability of the result by using the same measurement. This study developed a scale of motivations to visit Bako NP by following the items recommended by Boxall and Adamowicz (2002). There are several marketing implications can be drawn from this study. First, "Challenge excursion" was found to be the strongest motivation in the survey. This suggests that visitors associate visiting a national park for ecotourism activities such as developing skills, abilities and to challenge the nature. These are their primary reasons which motivate them to visit a national park. Therefore, the promotion of this park should demonstrate visitors enjoying their independent with nature and from society's restrictions in order to develop their skills and abilities. Secondly, different motivations to visit were identified in this study. This suggests that although visitors are motivated by the feeling of independent, they may also expect to visit with others who have similar interest which could be friends or family. The park may offer discounts to those who bring a new family member or friend. This may not only encourage bonding time with friends on the cruise, but also attract new visitors and expand the ecotourism market. To respond to "Nature tour" and "Getaway outing", different strategies may also be implemented. This suggests that visitors need to find quiet places to feel close to nature and to be alone. They are motivated by relaxing and escaping aspects of ecotourism. From the data analysis, it can be concluded that the quality of services, visitor's identification (Rahadi, 2012) as well marketing strategies play a significant part for visitors revisit behaviour in the national park. Given that the increasing popularity of ecotourism in the national park in Asia countries and scarcity of research in this topic, this result is believed an additional contribution to the literature. It is also hoped that this may become a stepping stone to further investigation in this topic.

References

Arabatzis, G. & Grigoroudis, E. (2010). Visitors' satifaction, perception and gap analysis: The case of Dadia-Lefkimi-Souflion National Park. *Forest Policy and Economics,* 12, 163 - 172.

Backhaus, N. (2003). 'Non-place jungle': The construction of auhenticity in national parks of Malaysia. *Indonesia and the Malay World,* 31(89), 151 - 160.

Berkman, H. W. & Gilson, C. C. (1978). *Consumer behavior: Concepts and strategies.* Belmont, California: Dickenson Press.

Boxall, P. C. & Adamowicz, W. L. (2002). Understanding heterogenous preferences in random utility models: A latent class approach. *Environmental and Resource Economics,* 23(4), 421 - 446.

Chin, L. M., Moore, S. A., Wallington, T. J. & Dowling, R. K. (2000). Ecotourism in Bako National Park, Borneo: Visitors' perspectives on environmental impacts and their management. *Journal of Sustainable Tourism,* 8(1), 20 - 35.

Chui, T. B., Faizah, A. R., Faridah, H., Rosidah, M., Jamaliah, M. Y. & Rohiyati, H. (2010). Exploring tourist experiencescape and servicescape at Taman Negara (National Park Malaysia). *International Journal of Trade, Eonomics and Finance,* 1(1), 28 - 31.

Crompton, J. L. & McKay, S. L. (1997). Motives of visitors attending festival events. *Annals of Tourism Research,* 24(2), 425 - 439.

Dixit, S. K. & Narula, V. K. (2010). Ecotourism in Madhav National Park: Visitors' perspectives on environmental impacts. *South Asian Journal of Tourism and Heritage,* 3(2), 109 - 115.

Hair, J. F., Black, W. C., Babin, B. J. & Anderson, R. E. (2010). *Multivariate data analysis: A global perspective.* London: Pearson.

Hearne, R. R. & Salinas, Z. M. (2002). The use of choice experiments in the analysis of tourist preferences for ecotourism development in Costa Rica. *Environmental Management,* 65(2), 153 - 163.

Hearne, R. R. & Santos, C. A. (2005). Tourists' and locals' preferences toward ecotourism development in the Maya Biosphere Reserve, Guatemala. *Environment, Development and Sustainability,* 7(3), 303 - 318.

Lim, M. T. (1990). Photofeature: Bako National Park. *Malayan Naturalist, 43*(4), 19.

MOCAT & WWF (1995). *National Ecotourism Plan: Malaysia* (Vols. Part 1-6). Petaling Jaya: Ministry of Culture, Arts and Tourism and World Wildlife Fund.

Oh, C. & Hammitt, W. E. (2010). Determining economic benefits of park trails: Management implications. *Journal of Park and Recreation Administration,* 28(2), 94 - 107.

Rahadi, R. A. (2012). Repeat consumption behaviour in traditional markets: Bandung and surrounding regions. *Journal of Asian Behavioural Studies,* 2(5), 79 - 92.

Suh, J. & Harrison, S. (2005). Management objectives and economic value of national parks: Preservation, conservation and development. *Discussion Paper.* Queensland, Australia: The University of Queensland.