



UNIVERSITI PUTRA MALAYSIA

**SEGMENTATION OF VISITORS USING TRAVEL MOTIVATION
APPROACH AT THE KUALA GANDAH NATIONAL ELEPHANT
CONSERVATION CENTER**

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APPROACH AT THE KUALA GANDAH NATIONAL ELEPHANT
CONSERVATION CENTER**

By

SUZIANA BINTI HASSAN

**Thesis Submitted to the School of Graduate Studies, Universiti Putra
Malaysia, In Fulfilment of the Requirement for the Degree of Master
of Science**

August, 2009



DEDICATION

Specially dedicated to:

To my beloved family



Abstract of thesis presented to the Senate of Universiti Putra Malaysia in
fulfilment of the requirement for the degree of Master of Science

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Chairman: Associate Professor Abdullah bin Mohd., PhD

Faculty: Forestry

Market segmentation has become an important tool in planning appropriate marketing strategies. It is a technique used to subdivide a heterogeneous market into homogeneous sub-groups based on the idea that a market is composed of sub-groups of people. While, nature-based product is widely adopted market using a travel motivation segmentation approach to differentiate the different criteria of visitors. The purpose of this study was to segment the nature-based tourists in KGNECC using their travel motivations which is able to recognize different types of nature-based tourist in relation to their travel attributes and characteristics. A survey was administered to a total of 401 samples of respondents using self-administered sampling design where they were asked to choose a statement related to their travel that correspond to nature-based tourist type namely as (1) ecotourist, (2) nature escapist, (3) comfortable naturalist, and (4) passive player. Multiple



Discriminant Analysis (MDA) test was administered to segment and predict nature-based tourist types based on seven discriminator variables encompasses of socio-demographic factor, trip characteristic factor, and travel motivation factor. Statistical analyses showed there are significantly relationship between the motivation factors and nature-based tourist groups ($P < 0.05$). Therefore, the next method of MDA is possible to proceed. The result showed that 64.1% original cases were correctly classified and 60.8% of cross-validated grouped cases correctly classified. Since the result of correctly classified differed to cross-validated grouped cases, *maximum-proportional chance criterion* calculation was done and it shows that the model of MDA is acceptable and valid. The highest correctly self-reported was 'Ecotourists' (73.3% correctly classified). 71.1% of the 'Passive Players' correctly report themselves and 66.7% correctly report as 'Comfortable Naturalists'. 'Nature Escapist' became the lowest correctly reported made of 45.5% of the total respondents in that group. Further analyses using cross-tabulation indicated that Ecotourists who traveled to this setting, do not differed from other segments in terms of social-demographic and trip characteristics, but had higher engagement in recreational activities. The visitors that include in Ecotourist group also had higher contributions to travel motivations attributes and they are concern towards wildlife conservations. In overall, it can be said that the ecotourists can be referred to 'hard ecotourist', while nature escapists and comfortable naturalists in 'medium ecotourist' and lastly passive players is considered as 'soft ecotourist'. Hard ecotourist were revealed as 'true' ecotourists compared to other types

since they placed higher importance towards travel motivations and conservation awareness as compared to other segments. The results propose several implications for nature-based product promotion and development, and implementation of a sustainable tourism. Such research enables managers, planners, and policy makers to better link the specific motivation into environmental attributes and it would help to build good destination's image.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia
sebagai memenuhi keperluan untuk ijazah Master Sains

**SEGMENTASI PELANCONG MENGGUNAKAN PENDEKATAN
MOTIVASI PERJALANAN DI PUSAT KONSERVASI GAJAH
KEBANGSAAN, KUALA GANDAH**

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Market segmentasi merupakan kaedah penting dalam merancang strategi pemasaran yang bersesuaian. Teknik ini digunakan untuk membahagikan kepelbagaian market kepada kumpulan homogeneous yang kecil berdasarkan idea bahawa pasaran terdiri daripada sub-kumpulan yang lain. Pada masa yang sama, pasaran berasaskan produk semulajadi sangat meluas diaplikasikan menggunakan pendekatan segmen motivasi perjalanan iaitu dengan membezakan pelbagai kriteria pengunjung. Kajian bertujuan untuk mengsegmenkan pelancong alam semulajadi yang berkunjung ke KGNECC berasaskan motivasi perjalanan mereka. Ini membolehkan pengenalanpastian pelbagai jenis pelancong alam semulajadi berdasarkan kriteria dan atribut perjalanan mereka. Kajian dijalankan terhadap 401 responden dengan menggunakan teknik persampelan mudah di mana mereka diminta untuk memilih kenyataan yang berkaitan perjalanan mereka

yang akan menjelaskan jenis kumpulan pelancong alam semulajadi yang dikenali sebagai (1) *eko-pelancong*, (2) *'nature escapist'*, (3) *'comfortable naturalist'*, (4) *'passive player'*. Analisis Multiple Discriminant (MDA) dilakukan untuk mensegmen dan meramal jenis pelancong alam semulajadi berdasarkan tujuh pembolehubah pembeza yang terdiri daripada faktor demografik, ciri perjalanan, dan motivasi perjalanan pengunjung. Analisis statistik ini menunjukkan perbezaan yang bererti ($P < 0.05$) diantara faktor-faktor motivasi dan kumpulan pelancong. Oleh itu, kaedah analisis MDA yang seterusnya boleh diteruskan. Keputusan analisis menunjukkan 64.1% kes asal telah dikelaskan dengan betul, manakala 60.8% kes asal kumpulan *'cross-validated'* dikelaskan dengan betul. Oleh kerana keputusan kes asal yang dikelaskan dengan betul berbeza dengan kes kumpulan *'cross-validated'*, pengiraan *'maximum-proportional chance criterion'* dilakukan dan ia menunjukkan bahawa model MDA ini boleh diterima dan sah. Eko-pelancong merupakan kumpulan yang paling tinggi dalam mengelaskan diri mereka dengan betul iaitu 73.3%. Sebanyak 71.1% daripada kumpulan *'Passive Player'* telah mengelaskan diri mereka dengan betul, manakala 66.7% adalah daripada kumpulan *'Comfortable Naturalist'*. *'Nature Escapist'* adalah kumpulan yang terendah mengelaskan diri mereka dengan betul iaitu sebanyak 45.5% daripada jumlah responden dalam kumpulan tersebut. Analisis seterusnya dilakukan iaitu *'cross-tabulation'*, yang mengenalpasti bahawa eko-pelancong yang datang ke tempat ini adalah tidak berbeza daripada kumpulan segmen lain dari segi latar belakang demografik dan ciri perjalanan, tetapi lebih banyak melibatkan diri dalam

aktiviti rekreasi. Pengunjung yang tergolong dalam kumpulan eko-pelancong juga mempunyai motivasi perjalanan dan kesedaran terhadap pemuliharaan hidupan liar yang lebih tinggi. Secara keseluruhannya kajian, eko-pelancong boleh dirujuk kepada '*hard ecotourist*', manakala '*nature escapist*' dan '*comfortable naturalist*' dikategorikan sebagai '*medium ecotourist*', dan akhir sekali, '*passive player*' boleh dikategorikan sebagai '*soft ecotourist*'. '*Hard ecotourist*' dicirikan sebagai 'pelancong alam semulajadi yang sebenar' berbanding dengan kumpulan pelancong alam semulajadi yang lain kerana mereka menunjukkan kepentingan yang lebih tinggi terhadap motivasi perjalanan dan kesedaran pemuliharaan. Keputusan kajian mencadangkan beberapa implikasi terhadap promosi dan pembangunan produk pelancongan alam semulajadi serta pelaksanaan pelancongan yang manpan. Kajian seperti ini membolehkan pengurus taman, perancang, dan pembuat polisi untuk menghubungkan spesifik motivasi dan aribut persekitaran dengan lebih baik, dan sekaligus dapat membina destinasi yang berimej baik.

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APPROVAL

I certify that an Examination Committee has met on 11th August 2009 to conduct the final examination of Suziana binti Hassan on her Master of Science thesis entitled "Segmentation of Visitors at Kuala Gandah National Elephant Conservation Centre Based on Their Motivation" in accordance with Universiti Pertanian Malaysia (Higher Degree) Act 1980 and Universiti Pertanian Malaysia (Higher Degree) Regulations 1981. The Committee recommends that the candidate be awarded the relevant degree.

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DECLARATION

I hereby declare that the thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at UPM or other institutions.

SUZIANA BINTI HASSAN

Date: 10 February 2010

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LIST OF ABBREVIATIONS

KGNECC	Kuala Gandah National Elephant Conservation Centre
DWNP	Department of Wildlife and National Park
IUCN	International Union for Conservation of Nature
WTO	World Tourism Organization
MDA	Multiple Disriminant Analysis
WBT	Wildlife-based Tourism

CHAPTER 1

INTRODUCTION

1.1 General Background

Natural areas serve as outlets for urban populations to release their emotions after daily works. These places are able to serve their need to be periodically in touch with the nature and wilderness setting. Moore, Scoot, and Graefe (1998) claimed the usefulness of these areas where it is able to provide a quality experiences and recreational outcomes. In many situations, some people pursue their leisure in recreational activities by visiting wildlife reserve or national parks to enjoy with wildlife. In wilderness settings, they can see some wild animals or they are brought near to this wildlife in safe environment. In the latter situation, the people could experience about the behaviour of wildlife in their own semi-condition or forested surrounding.

In relation to tourism, people spend money to see wildlife and enjoy the scenery in natural ecosystem rather than directly consuming the forest resources. However, the deforestation and human disturbances recently caused considerable lost in the numbers of wildlife and their habitat especially big mammals. Instead of real forest area (people cannot really close with the wild animal), viewing and having an interaction with wildlife in semi-captivity plays an important role to encourage public to save fauna, and

consequently its habitats (Mieczkowski, 1995) as well as to experience the wildlife. These semi-natural animals also enable more people to appreciate animals by viewing and be in contact with them at a closer range. In term of tourism, having interaction with the wildlife in natural, semi-captive, or captive area can be consider as wildlife-based tourism (Weaver, 2001). In the other hand, wildlife tourism is a part of the nature-based tourism where has been stated by Weaver (2001) that included 3S tourism (sea, sand, sun), adventure tourism, captive tourism (i.e. zoological parks, botanical garden, aquariums, and aviaries), extractive or consumptive tourism (e.g. hunting and fishing) and health tourism that utilize natural site in providing experience to people.

Through such tourism in related to the activities is able to indirectly make tourist more sensitive and able to appreciate on the need to protect the nature and at the same time avoid species extinction. In addition, nature tourism promotes awareness among visitors on the importance of wildlife conservation and preservation. As a new form of tourism, nature tourism contributes to the natural environments conservation, local community, and economical independence. Nature tourism in the other hand can be termed as ecotourism that take place in nature and forest.

People travel out of residence area to interact with the nature at the same time to avoid stress. They also seek places of tranquillity filled with nature-based activity for example experience with wildlife in captive or semi-captive

area as offered in Kuala Gandah National Elephant Conservation Centre, Pahang (KGNECC). KGNECC is the only national conservation centre for the Asian elephant (*Elephas maximus*) in Peninsular Malaysia that promotes a closed-in wildlife tourism opportunity to the visitors. In 2006, this centre has recorded 40,416 tourists arrival. This number indicated that a high level of people presence which might caused psychological conflicts between the animal and people including of the park management. This problem however, can be mitigated if the tourist groups are recognised. Dewar, Meyer, and Li (2001) who have stated, understanding the tourists' travel purposes will lead to giving attention to the needs of different target groups in tourism destination.

1.2 Problem Statement and Justification

Kuala Gandah National Elephant Conservation Centre (KGNECC) located in Krau Forest Reserve in Pahang was recognised as one of the nature tourism destination. The elephants that were captured in a wild and kept in this centre became the source of attraction to the tourists. This centre offers the opportunity to the visitors to interact with semi-wild elephant directly. It also provides resources for environmental educational programmes as well as to enhance people's awareness on wildlife conservation.

Interact with wildlife is possible through observing, feeding, touching, photographing or otherwise experiencing wild animal exists in a variety of

settings. Several authors such as Ryan (1998), Shackley (1996), Muir (1993), Hammitt, Dulin, and Wells (1993), Duffus and Wipond (1992), Heath (1992), Clamen and Rossier (1991), and Duffus and Dearden (1990) mentioned that interaction with wildlife has becoming increasingly popular. This increasingly popular activity occurs within the broader perspective of an increasing demand among tourists for opportunities to interact with nature (Jenner and Smith, 1992). This type of wildlife interaction tourism has potential benefits for a long-term effect of changing attitudes towards wildlife and natural habitats conservation.

The DWNP critically reviewed the objectives of Krau Wildlife Reserve reflect the need for multiple management functions of the centre that ecotourism is one of them. In 2006 alone, over 3,000 visitors were recorded at the centre every month whether to observe or directly in contact with the elephants as well as for leisure (DWNP, 2006). Since then, the increasing number tourists visiting this centre conflicting in experiences sought was so obvious. As a result, this situation may cause a lot of conflicts were arisen by different tourists' backgrounds and inclinations to visit include domestic and foreign tourists.

Reynolds and Braithwaite (2001) proposed that most of wildlife-tourism as being promoted lacks important information and direction on the tourists' needs, desires, and inclination with different motivation and experiences that they sought. Dewar *et al.* (2001) stated, considerate visitor's motivation ia

able to increase their enjoyment and quality of the experience. In order to understand different motivation among the different types of visitor, clustering them into a certain group will help the manager to channel the tourists into their preferences based on their travel purposes. On the other hand, recognizing the target groups can help park manager to ensure that the visitors will meet their travel target related to their experience. Target groups could be describes using the market segmentation technique as indicated by McCleary (1995) that segmentation is a powerful marketing tool because it brings knowledge of visitor identities.

Tourist's motivations in various views were applied in this study. Motivation of making travel is used as the basis of segmentation because the benefits, which people seek in enjoying and experiencing a given products can be the basis for the formulation of market segments (Haley, 1968). Once the motivations of visitors have been identified, it is essential to give attention to the needs of different target groups at the elephant's centre.

No previous study has been conducted to determine the different types of tourist and their experience at KGNECC. This study, therefore, focus on the segmentation both domestic and foreign tourist based on their backgrounds, purpose and travel motivation(s), and their inclination to pursue a specific recreation outcomes that include their personal growth, adventure, and learning about the nature and community. By segmenting the tourist in KGNECC, the management people may best allocate the best

products in accordance to priorities in tourism product delivered and presented. Past research has shown that identifying tourist travel motivations can be a useful and effective approach for determining appropriate visitor opportunities, and further, that heterogeneous tourist segments may be easily categorized by these motivation factors (Poria *et al.*, 2004; Awaritefe, 2003a, 2003b; Keng and Cheng, 1999).

As KGNECC becoming an important attraction to tourism in Malaysia, this study also provides information of different group of tourist about the attraction of wildlife-based tourism and their awareness on elephant conservation. In relation to the nature tourist segmentation, the information should be useful for the manager to develop desired nature activities and educational programmes that are suitable with different group of tourist's interest. In addition, it is important to park managers to know which types of tourists will make revisit the centre. Oppermann (2000) claimed that the degree of tourists' loyalty to a destination is reflected in their intentions to revisit the destination and in their willingness to recommend it to other people to make visitation. Tourists' positive experiences of service, products, and other resources provided by this tourism site may be able to produce repeat visitation as well as positive word of mouth effects to friends and/or relatives. Recommendations by previous visits can be taken as the most reliable information sources for potential tourists.