



UNIVERSITI PUTRA MALAYSIA

***VISITORS' SATISFACTION TOWARDS QUALITY OF ENVIRONMENT,
SERVICES AND FACILITIES PROVIDED IN KILIM KARST GEOFOREST
PARK, LANGKAWI, MALAYSIA***

MOHAMAD SAFEER BIN SAPARI

IKDPM 2014 2



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SERVICES AND FACILITIES PROVIDED IN KILIM KARST GEOFOREST
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By

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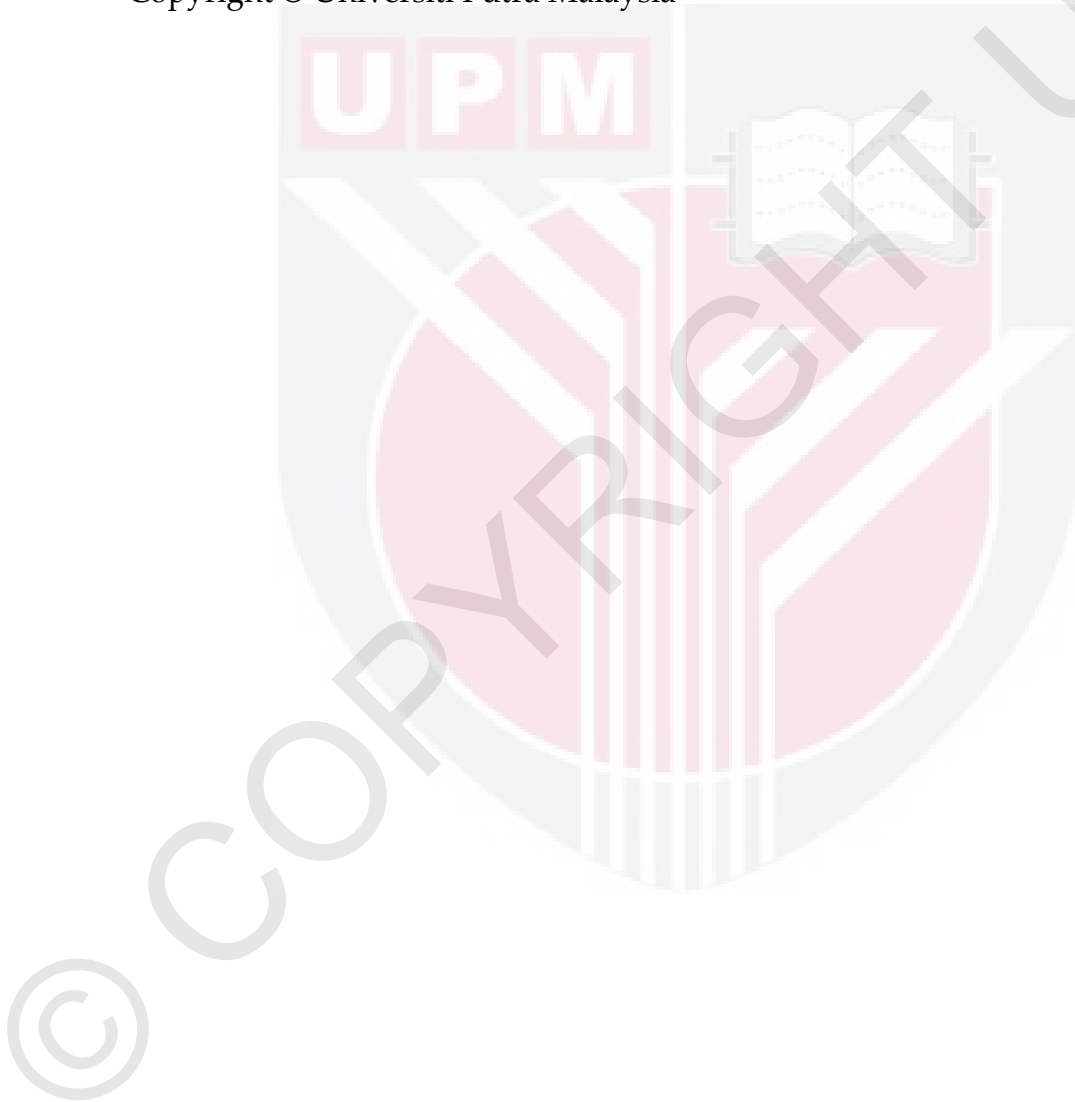
**Thesis Submitted to the School of Graduate Studies,
Universiti Putra Malaysia, in Fulfillment of the
Requirements for the Degree of Master of Science**

May 2014

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

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SERVICES AND FACILITIES PROVIDED IN KILIM KARST GEOFOREST
PARK, LANGKAWI, MALAYSIA**

By

MOHAMAD SAFEE BIN SAPARI

May 2014

Chairman: Ahmad bin Shuib, PhD

Institute: Agricultural and Food Policy Studies Institute (AFPSI)

Kilim Karst Geoforest Park (KKGP) is one of the three Geoparks located in the Langkawi Island that offers nature-based attraction to visitors. Since it was announced as Malaysia's (and Southeast Asia's) first Global Geopark in June 2007 by the United Nations Educational Scientific and Cultural Organization (UNESCO), many of services and facilities development have been implemented to the convenience of visitors at the park. However, several issues have risen from the implementation of development projects in the park for instance, the decline in the quality of the environment, inadequate services and facilities, congestion and interference to local communities due to increases in the number of visitors to the park. Thus, the main objective of this study is to measure the level of visitors' satisfaction towards quality of the environment, services and facilities at KKGP and to determine the attributes that need priority for improvement. Besides, it is also to determine the socio-demographic and visit characteristics of visitors that influence the level of satisfaction.

The gap analysis is used to measure the level of satisfaction by calculating the perceived performance minus the expectation. Visitors would be unsatisfied if the values of expectation are greater than values of perceived performance and vice versa. Visitors' expectation and perceived performance are measured using the 5-point Likert scale ranging from (1) "very unsatisfied" to (5) "very satisfied". This study uses the eco-tourist service quality (ECOSERV) dimension

that has been adapted from service quality (SERVQUAL) dimension to assess the quality of environment, services, and facilities provided at the ecotourism site. Also, the study uses the grid of expectation-performance analysis (EPA) that has been adapted from importance performance analysis (IPA) to identify the attributes that need priority improvement. 400 samples of visitors visiting the park were conveniently selected to respond to the self-administered questionnaire over a two-week period in March 2013.

The results of the study have found that the level of visitors' satisfaction towards the qualities of environment, services and facilities in the park is low. The analysis of the GAP has found that of the 27 attributes, 17 items indicate that visitors are less satisfied of which 6 items need for urgent improvement. In addition, the analysis of the factors influencing the satisfaction levels indicates that female visitors are more dissatisfied than male visitors. Another factor of the effects is the nationality of the visitors in which foreign visitors are more dissatisfied compared to Malaysians. Other socio-demographic and visit characteristics of visitors that influence the levels of satisfaction are, occupation, level of education, travel companions, visit frequency, number of hours at the park and usage of tour package. The findings of the study will be useful for the park management especially for Langkawi Development Authority (LADA) to focus on the product attribute and to determine features that are important and need to be maintained and to be prioritized for improvement. The study also will be help LADA to manage and improve on their weaknesses as stated by visitors, so they could take remedial actions to served the visitors better.

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

**KEPUASAN PENGUNJUNG TERHADAP KUALITI ALAM SEKITAR,
PERKHIDMATAN DAN KEMUDAHAN YANG DISEDIAKAN DI KILIM
KARST GEOFOREST PARK, LANGKAWI, MALAYSIA**

Oleh

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Kilim Karst Geoforest Park (KKGP) merupakan salah satu daripada tiga geo-taman yang terletak di Pulau Langkawi yang menawarkan tarikan berasaskan alam semula jadi kepada pengunjung. Semenjak diistiharkan sebagai geo-taman yang pertama di Malaysia dan Asia Tenggara pada tahun 2007 oleh Pertubuhan Pendidikan, Sains dan Kebudayaan atau *United Nations Educational, Scientific, and Cultural Organization* (UNESCO), banyak pembangunan infrastruktur dan perkhidmatan telah dilaksanakan untuk keselesaan pengunjung di taman tersebut. Namun begitu, beberapa isu telah timbul lantaran daripada pembangunan serta peningkatan kehadiran pengunjung contohnya seperti kemerosotan kualiti alam sekitar, ketidakcekapan perkhidmatan dan kemudahan, kesesakan serta gangguan kepada penduduk setempat. Oleh yang demikian, objektif utama kajian ini adalah untuk mengukur tahap kepuasan pengunjung terhadap kualiti alam sekitar, perkhidmatan dan kemudahan di KKGP serta mengenalpasti elemen-elemen yang memerlukan keutamaan untuk diperbaiki. Selain itu kajian ini juga bertujuan untuk mengenalpasti latar belakang sosio-ekonomi serta ciri-ciri lawatan pengunjung yang mempengaruhi tahap kepuasan.

Kajian ini menggunakan Analisis Jurang (*GAP*) untuk mengukur tahap kepuasan iaitu dengan membandingkan nilai persepsi dengan nilai jangkaan awal. Pengunjung menjadi tidak berpuas hati sekiranya nilai jangkaan awal lebih besar daripada nilai persepsi (nilai negatif) dan sebaliknya. Nilai jangkaan

dan nilai persepsi pengunjung ditentukan dengan menggunakan skala Likert berturutan 5 bermula dari (1) “sangat tidak berpuas hati” hingga (5) “sangat berpuas hati” terhadap 27 elemen yang berkenaan dengan kualiti alam sekitar, perkhidmatan dan kemudahan yang terdapat di KKGP. Untuk mendapatkan elemen kualiti yang merangkumi aspek alam sekitar, perkhidmatan dan kemudahan di kawasan eko-pelancongan, kajian ini menggunakan dimensi kualiti perkhidmatan eko-pelancong atau *eco-tourist service quality (ECOSERV)* yang diadaptasi daripada kualiti perkhidmatan atau *service quality (SERVQUAL)*. Selain itu, kajian ini juga menggunakan analisis grid jangkaan-prestasi atau *grid of expectation-performance analysis (EPA)* yang diadaptasi daripada analisis kepentingan-prestasi atau *importance performance analysis (IPA)* dengan tujuan mengenalpasti elemen alam sekitar, perkhidmatan dan kemudahan perlu diberi keutamaan untuk diperbaiki. Dengan menggunakan teknik persampelan mudah, sebanyak 400 pengunjung yang melawat KKGP telah dipilih untuk menjawab borang soal selidik. Aktiviti pengumpulan data dijalankan selama dua minggu pada bulan Mac 2013.

Hasil kajian mendapati tahap kepuasan pengunjung terhadap kualiti alam sekitar, perkhidmatan dan kemudahan di taman tersebut adalah rendah. Analisis *GAP* mendapati sebanyak 17 elemen mempunyai nilai negatif yang menggambarkan pengunjung kurang berpuas hati. Manakala, dengan menggunakan analisis *EPA*, 6 elemen yang memerlukan tindakan segera untuk diperbaiki. Selain itu, analisis faktor yang mempengaruhi ketidakpuasan mendapati bahawa pengunjung perempuan kurang berpuas hati berbanding dengan pengunjung lelaki. Faktor lain yang mempengaruhi ialah kewarganegaraan pengunjung iaitu, pengunjung warganegara asing kurang berpuas hati berbanding dengan warganegara Malaysia. Lain-lain faktor yang mempengaruhi perbezaan tahap kepuasan ialah jenis pekerjaan, tahap pendidikan, teman lawatan, kekerapan melawat, tempoh masa yang dihabiskan di taman dan penggunaan pakej pelancongan. Hasil kajian ini dapat memberikan maklumat penting kepada pihak pengurus taman terutamanya Langkawi Development Authority (LADA) terhadap produk yang perlu dikekalkan, diberikan perhatian serta diberi keutamaan untuk diperbaiki. Kajian ini juga dapat membantu LADA untuk mengurus serta memperbaiki kelemahan yang terdapat di taman tersebut seperti yang dinyatakan oleh pengunjung agar perkhidmatan dan kemudahan yang selesa dapat disediakan.

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I certify that an Examination Committee met on 09 May 2014 to conduct the final examination of Mohamad Safee Sapari on his thesis entitled "Visitors' Satisfaction Towards Quality of Environment, Services and Facilities Provided in Kilim Karst Geoforest Park, Langkawi, Malaysia" in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U. (A) 106] 15 March 1998. The Committee recommends that the student be awarded the Master of Science.

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LIST OF ABBREVIATIONS

ANOVA	Analysis of Variance
DBMGP	Dayang Bunting Marble Geoforest Park
DBMGP	Dayang Bunting Marble Geoforest Park
ECOSERV	Eco-tourist Service Quality
EDT	Expectancy Disconfirmation Theory
GEPA	Grid of Expectation-Performance Analysis
IGA	Improvement Gap Analysis
IPA	Importance Performance Analysis
ISO	International Organization for Standardization
KKGP	Kilim Karst Geoforest Park
LADA	Langkawi Development Authority
MCGP	Machincang Cambrian Geoforest Park
MKGP	Machinchang Cambrian Geoforest Park
RM	Malaysian Ringgit
SERVQUAL	Service Quality
TIES	The International Ecotourism Society
UNESCO	United Nations Educational Scientific and Cultural Organization
WTO	World Tourism Organization
WTTC	World Travel and Tourism Council

CHAPTER 1

INTRODUCTION

1.0 General Background

The first part of this chapter discusses the overview of tourism and ecotourism in Malaysia, especially in Kilim Karst Geoforest Park (KKGP), as an ecotourism site in Malaysia and the ecotourism development in KKGP. The discussion seeks to identify the problems in KKGP that are related to the environment, services and facilities provided in KKGP. Later, the objectives of the study are formulated based on the problem statements and finally, the significance of the study is discussed in the last part of the chapter.

1.1 Tourism

The word “tourism” is a relatively new term in the English Language, which emerged in the 19th century (Harsell, 1994). Tourism is about the ability of people to escape from familiar surroundings and everyday routine. The tourism sector has become the world’s largest industry in the 20th century. According to the United Nations World Tourism Organization (UNWTO) 2011, the number of tourists increased from 675 million in 2000 to 798 million in 2005 and 940 million in 2010. The worldwide export income generated by inbound tourism, including passenger transportation, exceeded US\$ 1 trillion in 2010 or close to US\$3 billion per day.

The tourism industry encompasses several sub-segments. Generally, tourism can be divided into two, namely, mass tourism and alternative tourism. Weaver (2001) and Rollins, Eagles and Dearden (2009) claim that mass tourism consist of a large number of tourists generally in a staged setting, meanwhile alternative tourism consists of small number of tourists in a natural or cultural setting. Thus, it can be implied that mass tourism involves the participation of a large number of people enjoying tourism in the same place, while alternative tourism involves a small number of tourists who are interested in specific natural or cultural interests.

1.2 Ecotourism

Ecotourism is one of the sub-components of tourism under the scope of nature tourism. The ecotourism sector is also related to other sectors in tourism, for example, rural tourism, geo-tourism, adventure tourism, and so forth. According to Wood (2002), ecotourism has stronger links to rural and cultural tourism than adventure tourism. Generally, ecotourism is associated with nature-based tourism, wildlife tourism, involvement of the local community and sustainable tourism (Ceballos, 1987). The term 'ecotourism' emerged in the late 1980s and it is defined as travelling to relatively undisturbed or unspoilt natural areas with the specific objective of studying, admiring, and enjoying the scenery and its wild flora and fauna, as well as any existing cultural manifestation (both past and present) found in these areas (Ceballos, 1987 in Dimitrios, 1999). There are many definitions of ecotourism since it was first recognized as one of the sectors that have a great potential to generate economic earnings. Appendix 1 shows the definitions of ecotourism that has emerged since the early 1980's until 2002. Recently, according to the International Ecotourism Society (TIES, 1993), ecotourism is defined as "a responsible travel to natural areas, which conserves the environment and improves the welfare of the local people".

Based on all these terms and definitions, as shown in Appendix 1, it can be summarized that ecotourism is associated with nature-based tourism, wildlife tourism, activities that involve the local community and sustainable tourism. Therefore, several elements of "authentic ecotourism" have emerged. Honey (2002), suggested that there are eight characteristics of real ecotourism, namely; travelling to benefit natural areas, minimizing impact on the environment, building environmental awareness, providing direct finances for conservation, providing financial benefits and empowerment to local communities, appreciate local culture, sensitive to the host country's political environment and social climate and support human rights and international labour agreements. Since ecotourism encourages the socioeconomic development of a community, it directly generates profits for the travel market sector. Moreover, according to the International Ecotourism Society (TIES, 2006), about 5% to 10% of the global travel marketplace is dominated by the ecotourism sector.

1.3 Ecotourism in Malaysia

The ecotourism sector in Malaysia has a great potential due to its natural attractions and unique geographical landscape. According to Tourism Malaysia (2008), Malaysia is one of the 12 mega-biologically diverse countries in the world, with a large variety of flora and fauna. As many as 15,000 species of flowering plants, 286 species of mammals, 150,000 species of invertebrates and 4,000 species of fishes, in addition to countless microorganisms, are found in this country (Tourism Malaysia, 2008). Ecotourism in Malaysia has become one of the emerging industries and an important investment for economic growth. According to WTTC (2002), nature-based activities are the fastest growing tourism products in Malaysia. Meanwhile, in 2002 it was estimated that the ecotourism sector in Malaysia grew by 35 percent a year in terms of tourist arrivals and currently makes up 10 percent of the country's tourism revenue (WTTC, 2002).

Since the 1990s, the Malaysian Government has been committed to developing a sustainable nature-based tourism sector that is reflected in its National Ecotourism Plan developed in 1996. The plan is a follow-up to the National Conservation Strategy implemented by the Economic Planning Unit in the Prime Minister's Department (World Travel and Tourism Council, 2002). The 10th Malaysia Plan 2011-2015 emphasizes Malaysia's efforts to improve the sustainability of nature and promote its ecotourism destinations to create commercial value. According to Tourism Malaysia 2008, there are many ecotourism destinations in Malaysia. Appendix 2 shows some the other ecotourism destinations in Malaysia.

1.3.1 Kilim Karst Geoforest Park (KKGP)

The Kilim Karst Geoforest Park (KKGP) is one of three Langkawi Geoparks and is located in the northeast of Langkawi Island. It provides a new experience for visitors who wish to relax and rest while enjoying the nature's beauty. The visitors' wish for adventure is fulfilled via the uniqueness of KKGP, through the unique coastal tropical landscape or 'topography coast', formed about 490 million years ago. The nature-based attraction is the karst landscape and the Kilim Mangrove River, where almost 40% of various mangrove species in the world can be found. The other KKGP attractions are the karst cave, fish farm, fish feeding sessions, eagle watching and bat cave. Furthermore, many

ecotourism activities are held in KKGP; for instance kayaking down the mangrove river forest, camping, and so forth.

According to Tourism Malaysia 2008, KKGP is an ecotourism destination in Malaysia. KKGP's criteria to become an ecotourism destination are that it is completely nature-based, provides job opportunities to local people, and conserves nature. TIES (1993) had highlighted that some of these characteristics do apply to KKGP and it has participated in ecotourism activities. The following characteristics are; it is nature-based, minimizes environmental impact, builds and appreciates environmental and cultural awareness, provides financial benefits and empowerment to the local community, and raises sensitivity about the host countries' political, environmental and social climate.

1.3.2 Ecotourism Development in KKGP

Langkawi Development Authority (LADA) was established in 1990 by the Federal Government and placed under the Ministry of Finance. LADA's role is planning and implementing the development of Langkawi Island as a tourism destination. LADA has taken 11 years to prepare and shape Langkawi Island into a Geopark. Over that period, plenty of projects pertaining to infrastructure and services were planned and implemented in KKGP. There has been significant development in the introduction of facilities and infrastructure for visitors'. Table 1.2 shows the facilities and services available in KKGP.

Table 1.1: Facilities and services provided in KKGP

Facilities	Services
Jetty	Tour boat
Mangrove walk	Tourist guides
Food courts	Help desk
Public toilets	Mobile phone coverage
Prayer rooms	Internet connection
Souvenir shops	Taxi

Since KKGP provides facilities and services for visitors, Tourism Malaysia role is to promote Malaysia as one of its tourism destinations, for example “Malaysia Truly Asia”, to attract tourists to Malaysia, specifically to KKGP. The campaigns implemented by the government have led to a rise in visitor arrivals to KKGP. Increase in visitor arrivals are very significant as seen in the increase of arrivals from 78,145 in 2007 to 273,450 in 2012, as shown in Table 1.3. The increasing number of visitors has created a huge demand for infrastructure, services and facilities in KKGP. Therefore, KKGP’s status as an ecotourism destination has contributed to the development of facilities that provide convenience to visitors. However, the indicators of a successful ecotourism destination are not only about the nature of conservation and about the large number of visitors, but also the need for a better management of services and facilities. The management of these facilities is an integrated approach to operate, maintain, improve, and adapt the buildings and infrastructure of an organization in order to create an environment that strongly supports the primary objectives of that organization (Barrett and Arcese, 1995). Thus, KKGP needs to manage its services and facilities in order to successfully maintain its status as a tourism destination in Langkawi.

Table 1.2: Visitor Arrivals to Kilim Jetty from 2007 to 2012

Year	Local	Foreign	Total
2007	N/A	N/A	78,145
2008	N/A	N/A	167,142
2009	N/A	N/A	115,660
2010	N/A	N/A	117,931
2011	152,797	168,528	321,325
2012	146,468	126,982	273,450

Source: Kilim Village Community Cooperative, (2012)

1.4 Problem Statement

Langkawi has the potential to be a world-class tourist attraction. Today, Langkawi is a tourist destination for local as well as international tourists. In the last few years, tourists’ arrival in Langkawi has steadily increased from 2.11 million to 3.06 million between 2007 and 2012. Due to the increase in the number of tourists to the island, the authorities have taken immediate action to develop infrastructure, tourist attractions, facilities, businesses and services to

satisfy the tourists' needs especially in the three geoforest park sites (Machincang Geoforest Cambrian Park, Kilim Karst Geoforest Park and Dayang Bunting Geoforest Marble Park).

However, according to Johan Affendi and Mohamad Zaki (2007), several issues have arisen from the development in these three geoforest parks, for instance, the declining quality of the environment, congestion and interference to the local community. Moreover, according to the village chairperson (Hanapiah, 2012), presently there are two major issues in KKGP. First, the quality of the environment and second, is the quality of facilities and services. In terms of environmental quality, KKGP is currently moving towards the "yellow card" by UNESCO due to some damages found on the site. The Yellow card means a warning that the place has some degradation or not conserved at all and UNESCO will eventually withdraw the KKGP's status as a Geoforest Park. The main cause of the degradation of the habitat and erosion of the riverbanks in KKGP is due to the inability to regulate the speed of the boats used in the mangrove tours.

In regards to facilities and services, some issues have cropped up in KKGP; for example parking space. The limited parking space is due to traffic congestion and an increase in the number of vehicles in KKGP. Moreover, according to the village chairman (Hanapiah, 2012); there are complaints from visitors about the pricing, services offered and the environmental quality of KKGP. The complaint from local visitors mainly touched upon the high price of package tours. Meanwhile, complaints from international visitors were related to the erosion of riverbanks, insufficient time for mangrove tours and the unfriendly attitude of some boatmen. In addition, according to Jamil and Badaruddin, (2006), several issues have been suggested as the cause of tourist dissatisfaction; these include the increase in seasonal tourists, thus increasing expenditure costs, which negatively impacts repeat travel; historical tourism products are disappearing and not preserved, especially in these three geoforest park sites.

Thus, a study about visitors' satisfaction towards environmental quality, services and facilities is important in determining the weaknesses and strengths of ecotourism development in KKGP. Moreover, the term 'satisfaction' is the most important issue in tourism business as it can determine the success and failure of a business organization. According to Yooshik and Muzaffer (2003),

satisfaction plays an important role in planning marketable tourism products and services because it influences the choice of destinations, the consumption of products and services and the decision to return (Kozak & Rimmington, 2000). Moreover, Yu and Goulden (2006) suggested that understanding the tourists' satisfaction in a tourism destination is necessary for the purpose of improving products and services and effectively promoting it to target markets.

1.5 Research Objective

The main objective of this study is to examine visitors' satisfaction on ecotourism development in KKGP. Meanwhile, the specific objectives are:

1. To identify visitors' expectations and perceived environmental quality, services and facilities provided in KKGP;
2. To evaluate visitors' satisfaction towards the environmental quality, services and facilities provided in KKGP;
3. To identify the attributes of the environment, services and facilities that need to be improved by using the grid of expectation-performance analysis (EPA); and
4. To determine the socio-demographic and visit characteristics of visitors that influence the level of satisfaction.

1.6 Significance of the Study

A study of visitors' satisfaction pertaining to ecotourism development in KKGP will produce numerous benefit indicators especially for those who have an interest in the tourism sector, such as LADA and non-government organizations (NGOs). The positive expectation of satisfied visitors would bring success to the local businesses. These visitors' would likely repurchase (revisit) and recommend these products to their families, relatives and friends. Therefore, it is critical to study the visitors' expectations in order to address their needs while in KKGP.

This study allows the parks' management i.e. LADA to focus more on product attributes and features that are important in a product. Improvement is essential in maintaining or enhancing the strengths and eradicating the weaknesses mentioned by the visitors in order to provide better services. Moreover, it is used as a reference and guideline to help not only KKGP but also other existing

and new agencies that are in the same predicament. It is very important to initiate improvements that eventually help meet the demands of the visitors.

The actual data, which is contextual or situational data, is used in the study, compared to the use of contrived data. Primary data were obtained directly from actual visitors who visited KKGP. Therefore, the contribution from this study can be used to expand the corpus of knowledge about park visitors and render a basis for future areas of research. Besides, the study uses 3 methods namely; GAP analysis, EPA and regression analysis to portray the significance of analysing the satisfaction of tourists in ecotourism development.



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