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RURAL TOURISM DEMAND OF INTERNATIONAL VISITORS TO THE KILIM KARST GEOFOREST PARK, LANGKAWI, MALAYSIA

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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

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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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Chair: Ahmad bin Shuib, PhD

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Rural tourism provides opportunities for visitors to visit rural attractions available in a rural area. Kilim Karst Geoforest Park (KKGP) which is located in a rural setting offers rural tourism experience to visitors. It is chosen as the study site in the present study because it is one of the three parks located in the Langkawi Island that has been granted geopark status by the United Nations Educational, Scientific, and Cultural Organization in 2007. The high number of international visitor arrivals to the park has induced the need to identify the factors influencing their visitations to the park. Besides that, whether the visitors to the park obtain benefits from their visit is unknown. And, the intangibility nature of the products and services offered at the park has necessitated the need to determine the economic value of the park.

The objective of the study is to identify the socio-demographic and characteristics of visits of international visitors. Besides, to identify the factors influencing the rural tourism demand of international visitors to the Kilim Karst Geoforest Park, Langkawi and to determine the economic value of the park. Rural tourism demand model for the park has been developed using one of the popular environmental valuation techniques which is the Travel Cost Method. Both types of TCM methods the zonal and individual travel cost (ZTCM, ITCM) have been utilized in the study. The differences between the two methods are, for ZTCM demand is based from the particular zones, whereas for ITCM, it is based from the individuals who have visited the site only.

The modification of the basic TCM model has taken into account other demand shifting variables besides the travel cost in the model. This is to overcome the problem of either underestimating or overestimating of the consumer surplus. The variables are

onsite cost and time, cost to alternative site, quality of site, WTP and socio demographic variables constituting of age, gender, education level, and gross monthly income of the visitors. Structured questionnaire and face-to-face data collection method are employed to obtain the primary data from 330 international visitors for two weeks at the park and Langkawi international airport. The respondents are chosen based on the convenient sampling technique. However, only 300 samples are used for further analysis due to inadequate information accumulated from the respondents.

In terms of choosing appropriate individual as respondent, guidelines are adhered to. Firstly, international visitors are asked about their nationality. This is because there is a major confusion in identifying whether the visitors are local or international visitors particularly visitors from China, Korea, Japan, India, and Indonesia. Besides, only the head of the group is selected as the respondent to avoid double counting of respondents. Average time incurred for the survey is about 10 – 15 minutes. There are six main elements in the designed questionnaire namely the record item, travel information, travel and on-site cost, quality of the site, willingness to pay (WTP) and finally, socio – demographic information. The instrument of study; the questionnaire is designed only in the English language. The reason is that the English language is an internationally recognized language. Hence, it will be a good medium to obtain higher response rate from the respondents.

The Poisson regression analysis is conducted to estimate the ITCM model using the Limited Dependent models (LIMDEP) software, version 4. On the other hand, the Ordinary, Least Square (OLS) regression analysis is conducted for the ZTCM models using the Statistical Package for Social Science (SPSS), version 21. The findings show that for ZTCM, the economic value is estimated to be at €64 million using the Kilim hour's model. On the other hand, the economic value for the Langkawi and Kilim satisfaction model could not be determined because the travel cost variable is found to be insignificant. For ITCM, the economic value is estimated to be at €296 million, €82 million, and €27 million for Langkawi, Kilim satisfaction and hour's models respectively. The findings of the study will be useful for the management of the park to make any justifications regarding the spending for the park and in making appropriate decisions concerning to the development of the rural tourism in the park.

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

PERMINTAAN BAGI PELANCONGAN DESA OLEH PELAWAT ANTARABANGSA KE KILIM KARST GEOFOREST PARK, LANGKAWI, MALAYSIA

Oleh

NITANAN KOSHY A/L MATTHEW

Mei 2014

Pengerusi: Ahmad bin Shuib, PhD

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Pelancongan desa memberi peluang pengunjung untuk melawat tarikan luar bandar di kawasan luar bandar. Kilim Karst Geoforest Park (KKGP) yang terletak di dalam persekitaran luar bandar menawarkan pengalaman pelancongan desa kepada pelawat. Ia telah dipilih sebagai tapak kajian kerana ia merupakan salah satu daripada tiga taman di Pulau Langkawi yang telah diwartakan sebagai tapak warisan dunia oleh Pertubuhan Pendidikan, Saintifik dan Kebudayaan Bangsa-Bangsa Bersatu atau *United Nations Educational, Scientific, and Cultural Organization* (UNESCO) pada tahun 2007. Jumlah bilangan kedatangan pelawat antarabangsa yang ramai ke taman tersebut telah mendorong kepada keperluan untuk mengenalpasti faktor – faktor yang mempengaruhi lawatan mereka ke taman tersebut. Selain itu, sama ada para pengunjung memperolehi manfaat dari lawatan mereka tidak diketahui. Dan, ciri-ciri 'intangibility' produk dan perkhidmatan yang ditawarkan di KKGP telah membawa kepada keperluan untuk menentukan nilai ekonomi taman tersebut.

Objektif kajian adalah untuk mengenalpasti mengenalpasti sosiodemografi dan ciri-ciri lawatan pelawat antarabangsa. Selain itu, untuk mengenal pasti faktor-faktor yang mempengaruhi permintaan pelancongan desa pengunjung antarabangsa ke Kilim Karst Geoforest Park, Langkawi (KKGP) dan untuk menentukan nilai ekonomi taman tersebut. Di dalam kajian ini, model permintaan pelancongan desa telah dibentuk dengan menggunakan salah satu daripada teknik-teknik penilaian alam sekitar yang popular iaitu kaedah kos perjalanan. Kedua-dua kaedah bagi kaedah kos perjalanan iaitu Kos Perjalanan berdasarkan Zon atau *Zonal Travel Cost Method (ZTCM)* dan kaedah Kos Perjalanan berdasarkan Individu atau *Individual Travel Cost Method (ITCM)* telah digunakan dalam kajian ini. Perbezaan antara kedua-dua kaedah ini adalah bagi kaedah *ZTCM,* permintaan adalah berasaskan kepada zon-zon tertentu,

iv

manakala bagi kaedah *ITCM* permintaan adalah berasaskan individu yang khusus melawat KKGP sahaja. Pengubahsuaian model asas *TCM* turut mengambil kira pembolehubah-pembolehubah lain selain daripada kos perjalanan. Ini adalah untuk mengatasi masalah terlebih atau terkurang dalam penganggaran lebihan penggguna. Pembolehubah-pembolehubah yang lain adalah seperti perbelanjaan yang dilakukan serta jumlah masa yang dihabiskan di taman tersebut, kos untuk ke lokasi alternatif, kualiti taman, kesanggupan membayar, pembolehubah demografi seperti umur, jantina, tahap pendidikan, dan pendapatan kasar bulanan pengunjung.

Borang soal selidik berstruktur dan kaedah pengumpulan data bersemuka telah digunakan untuk mendapatkan data primer dari 330 pengunjung antarabangsa di KKGP dan lapangan terbang antarabangsa Langkawi selama dua minggu. Responden telah dipilih berdasarkan teknik persampelan mudah. Namun, hanya 300 sampel sahaja yang telah digunakan untuk dianalisis kerana maklumat yang diberikan oleh responden tidak lengkap. Beberapa kriteria tertentu telah digunakan dalam pemilihan responden dalam kajian ini. Pertama, pengunjung antarabangsa ditanya mengenai kewarganegaraan mereka. Ini adalah kerana terdapat kekeliruan utama dalam mengenal pasti sama ada mereka adalah pengunjung tempatan atau antarabangsa. Ini terutamanya, pengunjung daripada negara China, Korea, Japan, India, dan Indonesia. Selain itu,hanya ketua kumpulan sahaja yang dipilih sebagai responden untuk mengelak daripada mendapat data yang sama. Purata masa yang terlibat bagi kajian ini adalah kira-kira 10-15 minit. Borang soal selidik yang direka mengandungi 6 bahagian iaitu lokasi kajian, maklumat perjalanan, kos yang ditanggung untuk ke KKGP serta semasa berada di KKGP, kualiti taman, kesanggupan untuk membayar dan sosiodemografi.

Analisis regresi Poisson dijalankan untuk menganggarkan model *ITCM* dengan menggunakan perisian *Limited Dependent Model (LIMDEP)* versi ke-4. Sebaliknya, analisis *Ordinary Least Square Regression (OLS)* telah dijalankan bagi model *ZTCM* dengan menggunakan pakej statistik untuk sains sosial, *Statistical Package for Social Sciences* (SPSS) versi ke-21. Dapatan kajian menunjukkan bahawa, bagi *ZTCM,* nilai ekonomi yang dianggarkan ialah sebanyak €64 juta dengan menggunakan model masa Kilim. Sebaliknya, nilai ekonomi bagi model kepuasan Kilim dan model Langkawi tidak dapat ditentukan kerana pembolehubah kos perjalanan didapati adalah tidak penting atau tidak mempengaruhi lawatan ke taman tersebut. Seterusnya, bagi *ITCM* pula, nilai ekonomi yang dianggarkan ialah sebanyak €296 juta, €82 juta dan €27 juta bagi model Langkawi dan KKGP yang diukur berasaskan kepuasan dan jumlah masa yang dihabiskan di KKGP. Dapatan kajian ini amat berguna kepada pihak pengurusan taman untuk membuat sebarang justifikasi mengenai perbelanjaan serta pembangunan pelancongan desa di taman tersebut.

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I certify that a Thesis Examination Committee has met on 22 April 2014 to conduct the final examination of Nitanan Koshy A/L Matthew on his thesis entitled "Rural Tourim Demand of International Visitors to the 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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Declaration by graduate student

I hereby confirm that:

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This is to confirm that:
- the research conducted and the writing of this thesis was under our supervision,
- supervision responsibilities as stated in Rule 41 in Rules 2003 (Revision 2012-2013) were adhered to.

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Chairman of Supervisory Committee:		Member of Supervisory Committee:	

Signature	_____
Name of	SYAMSUL HERMAN BIN MOHAMMAD AFANDI
Member of Supervisory Committee:	

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

CS	Consumer surplus
CVM	Contingent Valuation Method
EUR	Euro
ITCM	Individual Travel Cost Method
KKGP	Kilim Karst Geoforest Park
KLIA	Kuala Lumpur International Airport
LIMDEP	Limited Dependent Model
LM	Linear model
MDT	Multi-destination trip
MYR	Malaysian ringgit
OLS	Ordinary Least Square
RP	Revealed preferences
SP	Stated preferences
SPSS	Statistical Package for Social Sciences
TCM	Travel Cost Method
TEV	Total economic value
US	United States
WTO	World Tourism Organization
WTP	Willingness to pay
WTTC	World Travel and Tourism Council
ZTCM	Zonal Travel Cost Method

CHAPTER ONE

INTRODUCTION

1.0 General background

The first part of this chapter discusses tourism development in Malaysia, the island of Langkawi and rural tourism development in Kilim Karst Geoforest Park. Next, the various purposes of economic valuation based on past literatures are explored. The specific problems in the park related to economic valuation at a micro level that focuses on the benefits obtained by the visitors at the park are discussed exhaustively. Later, the objectives are drafted based on the problem statement as shown. Finally, the importance of the study is discussed in the final part of the chapter.

1.1 Tourism

According to the World Travel and Tourism Council (2011), tourism is one of the world's largest economic sectors. It contributes trillions of dollars annually to the world's Gross Domestic Product (GDP). The tourism sector generates job opportunities and wealth, increases exports, boosts tax revenue and attracts capital investment. The World Travel and Tourism Council (2011) claims that travel and tourism sector supplies more than 260 million jobs worldwide. Furthermore, it is estimated that the industry contributed almost US$6 trillion or 9% of the world's Gross Domestic Product (GDP) in 2011. The tourism sector in Malaysia emerged in the late 1960s, (World Travel and Tourism Council, 2002). It was developed by the federal government of Malaysia in 1987 as a major economic sector to stimulate economic growth and employment, particularly in rural areas (Hjulmand, Nielsen, Vesterlokke, Busk, & Erichsen, 2003). At present, Malaysia is among the top most demanded tourism destination in the world. Malaysia is ranked 10th in tourist arrivals and 15th in terms of world tourism receipts (Economic Transformation Program, 2011). More specifically, the Malaysian tourism sector stands as the seventh largest contributor to the nation's Gross Domestic Product. International tourist arrivals to Malaysia increased from 16.4 million in 2005 to 25.03 million in 2012 followed by an increase in tourism receipts from RM 32 billion in 2005 to RM 61 billion in 2012.

1.2 Tourism development in Langkawi

Table 1.1 below shows the chronology of tourism development in Langkawi beginning from 1987 until 2007. Before 1987, the local community in Langkawi relied predominantly on the agriculture and fishery industries as their primary source of income, despite some of them being involved in tourism activities (Sharina et al., 2011).

The development of tourism in Langkawi began after the declaration of Langkawi as a duty free Island in 1987. Following the declaration, there was a huge increase in the number of visitors arriving in Langkawi, from 310,004 in 1987 to 1.8 million arrivals in 2005 (Langkawi Development Authority, 2012). Moreover, it was found that from 1988 – 1992 the private sector had invested in 106 tourism projects in Langkawi that amounted to RM 1 billion, (Marzuki, 2011). Consequently, there was an increase in the number of hotel rooms in Langkawi from 859 in 1988 to 7072 in 2005 (Marzuki, 2011). Tourism development in Langkawi was further enhanced through the formation of the Langkawi Development Authority (LADA) on 15 March 1990 by the federal government (Ibrahim & Ahmad, 2011). The roles of LADA (as obtained from the official website of LADA, 2012) are as follows:

- To encourage, stimulate, accelerate, and implement socioeconomic development in areas under the auspices of LADA.
- To promote and develop the tourist destinations and tax-free zones in Langkawi
- To stimulate, implement and accelerate the development of tourism, infrastructure, accommodation, agriculture, trade and industry
- To co-ordinate the performance of development activities

Finally, there is a move towards ecotourism and knowledge based tourism in Langkawi following the declaration of Langkawi as the 52nd Global Network Geopark member by the United Nations Educational and Scientific Organizations (UNESCO) in 2007. Langkawi is the only listed Geopark in Malaysia and one of 89 global Geoparks across 27 countries in the world (UNESCO, 2012). The three Geoparks in Langkawi comprises the Kilim Karst, Dayang Bunting Marble and the Machinchang Cambrian Geoforest parks. The Global Geoparks Network (GGN) (2009) defines geoparks as a nationally protected area containing a number of geological heritage sites of particular importance, rarity, or aesthetic appeal. These earth heritage sites are part of an integrated concept of protection, education, and sustainable development.

The federal government has recently decided to upgrade the tourist infrastructures in Langkawi after a lapse of several years. The government has allocated approximately RM 420 million to redevelop the infrastructure in Langkawi under the Langkawi Five Year Tourism Development Master Plan (2011 – 2015).

Table 1.1: Evolution of Tourism Development in Langkawi

Year	Socio-economy	Descriptions
Before 1987	Agriculture and Fisheries	Before the declaration by the federal government as a tax-free zone
1987	Local entrepreneurship and tourism	Declaration by the federal government as a tax-free zone
2007	Ecotourism and knowledge based tourism	Declared as a Geopark (Machinchang Cambrian, Kilim Karst and Dayang Bunting Marble Geoforest Parks)

Sources: Adapted from Sharina, Ibrahim, Hood, and Mustaffa (2011)

Table 1.2 below shows continued increase in visitor arrivals to Langkawi from 2006 – 2012. The total arrivals had increased from 17.55 million in 2006 to 25.03 in 2012. This shows an increase of arrivals of 7.8 million or (30%).

Table 1.2: Visitor Arrivals (million) to Langkawi from (2006-2012)

Year	2006	2007	2008	2009	2010	2011	2012
Visitor arrivals	17.55	20.97	22.05	23.65	24.58	24.71	25.03

1.3 Rural tourism in the Kilim Karst Geoforest Park, Langkawi

The definition of rural tourism within the context of the KKGP is as follows:

Rural tourism in Kilim takes place in a rural setting surrounded by ancient limestone formed millions of years ago. The availability of pristine resources such as the mangrove swamps and limestones in Kilim enhances the potential of developing tourism in the park. The rural fishing community in Kilim headed by the *Koperasi Komuniti Kampung Kilim Langkawi Berhad* helps manage the rural tourism activity in the park. The development of rural tourism in Kilim gives the visitors an opportunity to view the resources available in the rural area. More crucially, the development of rural tourism is seen as a potential tool to enhance the standard of living of the local community in Kilim village. From an economic perspective, the development of rural tourism offers, both, full time and part time employment for the rural population there. The fishermen who are registered with the cooperative can bring along their own boats and ferry visitors around the park for a fee. Some of the men from the village work as tour agents, while, the women folk are also involved in rural tourism as staff of the Kilim cooperative, tour agents and small-time entrepreneurs running small cafes and souvenir shop businesses.

3

Meanwhile, this venture provides additional income for the rural local community in Kilim. Referring to Utusan Malaysia (2012), tourism development in Kilim began in 2010 with the formation of *Koperasi Komuniti Kampung Kilim Langkawi Berhad* with 53 members comprising mainly fishermen. The cooperative manages and runs the rural tourism business under the direct supervision of LADA. Thus, the cooperative is responsible for submitting all pertinent reports and data such as visitor's arrival data, number of cooperative members involved in tourism activity, income generated from tourism, discussion of issues pertaining to rural tourism development at the park etc.

The role of LADA in rural tourism development at the park is as follows. In a conversation with M.Zuhri, head of the monitoring and enforcement unit of the Geopark Division on 29 June 2012, he has mentioned that LADA is responsible for remunerating allocations from the federal government for the development of infrastructure and signage in the park. LADA is also responsible for promoting the KKGP, both locally and abroad. In addition, LADA also organizes familiarity trips, where travel agents from around the world are given an opportunity to visit KKGP at a very low cost in a hope that the agents would promote the beauty and pristine resources available at the park to their respective countries.

The next section discusses the role of the federal government. Recently, the Prime Minister launched both the Geopark Discovery Centre and the Kilim project, which was expected to cost more than RM 20 million, (New Straits Times, 2012). Apart from that, RM 13 million is allocated for the discovery center. The discovery centre functions as an archive and reference center that provides information on geology, flora and fauna, socio-cultural and international aspects about geoparks in Langkawi. Among the plans under the Kilim project is the upgrading of the visitor's facilities in Kilim jetty and the mangrove swamp areas and to relocate the facilities for fishermen at the jetty (New Straits Times, 2012). Both projects are expected to begin on February 2013 and be completed by 2015.

Table 1.3 below shows an increase in the total number of visitors arriving in 2006, from 42,375 to 273,450 in 2012. Nonetheless, the accuracy of the data shown in the table is questionable because the visitor arrivals data was only properly recorded beginning from 2011 (S. Siti, personnal communication, March 29, 2012). In 2011, out of 321,325 visitors to the park, 168,528 were international visitors whereas 152,797 were local visitors. Next, in 2012, out of 273,450 visitors to the park 126,982 were international visitors whereas 146,468 were local visitors.

Table 1.3: Total Visitor Arrivals to the KKGP from (2006 – 2012)

Year	2006	2007	2008	2009	2010	2011	2012
Visitors	42,375	78,145	167,142	115,660	117, 931	321, 325	273, 450

Source: Langkawi Development Authority LADA (2012)

Hence, since specific information on the number of international visitor arrivals to the park from 2006 to 2010 is unknown, therefore, based on the proportion in 2011 and 2012, an assumption is made that they constitute 50% of the total visitor arrivals recorded. Table 1.4 shows the trend of international visitor arrivals to the park. There is an increasing trend from 2006 to 2008, followed by a drop in arrivals in 2009 by 25,741. Later, the arrivals increased by 110,698 from 2009 until 2011 followed by a decrease in arrivals in 2012 by 41,546. An increase in arrivals of international visitors from 2006 to 2012 (83%), necessitates the need to identify factors influencing the demand of international visitors to KKGP. Moreover, based on the demand curve, the monetary value of the benefits gained by international visitors to the park will be determined using the concept of consumer surplus to imply the importance of the park to the users.

Table 1.4: International Visitor Arrivals to the KKGP from (2006-2012)

Year	2006	2007	2008	2009	2010	2011	2012
International Visitors	21,188	39,073	83,571	57,830	58,966	168,528	126, 982

1.4 Economic valuation

Economic valuation of tourism can be done at two levels - the macro and micro levels. At the macro level, studies will focus on the economic impact of tourism development in terms of employment creation, income effects, business opportunities etc. Analyses focusing on the micro effects will determine the values or the satisfaction of the tourists when visiting and using the facilities at the destination. Ahmad (2011) who did a study on the value of outdoor recreation in Langkawi pointed out the various usefulness of economic valuation. Firstly, it could be used to determine an appropriate fee (entrance fee) for the usage of recreational facilities as the proxy for the price of goods due to the public good nature of the non-market goods. Secondly, the valuation could be used to determine the value of the facilities available at the destination. That information would be beneficial for facility planning purposes by the state government.

5

Besides, the quantitative value could be used to justify investment worthiness of public funds for tourism development in a destination. For instance, Gurluk and Rehber (2008), in their study found that the economic value of the Kuscenneti National Park (KNP) located in Turkey (US$ 103,320,074) was higher than the cost of the annual operating expenditures and investments in KNP. Thus, government spending towards Kuscenneti National Park (KNP) was worthwhile. Next, the quantitative value can be used to highlight the role and benefits of a particular tourism site instead of introducing some other forms of alternative developments. Furthermore, the quantitative estimates of a particular tourism destination can be used to implement pricing schemes and management decision-making, which in turn can efficiently allocate the resources available at a particular site.

Apart from all the usefulness of economic valuation indicated by Ahmad (2011), the quantitative value can also be used to justify the need to protect the wildlife and marine life. Becker, Inbar, Bahat, Choresh, Ben and Yaffe (2005) in a study to estimate the economic value of viewing griffon vultures at Gamla Nature Reserve in Israel indicates that the quantitative value of the reserve can be used to convince policy makers regarding the necessity for further investment to protect the Eurasian griffon vulture species. On a similar note, Chae, Wattage, and Pascoe (2012) states that the findings of the quantitative value of a marine protected area in Lundy (England) will be useful to convey a strong economic justification for the designation of Marine Protected Areas (MPAs) and the conservation of the area.

The present study focuses specifically on the determination of benefits gained (consumer surplus) by international visitors using the travel cost method (TCM), which is one of the popular environmental valuation techniques. Predominantly, most applications using the TCM entail domestic visits whereby the mode of travel is predominantly by car. Limited studies have extended the method to determine the benefits gained by the international visitors, who mostly travel by plane. The possible challenges when determining benefits obtained by international tourists as pointed out by Carr and Mendelsohn (2003) are as follows. Firstly, the underlying assumption in most of the travel cost literatures that the cost per mile is constant is not applicable for visitors using flights as the mode of travel. Next, many of the international tourists who visited the site had subscribed to tour packages. Consequently, the travel cost incurred by them could not be accurately identified. Therefore, some of them might have visited using promotional fares, which do not have a standardized fare for visitors who might have a similar holiday itinerary. Finally, there is no information available on the actual fare from countries with zero observed visitors.

Menkaus and Lober (1996) highlighted the importance of determining the benefits gained by international visitors who had the chance to view valuable and scarce natural

6

resources at the park. Carr and Mendelsohn (2003) who studied the Great Barrier Reef in Australia pointed out that the willingness of international tourist to travel great distances to international sites reflects that the site is highly valued by them.

1.5 Problem statement

International visitors' arriving at KKGP had reduced by 25% from 168,528 in 2011 to 126, 982 in 2012. In 2011, the number of international visitor arrivals exceeded the arrival of local visitors (152,797). However, in 2012, the arrival of international visitors was lower than the arrival of local visitors (146,468). Furthermore, an increase in arrivals of international visitors from 2006 (21,188) to 2012 (126,982) was about (83%), thus necessitating the need to identify factors influencing the demand of international visitors to KKGP. Pertaining to this, very few studies have been conducted to determine the demand of international visitors to the park.

Thus, whether the visitors to the park obtain benefits from their visit is unknown. This necessitates the need to determine the benefits gained by the international visitors, who usually incur more travelling expenses as compared to the locals going to the park. A. N. Hanapiah (personal communication, July 27, 2012), the chairperson of *Koperasi Komuniti Kampung Kilim Berhad*, said that generally, international visitors were satisfied with their rural tourism experiences at the park. Nevertheless, the benefits gained by international visitors have not been shown quantitatively. M. Zuhri the manager of the forestry conservation unit in Lada has also indicated that limited studies have been done to determine the benefits acquired, specifically from international visitors, based on a proper economic analysis.

The estimation of the value of the park, which is a protected area, is crucial to politicians, public and policy makers. Our government has decided to spend RM 7 million for the tourism development of the park (New Straits Times, 2012). Thus, justification on the worthiness of government investment is crucial.

Preservation of resources is carried out in the park, particularly the limestone and mangrove swamps, through rural tourism businesses instead of some other development alternatives, such as industrial development or timber industries. For example, the limestone available in the park can be used as building material, cement, or mortar used in the manufacture of ceramics, as cheap fillers used as fillers in some plastics and in the construction of roads. Since products and services offered at KKGP are intangible by nature the monetary value of the park is unknown for any justification to be made.

Limited studies have been conducted to determine the economic value of the park and one of these studies had determined the economic value of the park (Faizah, 2011). The study found the economic value of the park to be RM 2, 886, 542 in 2008, using the Contingent Valuation Method (CVM).

In terms of the methodological gap in Malaysia and based on past literature, limited studies have employed the TCM to determine the benefits obtained by international visitors. The only study that employs the ZTCM to determine the benefit obtained by international visitors is by Siti (2009). On the other hand, only two researchers employ the ITCM (Siti, 2009 & Suryani, Sanusi, & Kamil, 2012). This shows that the utilization of both models to determine the benefit obtained by international visitors to Malaysia is still very limited. Therefore, this study will add to the present literature by employing both methods to bridge the gap between those methods despite having different implications.

In order to determine benefits of the park, a demand function must be estimated for which the consumer surplus is derived to indicate the benefit.

1.6 Objectives of the study

1.6.1 General objective

The study intends to determine the rural tourism demand of international visitors to KKGP and the economic value of the park. Hence, in order to fulfill the general objectives, specific objectives have to be achieved initially.

1.6.2 Specific objectives

1. To identify the socio-demographic and characteristics of the visits of international visitors to the Kilim Karst Geoforest Park.
2. To determine the factors influencing the rural tourism demand of international visitors to Kilim Karst Geoforest Park.
3. To determine the economic value of Kilim Karst Geoforest Park.

1.7 Significance of the study

1.7.1 Federal Government and the Langkawi Development Authority (LADA)

The findings pertaining to the economic value of KKGP will be useful for the federal government to justify the allocations given for rural tourism development for the park under the Langkawi Five Year Tourism Development Master Plan (2011 – 2015) to the opposition party, politicians, and the community. The findings from the study will also be useful for LADA in making appropriate decisions concerning rural tourism development in Kilim. For instance, the findings about the characteristics of the visit, the visit pattern, the proportion of visitors from the main cities around the world, etc, will be useful for LADA when marketing the park to the international market. Furthermore, the present study will give an indication to LADA on the benefits obtained by international visitors to the park using the concept of consumer surplus. If the benefits gained are high, the influential factors on the demand for the park should be identified to further enhance those factors and likewise, if the benefits are low, the contributing factors should be identified, remedied, and rectified to further enhance the benefits and perceptions of the visitors on the park.

1.7.2 Other stakeholders and conservation of resources in the park

The findings of the study, specifically pertaining to the economic value of the park, will alert the community regarding the importance of conserving the natural resources available at the park. Any failure to conserve the natural resources will lead to depletion and eventual destruction of these resources, consequently, jeopardizing rural tourism in the park. Besides, these findings will help in justifying the utilization of park land for rural tourism development purposes that indirectly ensures the continued existence of the resources available at the site instead of utilizing it for any other form of alternative development that will eventually lead towards the damage and destruction of the natural resources available at the KKGP.

1.7.3 International visitors

The utilization of the findings of the study by Federal Government and LADA would capture the need of international visitors visiting the park. Consequently, it is hoped that upcoming visitors obtain more satisfaction from the visit.

1.7.4 Academic contribution

Very few studies have utilized the Travel Cost Method to develop the demand model of international visitors to the park. This relates to many issues in TCM concerning international visitors and the underlying assumptions in most of the travel cost literature such as cost per kilometre is a random variable, use of tour packages and promotional fares.

1.7.5 Literature

This study will add on to the present literature on developing the demand model specifically for international visitors. Besides, the present study contributes towards the determination of the economic value of a specific site. For example, KKGP is one of the many attractions in Langkawi. Therefore, the travel cost attritutable to KKGP is determined through apportionate of time and satisfaction. Finally, an inclusion of the willingness to pay as an independent variable in the demand model results in the derrivation of the true or actual demand curve of the park.

1.8 Organization of the thesis

The first half of the study consists of three chapters, which provide a framework to understand, identify, and determine the economic value of KKGP. Chapter 1 introduces an overview about the tourism development in Malaysia, Langkawi and specifically the rural tourism development at KKGP. Later, the statements of problem and the objective of study that is developed based on the problem are shown. The chapter ends with some discussions about the significance of the study to the relevant authorities.

Chapter 2 discusses the literature rewiew. The chapter begins with the discussions about the theoretical framework of the study. The chapter reviews the literatures on valuation of resources at a particular site. A discussion in chapter 3 begins with the backgrounds of the KKGP. Later, the demand model for the KKGP would be shown, followed by the explanations about each of the variables used in the model. The chapter ends with the discussion about the sampling and survey procedures.

The remaining are chapters 4 and 5. Chapter 4 covers data analysis and discussion. The final chapter of the thesis discusses about the summary of findings and recommendations.

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135

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