

# ESTIMATING THE VALUE OF ADVENTURE TOURISM RESOURCES USING TRAVEL COST METHOD IN KAMPAR, PERAK, MALAYSIA

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By

**ZULKIFLI BIN MOHAMED** 

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

October 2018

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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

# ESTIMATING THE VALUE OF ADVENTURE TOURISM RESOURCES USING TRAVEL COST METHOD IN KAMPAR, PERAK, MALAYSIA

By

#### ZULKIFLI BIN MOHAMED

October 2018

## Chairman : Associate Professor Syamsul Herman Mohammad Afandi, PhD Faculty : Economics and Management

The adventure tourism industry in Kampar is highly dependent on its non-market goods, which in this case, is the natural resources that provide outdoor adventure experiences. Being endowed with abundant natural resources such as caves, rivers, waterfalls, and forests, Kampar has undoubtedly become one of the best destinations for adventure tourism in Malaysia. From 2016 to 2017, the Perak state government had spent a total of RM 25.5 million in the upgrading, maintenance and promotion of tourism products in Perak. On top of that, the local government had also allocated RM 53.52 million in its plan of developing Kampar as an important hub for eco-adventure tourism in Perak (Rancangan Tempatan 2030). Kampar had also been chosen as one of the 60 pilot ecotourism clusters under the National Ecotourism Plan (2016-2025) that focused on adventure tourism activities. Since the government and the stakeholders had invested heavily in developing, maintaining and promoting Kampar as an adventure destination, therefore a study must be conducted as a means of estimating the economic value of adventure tourism resources and for the justification of the money and efforts spent by all related parties. Hence for the purpose of this research, the Individual Travel Cost Model (ITCM) had been utilised to meet the above objective.

The study was conducted via face-to-face interviews with domestic visitors who had participated in at least one of the adventure tourism activities that are available in Kampar. The on-site data from 305 adventure tourists were collected and analysed by using linear regression. Based on the results, it can be concluded that the adventure travellers to Kampar not only consisted of the middle class and those with a high level education, they were also predominantly

Malay and Chinese and within the 21-40 age group who mainly came from Perak, Selangor and Kuala Lumpur.

The study revealed that the number of visits to Kampar was seen to be positively and significantly influenced by several variables such as individual travel cost, tour cost, and ethnicities. The findings revealed that, the consumer surplus value per trip per person to Kampar had been RM 452.48. Therefore, the economic value of the adventure tourism resource in Kampar for the year 2016 was estimated to be RM 20,064,320.64.



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

## MENGANGGAR NILAI SUMBER PELANCONGAN CABARAN MENGGUNAKAN KAEDAH KOS PERJALANAN DI KAMPAR, PERAK, MALAYSIA

Oleh

#### **ZULKIFLI BIN MOHAMED**

Oktober 2018

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Industri pelancongan cabaran di Kampar sangat bergantung kepada barangan bukan pasaran, yang mana dalam hal ini, ianya adalah sumber alam semulajadi yang memberikan pengalaman aktiviti cabaran luar. Dengan adanya sumber alam semulajadi seperti gua, sungai, air terjun dan hutan, Kampar sudah pasti menjadi salah satu destinasi terbaik bagi pelancongan cabaran di Malaysia.

Dari tahun 2016 hingga 2017, kerajaan negeri Perak telah membelanjakan sejumlah RM25.5 juta dalam menaik taraf, penyelenggaraan dan promosi produk pelancongan di negeri Perak. Di samping itu, kerajaan tempatan memperuntukkan RM 53.52 juta bagi membangunkan Kampar sebagai hab penting pelancongan eko-cabaran di Perak (Rancangan Tempatan 2030). Kampar juga telah dipilih sebagai salah satu daripada 60 projek kluster ekopelancongan di bawah Pelan Ekopelancongan kebangsaan (2016-2025) yang memberi tumpuan kepada aktiviti pelancongan cabaran. Oleh kerana kerajaan dan pihak-pihak yang berkepentingan telah banyak melabur dalam membangun, memelihara dan mempromosikan Kampar sebagai destinasi pelancongan cabaran, maka kajian ini perlu dijalankan bagi mengenalpasti nilai ekonomi sumber pelancongan cabaran dan memberi justifikasi terhadap usaha dan wang yang telah dibelanjakan oleh semua pihak berkaitan.

Kajian ini dilakukan melalui temubual dengan pelancong domestik yang telah mengambil bahagian sekurang-kurangnya satu daripada aktiviti pelancongan cabaran yang terdapat di Kampar. Sebanyak 305 data pelancong di lokasi telah dikumpul dan dianalisis dengan menggunakan regresi linear. Berdasarkan

kajian yang dijalankan, pengunjung yang datang ke Kampar terdiri daripada kelas pertengahan, berpendidikan tinggi, yang terdiri daripada Melayu dan Cina, dalam lingkungan umur 21-40 tahun yang kebanyakannya datang dari Perak, Selangor dan Kuala Lumpur.

Keputusan kajian menunjukkan bahawa, bilangan lawatan ke Kampar dilihat amat positif dan signifikasi, yang mana ianya dipengaruhi oleh beberapa faktor pembolehubah seperti kos perjalanan individu, kos lawatan pelancongan dan etnik. Kajian menunjukkan bahawa nilai lebihan pengguna bagi setiap perjalanan seorang ke Kampar adalah sebanyak RM 452.48. Oleh yang demikian, nilai ekonomi sumber pelancongan cabaran di Kampar bagi tahun 2016 dianggarkan sebanyak RM 20,064,320.64.



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This thesis was submitted to the Senate of the Universiti Putra Malaysia and has been accepted as fulfillment of the requirement for the degree of Master of Tourism. The members of the Supervisory Committee were as follows:

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# LIST OF ABBEREVIATIONS

ANOVA	Analysis of Variance
ATTA	Adventure Travel Trade Association
CS	Consumer Surplus
DL	Double-Log
EDA	Exploratory Data Analysis
ІТСМ	Individual Travel Cost Method
LM	Linear Model
MDT	Multi Destination Trip
NEP	National Ecotourism Plan
MOTAC	Ministry of Tourism and Culture, Malaysia
OLS	Ordinary least square
RM	Ringgit Malaysia
RP	Revealed Preference
SL	Semi-Log
SP	Stated Preference
SPSS	Statistical Package for Social Science
тсм	Travel Cost Method
UNESCO	The United Nations Educational, Scientific and Cultural Organization
UNWTO	United Nations World Tourism Organizatio
ZTCM	Zonal Travel Cost Method

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# **CHAPTER 1**

#### INTRODUCTION

## 1.1 General Background

The tourism industry has now become one of the most important economic sectors in Malaysia (Pomfret & Bramwell, 2016) and has since remained fundamental in the nation's economic transformation. As the second highest foreign exchange earner for nearly a decade (Borhan & Arsad, 2016), the Malaysian government through the Ministry of Tourism and Culture (MOTAC) and its agency Malaysia Tourism Promotion Board or known as Tourism Malaysia, had worked closely with the other agencies such as the state tourism board and tourism providers in promoting Malaysia as one of the most sought-after tourism destinations. The growing significance of tourism industry in terms of its arrivals and receipts to Malaysia has motivated the government to increase the budget allocation for tourism in Malaysia Plan (Nor & Khairudin, 2009) as shown in Table 1.1.

-		
Malay <mark>sia Plan</mark>	Period	Budget Allocation
1 <sup>st</sup> Malay <mark>sia Plan</mark>	1966 - 1970	No allocation
2 <sup>nd</sup> Malaysia Plan	1971 - 1975	RM 8.59 million
3 <sup>rd</sup> Malaysia Plan	1976 - 1980	RM 27.19 million
4 <sup>th</sup> Malaysia Plan	1981 - 1985	RM 40.00 million
5 <sup>th</sup> Malaysia Plan	1986 - 1990	RM 140.50 million
6 <sup>th</sup> Malaysia Plan	1991 - 1995	RM 533.90 million
7 <sup>th</sup> Malaysia Plan	1996 - 2000	RM 605.50 million
8 <sup>th</sup> Malaysia Plan	2001 - 2005	RM 1009.00 million
9 <sup>th</sup> Malaysia Plan	2006 - 2010	RM1827.90 million
10 <sup>th</sup> Malaysia Plan	2011 - 2015	RM 316.00 million
11 <sup>th</sup> Malaysia Plan	2016 - 2020	RM 500.00 million

# Table 1.1 : Malaysia Government Allocation on Tourism Development under Malaysia Plan

(Source : Marzuki, 2010; NST Online, 2017; Tan, 1991)

The government began taking an active interest in the development of the tourism industry when part of the proposal was incorporated in the 2<sup>nd</sup> Malaysia Plan. During that period, the Tourist Development Corporation of Malaysia (TDC) was established on 10 August 1972 as an agency under the Ministry of Trade and Industry (Tourism Malaysia, 2017). A special budget had been

allocated for the development and promotion of the tourism industry in the Malaysia Plan. This five-year plan was also supplemented along with a series of policy initiatives such as the National Tourism Policy (NTP) that was enacted in 1992, the National Ecotourism Plan (NEP) in 1996, the National Key Economic Areas (NKEA) under the National Transformation Programme (NTP) in 2010 and most recently, the National Ecotourism Plan 2016-2025.

Year	Tourist Arrivals	% Growth	Total Expenditure (RM)
2000	10.22 million	28.9	17.34 billion
2001	12.78 million	25.0	24.22 billion
2002	13.29 million	4.0	25.78 billion
2003	10.58 million	20.4	21.29 billion
2004	15.70 million	48.5	29.65 billion
2005	16.43 million	4.6	31.95 billion
2006	17.55 million	6.8	36.27 billion
2007	20.97 million	19.5	46.07 billion
2008	22.05 million	5.1	49.56 billion
2009	23.65 million	7.2	53.37 billion
2010	24.58 million	3.9	56.49 billion
2011	24.71 million	0.6	58.32 billion
2012	25.03 million	1.3	60.56 billion
2013	25.72 million	2.7	65.44 billion
2014	27.44 million	6.7	72.00 billion
2015	25.72 million	(6.3)	69.12 billion
2016	26.76 million	4.0	82.10 billion

#### Table 1.2 : Tourist arrivals to Malaysia from 2000 to 2016

(Source : Tourism Malaysia 2016b)

In Table 1.2, the tourism sector had witnessed a strong recovery in 2016, with the number of tourist arrivals reaching 26.7 million as compared to 25.7 million from the year before. In 2016, the tourism revenue has also increased by RM13 billion to record a total amount of RM82.1 billion, which is 49% of the total target for 2020.

While for domestic tourism, a total of 189.3 million visitors were recorded in 2016 as compared to 176.9 million in 2015, which is an increase of 7.0 per cent. The number of travels had increased by 8.0 per cent from 235.2 million visits in 2015 to 253.9 million visits in 2016. In 2016, the total expenditure by domestic tourists had amounted to RM74,773 million as compared to RM67,842 million that was recorded in the previous year. Thus, the average spending on each trip had increased by 2.1 per cent in 2016 from RM288 to RM294. Meanwhile, the

corresponding average travel per visitor and the average number of days stayed in 2016 were 1.34 trips and 2.31 days. The domestic visitor trips comprised of daytrips and overnight trips. In 2016, the contribution of daytrips and overnight stays was 66.6 per cent and 33.4 per cent respectively. The daily travel contribution had increased to 65.7 per cent, i.e. a rise of 0.9 per cent from 2015. The five states that recorded the highest number of tourist arrivals in 2016 were Johor (7.4 million), followed by Perak (7.2 million), Pahang (6.9 million), Selangor (5.5 million) and Negeri Sembilan (5.3 million).

# 1.2 Adventure Tourism Segment in Malaysia

The tourism sector has become a key driver of socio-economic progress for Malaysia. It is regarded as an important contributor to the economy and is identified as one of the major sources of foreign exchange earnings and catalyst to the economic growth. The direct contribution of the tourism sector to Malaysia's GDP in 2016 was RM 58.0 billion (4.7% of GDP) and this was expected to rise by 4.2% to RM 60.4 billion in 2017 (WTTC, 2017). This primarily reflects the economic activities generated by other travel-related services such as tour operators, hotels, product owners, travel agents, airlines and transportation services as well as the activities of the restaurant and leisure industries directly supported by tourists.

Malaysia tourism industry has a vast segment that ranged from mass tourism to niche tourism. With the increasing demand for niche tourism, Malaysia therefore is capable in providing travellers with several of its niche products such as adventure tourism, sports tourism, ecotourism and medical tourism (Anis, 2018). Of all the niche products, adventure tourism has now become an emerging trend among travellers in Malaysia.

The Industry Performance Report 2015 has revealed that adventure tourism activities was one of the main activities for holidaymakers in Malaysia (Table 1.3). This indicated that Malaysia has an abundant natural resources that can offer both soft and hard adventure activities for people from all walks of life (Tourism Malaysia, 2016a)

Activities	%	Activities	%
Shopping	85.3	SCUBA Diving*	4.0
Sightseeing in the cities	82.5	Others	3.8
Visiting Island & Beaches	30.6	Golfing	3.3
Swimming	18.3	Medical	3.0
Visiting Villages	15.7	Sailing or Yachting*	2.7
Nightlife Entertainment	13.4	Cruise	2.0
Visiting Museums	11.5	Flying Fox/Abseiling*	1.6
Snorkelling*	11.0	White-Water Rafting*	1.4
Visiting Historical Sites	10.8	Bird Watching	1.1
Spa & Wellness	8.1	Sport Activities	1.0
Hiking/Trekking*	6.7	Mountain	0.4
Visiting Theme Park	6.5	Mountain Climbing*	0.4
River Cruise	4.3	Angling	0.3
Cultural Event & Festivals	4.2	Volunteerism	0.2
ain Adventure Tourism Activities.			

Table 1.3 : Main activities engaged by tourists in year 2015

(Source : Tourism Malaysia 2015)

This segment provides an abundance of adventure activities and it has been accepted as a way of life for many people in this world (Nur Syuhada, 2013). The reasons people engage in adventure travel are diverse, but the most often cited motivations are relaxation and learning about different cultures (Eshete, 2013).

In general, adventure tourism is one of the important segments of tourism that involves exploration or travel with a certain degree of risk and which may require special skills and physical exertion. According to the Adventure Travel Trade Association, adventure travel may be any tourist activity that includes physical activity, a cultural exchange and connection with nature. This broad idea is broken into two major subcategories of adventure tourism, namely hard adventure and soft adventure.

In Malaysia, there are many popular adventure sites favoured by local and international visitors such as the UNESCO World Heritage Site Mount Kinabalu, Mulu National Park, Gunung Tahan, Gua Tempurung, Kenong Rimba Park, Sungai Padas, Tioman Island, Taman Negara and Kampar. In the beginning of 2000, exposure from TV reality shows such as "Sabah Eco-Challenge" & "Survivor at Pulau Tiga" had helped in boosting the country's tourism industry.

Today, the public sectors and the government have worked hand-in-hand in organising various events that are related to adventure tourism. Among the popular events held were the Mount Kinabalu International Climbathon 2016, Sultan Ahmad Shah International Eco-Challenge 2016, Sabah Adventure Challenge 2016, Eco-X Adventure Race 2015, Langkawi International Mountain Bike Challenge and White Water Rafting Jamboree Kampar 2016.

Through the Malaysia Tourism Promotion Board (Tourism Malaysia), the adventure tourism had been promoted as one of the important niche product segments. This can be seen from the latest National Ecotourism Plan 2016-2025, where adventure tourism had been a part of the ecotourism spectrum characteristics and is known as the eco-adventure segment (Figure 1.1).

SOFT	ADVENTURE	HARD
<ul> <li>Superficial environmental commitment</li> <li>Multi-purpose visits</li> <li>Short trips</li> <li>Larger groups</li> <li>Physically passive</li> <li>Physical comfort</li> <li>Services/facilities are expected</li> <li>Shallow interaction with nature</li> <li>Wilderness not essential</li> <li>Emphasis on interpretation</li> <li>Rely on travel agents and tour operator</li> </ul>	<ul> <li>Mix of Soft + Hard Factors</li> <li>Emphasis on physically active activities with element of risk/danger</li> <li>Often (not always) requires specialist equipment and/or training</li> </ul>	<ul> <li>Strong environmental commitment</li> <li>Specialised visits</li> <li>Long trips</li> <li>Small groups</li> <li>Physically active</li> <li>Physical challenge</li> <li>Few, if any, services expected</li> <li>Deep interaction with nature</li> <li>Wilderness necessary</li> <li>Emphasis on personal experience</li> <li>Often make own travel arrangement</li> </ul>

#### Figure 1.1 : Ecotourism Spectrum in Malaysia

(Source : National Ecotourism Plan 2016-2025 MOTAC, 2016)

Adventure tourism is a growing niche tourism segment that provides exciting guided tours through an adventure activity centred on the natural terrain of the destination (UNWTO, 2014a). In Malaysia particularly, the adventure tourism mostly engages the use of its natural environment as a pulling factor in supporting tourists to engage in outdoor activities. A study by Naidoo, Ramseook-Munhurrun, Seebaluck, & Janvier (2015) revealed that the most

important pulling factors of adventure tourism were attractiveness of a destination, recreation facilities and cultural attractions. The study has confirmed the theory of Pomfret (2006), which mentioned that the natural resource and physical environment are what attracted the tourists to participate in adventure activities. Therefore, the failure of taking measures in conserving the natural resources in the areas of adventure tourism can sometimes lead to irrevocable damage to the resource that can inadvertently affect tourist arrivals.

The demand for adventure tourism is high among adventure tourists. An adventure tourist is defined as a traveller who uses tour operators that take them on a guided adventure tour, which is normally done in an outdoor and natural setting, involving some form of physical activity with required specialised equipment (Buckley, 2006a). Therefore, the increasing affluent society and a heightened interest in quality of life have become some of the key drivers that contributed to a growing demand for the participation in adventure recreation (Syamsul Herman, 2010).

# 1.3 Non-Market Aspect of Adventure Tourism

Natural resources provide environmental goods and services. Freeman, Herriges, & Kling (2014) stated that each recreational site has its own natural resources characteristic for supporting the activities, where visitors can use them extensively for various outdoor recreational activities such as caving, white water rafting, abseiling, hiking and camping. As such, the value of this service depends on the characteristics of the natural resource systems.

The increase of tourist arrivals to adventure tourism destination should prompt the local authorities and tourism providers to provide the best infrastructure and facilities in the fulfilment of the visitors' recreational goals (Douglas, 1982). Without proper planning, the advantages of national tourism competitiveness could be compromised (Mohd Parid, 2010). During the planning and execution stages, the authority and tourism provider might face certain difficulties in fund allocation since most of the adventure activities are organised in a natural setting that uses the natural resource, which is the non-market goods. Very often, these non-market goods are not measured in the calculation of its contribution to the economic value of tourism (Limaei, Safari, & Merceh, 2017; Pratiwi, 2015).

In the case of adventure tourism sites in Malaysia, the value of the natural resources has always been overlooked by the running administration. This was supported by Union (1998), who mentioned that the failure in gathering economic value of the tourism resources would result in the non-marketed resources being assigned as a zero price. As a result, the consequence would

be the destruction or degradation of many natural areas since their actual economic worth had not been estimated or justified.

To cope with the high demand of adventure tourism activities in Malaysia such as white-water rafting, adventure caving, waterfall abseiling and hiking, the valuation can be useful in assessing and addressing the importance of resources conservation. Moreover, the information is useful for stakeholders who rely on these natural resources as their primary source of business. The findings can also help the management to understand the value of the site by determining the benefits gained by the tourists that are using the resources at the site and lastly to justify the allocation for the development of infrastructure, facilities, and services that will benefit the visitors (Syamsul Herman, Ahmad, Ramachandran, Mohd Rusli, & Richards, 2012).

Therefore, knowing the monetary value of the natural resources for the adventure tourism in this area would provide some form of indications to the management in justifying the time and money spent on the development, maintenance and promotion of the products. Hence, the purpose of this study is to estimate the economic value of adventure tourism resource in Kampar, Perak by applying a non-market economic valuation tool. The findings from this study will be useful for adventure travel providers and marketers to have an in-depth knowledge of the visitors' profiles and their characteristics, the monetary value of the resource and the best promotion strategies they could possibly use in attracting more visitors to this area.

#### 1.4 Adventure Tourism in Kampar, Perak

The state of Perak is a land rich with tropical natural resources. As the second largest state in Peninsular Malaysia, it is endowed with many natural resources that have become tourist attractions like the great Gua Tempurung, which is the biggest limestone cave in Peninsular Malaysia, the Royal Belum State Park, being one of the oldest virgin rainforests, Lenggong Heritage Valley that is recognised as UNESCO World Heritage Site and Pangkor Island. Today, Perak has continued to be one of the best tourist destinations in Malaysia. The popular magazine Lonely Planet has recognised Perak as the sixth best place to visit in Asia and at the same time being voted as the ninth in the World's Top 10 Regions in 2017 (Nuradzimmah, 2016). More interestingly, one of the best adventure tourism destinations in Malaysia had been Kampar, Perak (Gough, 2012).

Today, Kampar has emerged as a leading destination for nature and adventure lovers. With its natural resource elements such as forests, limestone caves and rivers, these have opened up opportunities for the tourism industry to focus on eco-adventure-based activities (Shurbaini, Azyan, & Hamzah, 2014). A study

conducted by Zulkifli, Syamsul Herman, Ramachandran, Ahmad, & Kunasekaran (2018) showed that domestic visitors primarily visited Kampar for adventure caving at Gua Tempurung (64.7%), which was followed by white water rafting (51%), waterfall abseiling (18.6%) and kayaking (15.7%).

Adventure tourism in Kampar relies heavily on its non-market goods, which are the natural resources that provide outdoor adventure experiences. These natural resource elements are the basic resources that provide and support adventure activities such as adventure caving at Gua Tempurung, white water rafting, tubing and kayaking at Sungai Kampar, trekking at Bukit Batu Putih and waterfall abseiling at Ulu Geruntom (Figure 1.2). Blessed with one of the best rivers to use for water rafting activity in Southeast Asia (John, 2018), the demand for adventure activities in Kampar have thus grown on a rapid scale (Jeremy, 2017). Today, there are more than six adventure operators in Kampar that offer a variety of adventure tours for holidaymakers. Many resorts had also been set up to provide accommodation services for travellers. Besides adventure tourism activities, visitors can also opt to visit other tourist attractions such as Rafflesia flower in Ulu Geroh, Sahom Farm Retreat, Gaharu Tea Valley and the Sungai Salu Waterfall. The appeal of these attractions has therefore made Kampar a complete eco-adventure destination for tourists.



**Figure 1.2 : Kampar Eco-Adventure Cluster** (Source : National Ecotourism Plan 2016-2025 MOTAC, 2016)

# 1.5 The Importance of Economic Value of Adventure Tourism Resources

Valuation is a process that is used to quantify the economic value of environmental goods and services that do not have a market value (Fahrudin, 2008). Environmental goods and services offer benefits and are categorised as non-market goods that are utilised by visitors for their recreational experience (Syamsul Herman, 2010).

Economic valuations are used to evaluate the values of environmental resources in a particular area that benefit the users. There are several economic valuation techniques that can be used in the decision-making process (Naidoo et al., 2015), one example would be the economic valuation of tropical nature that plays an important role in the conservation of biodiversity for developing countries. Hence, economic valuation is one of the possible ways in measuring the value of natural resources that is based on the individual's preference. A study by Christie, Hanley, & Hynes (2007) stated that the economic evaluation techniques were developed as a means of measuring the value (consumers' surplus) that is derived from the recreational use of environmental resources such as forests, rivers and many more. Nuva, Mad Nasir Shamsudin, Radam, & Shuib (2009) also concurred that the estimated monetary value of environmental resources can be helpful for economists, the government and the society in predicting the impact of economic decisions on the preservation of natural resources.

In Malaysia, many stakeholders in the adventure tourism industry had failed to demonstrate the value of the natural resources that the tourists had used for their adventure experience. The value of the resources is the benefit it gives to the tourists, who are responsible for the demand for the facility or service at this area. Therefore, this factor will determine whether, and how frequently, an individual will visit this area.

The economic value is the value an individual place on a trip, which is based on his/her expected benefits from the trip. The study conducted by Marsinko, Zawacki, & Bowker (2002) had stated that, theoretically, if the expected benefits from participating in activity are less than the costs of the trip, then there is a likelihood for the individual to forgo the trip and if the expected benefits are greater than the cost, then the individual is inclined on making the trip. When their expected benefits from the trip exceed the cost, the trip is taken, and a net benefit is accrued.

In economic literature, this net benefit is referred as the consumer surplus and it represents a value that is useful for policy makers, managers as well as the other decision-makers that are associated with the recreation and tourism industry. Specifically, it can serve as a guide in setting tour packages fees, entrance fees, budget allocations and policy-related decisions. Then again, these adventure tourism resources are often undervalued or considered to be of zero value. Although many studies had been conducted on the economic values of tourism destination in Malaysia such as wildlife tourism (Abdul Hamid et al., 2018), ecotourism (Nurshazwani, Syamsul Herman, Ahmad, & Awang Noor, 2018), forest use (Syamsul Herman, Ahmad, Ramachandran, & Rusli, 2013a), geopark (Koshy Matthew, Shuib, Ramachandran, & Mohammad Afandi, 2013), however, much has not been done on the adventure tourism segment. Therefore, this study will help to justify the economic value of Kampar, since it has been recognised as a one-stop destination for adventure tourism in the country (Gough, 2012).

#### 1.6 Statements of Problem

The government had spent millions of ringgits in developing and maintaining Kampar as the best adventure tourism destination. From 2016 to 2017, the Perak government had also allocated a total of RM25.5 million for the upgrading, maintenance and promotion of tourism in Perak (Ahmad, 2016; Suara Perak, 2017). The local municipal council for Kampar too had outlined a sum of RM53.52 million for developing Kampar as an important tourist hub (Kampar District Council, 2016). The allocation was made as a way of providing tourists with the opportunities of maximising their benefits while staying within Kampar's natural environment. Furthermore, the National Ecotourism Plan 2016-2025 (MOTAC) also highlighted the significance of maximising the potential of ecoadventure tourism in Kampar. In this plan, 60 pilot clusters had been created for eco-adventure tourism, where the emphasis in that area would be on adventure activities. The eco-tourism cluster in Kampar focuses on adventure tourism activities that comprised of white water rafting, trekking, caving, waterfall abseiling and team building. As such, there needs to be a stronger cooperation between the industry players in Kampar, Perak, such as the state tourism council and Malaysia Tourism Promotion Board (Tourism Malaysia) in ensuring that the marketing of adventure tourism is in line with the government's promotion campaign. The Department of Statistics Malaysia had indicated an increase in the number of domestic tourists to Perak in 2015. It had increased by 13.71 per cent from 7.00 million in 2014 to 7.96 million in 2015. This has amounted to RM 2 billion of tourist receipts in 2014. Needless to say, the location and its resources had attracted the attention of both local and international tourists. For instance, in 2016, a total of 98,171 visitors had visited Kampar for adventure activities (APT Consortium Sdn. Bhd, 2017).

Despite the demand for adventure tourism, there is however, a lack of knowledge in gauging the meaning of its value. This could lead to mismanagement since decisions are made without the full understanding on the value of the resources. Since the government and the stakeholders had spent a large sum of money in developing and promoting Kampar as an adventure destination, therefore, this study would be able to assist them directly in assessing the monetary value of the adventure tourism resources.

Adventure tourism is described as the use-value of natural resources and mathematical models such as the Travel Cost Method (TCM) can be used to estimate the 'actual' value of recreational use rather than hypothetical values. Travel Cost Method has been applied in many recreational valuation studies. However, Travel Cost Method assessment focusing on niche market such as adventure tourism is still lacking, especially in Kampar, hence created a gap in revealed preferences valuation studies. Since adventure tourism is one of the highlights in the National Ecotourism Plan 2016-2025, the importance of studies addressing the gap becomes more significant.

A successful promotion of a sustainable ecotourism also requires good governance and collaboration from all relevant stakeholders. Currently, the demographic and travel behaviour of the participants of adventure tourism in Kampar is not available neither to the operator nor government agencies. This is where, this study incorporates study on the visitors' profiles and their visit characteristics. This would tremendously aid the stakeholders in their promotional and marketing strategies for Kampar.

#### 1.7 Theoretical Framework

The theoretical framework of this study is based on the theory of demand and utility. The utility is an economic concept that measures the satisfaction of visitors that receive the goods and services while participating in adventure activities. According to Silberberg (1978), it is assumed that people will maximize their utility or satisfaction by consuming goods that include environmental services and goods in the determination of the function of consumer demand. Since utility maximisation is based on time and income, therefore, decision must be made about the choice of the products to be consumed (Ahmad, 1994).

In the other hand, demand theory is a principle relating to the relationship between consumer demand for goods and services and their prices. It forms the basis for the demand curve, which relates consumer desire to the amount of goods available. For that reason, a person's income level can create an impact on the satisfaction of demand for goods and services. In terms of tourism products and services, recreation demand models are used to forecast the demand for recreational activities and to determine the various factors that influence their choices (Train, 1998). In this study, the demand model is used to forecast the demand for adventure tourism activities in Kampar, Perak and more importantly, to estimate the economic value of adventure tourism resources in Kampar.

# 1.8 Objectives of the Study

The general objective of this study is to estimate the economic value of adventure tourism resources in Kampar, Perak. To better define the purpose of the study, the overall aim had been divided into several specific objectives.

# 1.8.1 The Specific Objectives

- 1) To determine the profile and visit characteristics of the adventure tourism domestic visitors to Kampar, Perak.
- 2) To determine the factors influencing the demand for adventure tourism in Kampar, Perak.
- 3) To estimate the economic value of adventure tourism resources in Kampar, Perak using Travel Cost Method.

# 1.9 Significance of the Study

Firstly, the estimated value of adventure tourism resources in Kampar can be used by the industry players in justifying the allocation of budgets for the development, maintenance and promotional strategies of adventure tourism sites in Kampar.

Secondly, this study will provide a base reference on the adventure visitors' profile and characteristics to Kampar, Perak. The information gathered from this market segmentation would be useful for tourism industry players in creating strategic marketing plans for specific groups of consumers.

Lastly, the measurement of recreational benefit that is based on the actual demand study would also aid the government and the industry players in the formulation of their future development plans for Kampar. From this study, the economic value of resources had demonstrated that the adventure tourism activities would provide significant importance for Kampar. Thus, the policymakers and industry players in Kampar can use this value as a guide when

making decisions concerning allocations for development, maintenance or promotional purposes.

Non-market valuation should be used in combination with good practice policy principles. For example, valuation should only be used in situations where a sound reason for considering government action (such as the existence of market failure) has been established. Cost-benefit analysis is generally included in non-market valuation estimates, where the likely accuracy of all components in the analysis is explained. Sensitivity analysis is also used to demonstrate how results are changed under alternative assumptions. Therefore, this estimated value plays an important role in describing the non-market outcomes i.e. what the policy would achieve in relative to what would have occurred in its absence.

Cost-benefit analysis is based on the idea that the government should only undertake programmes that promise favourable (usually monetary) return. It is important to note that cost-benefit analysis provides information that aids in decision making and not a substitute for it. The analysis therefore has to be presented clearly and allows for proper scrutiny, especially on the basis that concerns non-market valuation estimates.

# 1.10 Study Outline

This dissertation is made up of five chapters. Chapter 1 gives an introduction on the tourism industry performance, economic valuation, adventure tourism and its resources from the Malaysian perspective as well as the background on the field of study. Apart from highlighting the problem statement, this section also contains the objectives along with the scope and significance of the study.

Chapter 2 comprises the literature review that is related to this study, which includes adventure tourism, non-market valuation and the importance of economic valuation, demand models as well as adventure resources.

Chapter 3 focuses on the methodology, instruments and the types of survey used. This chapter describes the background and the approaches applied in the research such as the questionnaire designs and the sampling procedures used in achieving the objectives of the study.

Chapter 4 reports and discusses the results that were derived from the methodologies used. The findings elucidated the characteristics of adventure domestic visitors, the estimation of demand towards adventure activities and the economic value of adventure tourism resources.

Chapter 5 provides the conclusion together with recommendations that can be used for future research as well as by the tourism players in Kampar and throughout Malaysia.



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