



Universiti Malaysia  
KELANTAN

FYP ESB

**THE ASSESSMENT OF THE TOURISTS'  
AWARENESS ON THE CONSERVATION OF  
LATA KEDING, JELI, KELANTAN, MALAYSIA**

BY

**SALEH BIN MOHD KAMAL**

A report submitted in fulfillment of the requirement for the degree of  
Bachelor of Applied Science (Sustainable Science) with Honours

**FACULTY OF EARTH SCIENCE  
UNIVERSITY OF MALAYSIA KELANTAN**

2020

## DECLARATION

I declare that this thesis entitled “**The Assessment of Tourist’s Awareness on the Conservation of Lata Keding, Jeli, Kelantan, Malaysia**” has been composed solely by myself and that it has not been submitted, in whole or in part, in any previous application for a degree. Except where states otherwise by reference or acknowledgment, the work presented is entirely my own.

Signature: \_\_\_\_\_

Name : Saleh Bin Mohd Kamal

Date : 5 January 2020

UNIVERSITI  
MALAYSIA  
KELANTAN

## ACKNOWLEDGEMENT

First and foremost, my utmost gratitude goes to Allah SWT, without His grace and protection this study would never have come into reality.

I also owe a considerable measure of gratitude to Dr Marianne C. Leong and Miss Hanisah binti Malek that acts as my supervisor during my period of performing FYP in Universiti Malaysia Kelantan (UMK) who supervised this work in a critical but objective and constructive manner. I thank her very much for guiding me through the whole process with great care from her comments, assistance and advices.

Not to be forgotten, my family and friends and classmates for giving me psychological, emotional and physical support during this period.

I also would love to express my gratitude and appreciation to the participants who are willing to be part of this research of mine.

UNIVERSITI  
MALAYSIA  
KELANTAN

# **The Assessment of Tourist's Awareness on The Conservation of Lata**

**Keding, Jeli, Kelantan, Malaysia**

## **ABSTRACT**

Environmental awareness has its importance in ensuring the conservation of a recreational forest. This includes making sure that the place stays clean and the landscape is well preserve. This study assessed the relationship between Lata Keding tourist's environmental knowledge, perception and awareness with their awareness on the conservation of the place. Questionnaire that consists of Part A for demographic profile and Part B for the variables (knowledge, perception and attitude) was constructed and distributed to the tourist of Lata Keding to be answered. The data collected from these questionnaire were analyzed using SPSS software. Analysis of the responses showed that there was a positive correlation between Lata Keding tourist's environmental knowledge, perception and awareness with their awareness on the conservation of the place. Based on these results, it was conclude that Lata Keding tourist's environmental knowledge, perception and awareness effect their awareness on the conservation of the place.

**Keywords:** Knowledge, Perception, Attitude, Awareness.

UNIVERSITI  
MALAYSIA  
KELANTAN

**Penilaian Kesedaran Pelancong dalam Pemuliharaan Lata Keding, Jeli,  
Kelantan, Malaysia**

**ABSTRAK**

Kesedaran mengenai alam sekitar mempunyai kepentingannya dalam memastikan pemuliharaan hutan rekreasi. Ini termasuk memastikan bahawa tempat itu tetap bersih dan lanskapnya dipelihara dengan baik. Kajian ini menilai hubungan antara pengetahuan alam sekitar, persepsi dan sikap pelancong Lata Keding dengan kesedaran mengenai pemuliharaan tempat tersebut. Soal selidik yang terdiri daripada Bahagian A untuk profil demografi dan Bahagian B untuk pembolehubah telah dibina dan diedarkan kepada pelancong Lata Keding untuk dijawab. Data yang dikumpul dari soal selidik ini telah dianalisis menggunakan perisian SPSS. Analisis respon menunjukkan terdapat hubungan antara pengetahuan alam sekitar, persepsi dan sikap dengan kesedaran mengenai pemuliharaan Lata Keding. Berdasarkan dapatan ini, disimpulkan bahawa pengetahuan, persepsi dan sikap alam sekitar pelancong Lata Keding akan memberikan kesan terhadap kesedaran mereka terhadap pemuliharaan tempat itu.

**Kata kunci:** Pengetahuan, Persepsi, Sikap, Kesedaran.

UNIVERSITI  
MALAYSIA  
KELANTAN

## TABLE OF CONTENTS

<b>DECLARATION</b> .....	<b>I</b>
<b>ACKNOWLEDGEMENT</b> .....	<b>II</b>
<b>ABSTRACT</b> .....	<b>III</b>
<b>ABSTRAK</b> .....	<b>IV</b>
<b>TABLE OF CONTENTS</b> .....	<b>V</b>
<b>LIST OF TABLES</b> .....	<b>VII</b>
<b>LIST OF FIGURES</b> .....	<b>VIII</b>
<b>CHAPTER 1 INTRODUCTION</b> .....	<b>1</b>
1.1 BACKGROUND OF STUDY .....	1
1.2 PROBLEM STATEMENT .....	3
1.3 OBJECTIVES OF THE STUDY .....	5
1.4 SIGNIFICANCE OF STUDY.....	5
1.5 SCOPE OF STUDY.....	6
<b>CHAPTER 2 LITERATURE REVIEW</b> .....	<b>7</b>
2.1 INTRODUCTION .....	7
2.2 KNOWLEDGE.....	8
2.3 PERCEPTION.....	10
2.4 ATTITUDE .....	11
2.5 AWARENESS.....	13
<b>CHAPTER 3 RESEARCH METHODOLOGY</b> .....	<b>14</b>
3.1 STUDY AREA.....	14
3.2 POPULATION AND SAMPLE .....	15
3.3 DATA COLLECTION.....	16
3.4 DATA ANALYSIS.....	16

**CHAPTER 4 RESULTS AND DISCUSSION .....20**

4.1 DEMOGRAPHIC PROFILE .....20

4.2 ASSESSMENT ON THE RESPONDENTS’ KNOWLEDGE, PERCEPTION,  
ATTITUDE AND AWARENESS ON THE CONSERVATION OF LATA KEDING....25

4.2.1 Knowledge.....26

4.2.2 Perception.....27

4.2.3 Attitude.....28

4.2.4 Awareness .....29

4.3 CORRELATION OF KNOWLEDGE, PERCEPTION, ATTITUDE WITH  
AWARENESS .....30

4.4 DISCUSSION .....34

**CHAPTER 5 CONCLUSION.....36**

5.2 LIMITATIONS.....37

5.3 RECOMMENDATION.....37

**REFERENCES .....38**



## LIST OF TABLES

<b>Table 3.1</b> : Krejcie and Morgan Table of determination of sample size.....	15
<b>Table 3.2</b> : Table of Cronbach’s alpha test .....	18
<b>Table 3.3</b> : Cronbach’s Alpha values for the Pilot Study.....	19
<b>Table 4.1</b> : Statistical Value for Knowledge, Perception, Attitude and Awareness. ...	25
<b>Table 4.2</b> : Spearman’s Correlation of Knowledge with Awareness .....	30
<b>Table 4.3</b> : Spearman’s Correlation of Perception with Awareness .....	31
<b>Table 4.4</b> : Spearman’s Correlation of Attitude with Awareness .....	31



## LIST OF FIGURES

<b>Figure 3.1:</b> Map Showing The Location of Lata Keding.....	14
<b>Figure 4.1:</b> Pie Chart of Percentage and Frequency of Gender .....	20
<b>Figure 4.2:</b> Pie Chart of Percentage and Frequency of Age .....	21
<b>Figure 4.3:</b> Pie Chart of Percentage and Frequency of Education (For Respondeents Who Have Worked).....	22
<b>Figure 4.4:</b> Pie Chart of Percentage and Frequency of Education (For Respondents Who Still Study) .....	22
<b>Figure 4.5:</b> Pie Chart of Percentage and Frequency of Numbers of Visit .....	23
<b>Figure 4.6:</b> Pie Chart of Percentage and Frequency of Place of Residents (If The Respondent is From Outside of Kelantan).....	23
<b>Figure 4.7:</b> Pie Chart of Percentage and Frequency of Place of Residents (If The Respondent is From Inside of Kelantan) .....	24
<b>Figure 4.8:</b> Bar Chart of Percentage of Reasons for Respondents Visit to Lata Keding.....	24
<b>Figure 4.9:</b> Bar Chart of Percentage of Questions of Knowledge Section .....	26
<b>Figure 4.10:</b> Bar Chart of Percentage of Questions for Perception .....	27
<b>Figure 4.11:</b> Bar Chart of Percentage of Questions for Attitude .....	28
<b>Figure 4.12:</b> Bar Chart of Percentage of Total Scores for Awareness.....	29
<b>Figure 4.13:</b> Correlation Graph of Awareness against Knowledge .....	32
<b>Figure 4.14:</b> Correlation Graph of Awareness against Perception .....	32
<b>Figure 4.15:</b> Correlation Graph of Awareness against Attitude .....	33

## CHAPTER 1

### INTRODUCTION

#### 1.1 Background of Study

Natural forest have unique and beautiful landscape that provide places for the people to carry out activities such as recreation. Many governments in countries including Malaysia have establish Recreational Forest as a way to conserve and manage the natural forests. Recreational forest is a forest with constructional facilities to attract visitors (WWF Malaysia, 1996) and is establish to conserve the forest and its inhabitants. However, these forest can deliver these purpose only if they are manage in sustainable manner.

Recreational forest landscape has being a thing since long time ago. In Malaysia, it started when Sir Gerald Templer who is the British High Commissioner in Malaya (former name of Malaysia) before Malaysia Independent; opened up Templer Recreational Forest in 1954 (Mohd Kher, 2012). Nowadays, recreational forest landscape has been developed intensively for economic benefits as well as to fulfill user needs. Starting from providing basic facilities, now some sites have chalets for overnight stay in the park. Indirectly, this gives pressures to the recreational forest landscape itself as they will be causing issues such as waste production and disturbing flora and fauna.

This is where awareness of the tourists comes to play. Making sure residents are fully aware of the park and recreation amenities and programming available to them, where to find them and what activities are offered, as well as residents' perception of the quality and other characteristics of a park; are all important factors in whether they will utilize a park and its facilities. A primary reason for increasing awareness is that parks and public open spaces have long been associated with improved public health. Awareness also helps in creating stewardship for green spaces, caring for the environment, appreciation of parks' positive economic impact and the fact that they provide places for cognitive, social and physical activities and wellbeing

## 1.2 Problem Statement

Nowadays, tourism is a major international industry. One sector of the industry which is growing particularly fast is tourism and recreation in natural areas, where the tourist attraction is provided by relatively undisturbed natural environments. Good environmental planning and management is particularly crucial in natural-areas tourism because environmental impacts are not external to the industry, as they are in the case of most primary production and secondary manufacturing industries but internal and indeed central to the economic base of the industry itself. If well planned and managed, natural-areas tourism is potentially an industry with extremely low environmental impact, and high and indefinitely sustainable economic return. If poorly planned and run, however, the reverse will be true: high environmental impact, low and short-term economic return.

Today, Malaysia National Policy on Biological Diversity (NPBD) stated that government and non-government taking this biodiversity conservation issue seriously and many efforts that have been taken but the awareness level of biodiversity conservation still in poor level (Baharum et. al. 2017). Less human knows and concern about the biodiversity important which is very significant to the human life. In addition, through NPBD, Malaysia has come out with the goal in raising Malaysian awareness towards the biodiversity conservation to achieve sustainably country in 2025 (Ministry of Natural Resources and Environment, 2016).

The lesser the knowledge, perception and attitude a person had towards environmental issues, the lower the awareness they have towards environment. The fewer the times that an individual was being educated about environmental behaviour means that he or she did not have much awareness in keeping a place well-

maintained. The level of perception of the public especially those in rural areas have not being unfavourable either. They thought that there is nothing to worry about and even if events such as flood or landslides occur they will just chalk it up to the usual experience and therefore there is nothing to fear about (Whitmarsh,. This is because they are used to these kinds of events. Lack of good perception may also contribute to low attitude towards nature. Every bad decision will lead to more destruction of the environment.

Lata Keding is a new location of the recreational area in Kampung Gemang, Jeli. The natural resources in this area are still maintained and being conserved well, thus it is known as one of the potential destination for recreational purpose. Since it had been well known not only to the local community in Jeli, Kelantan area but also to the tourists outside of this state, many visitors had interest to visit this recreational area especially on holiday. Consequently, this area had been polluted and therefore creates negative effects towards this recreational area such as water pollution and disturbance to the natural habitat. So, it is very important to raise the level of awareness of the visitors to conserve Lata Keding in order to ensure the authenticity of this recreational area.

### **1.3 Objectives of the Study**

- a) To determine the factors that affecting awareness of visitors in Lata Keding, Jeli, Kelantan, Malaysia in regards to environment;
- b) To identify the relationship between visitor's knowledge, attitude and perception with the level of awareness to conserve Lata Keding as recreational place.

### **1.4 Significance of Study**

The tourism agencies may do campaigns on sustainable activity and environmental awareness and behaviour. Tourism attractions owners may develop some sort of guidance or guidelines that allow environmental behaviour to be implemented such as urging visitors to separating waste according to the types.

The study may help public in more understanding in environmental awareness and behaviour and keeping the tourists attraction places clean. The research community can benefit from this by discovering the factors that make up people's awareness that many research were not able to explore.

### **1.5 Scope of Study**

The study focuses on the effect of knowledge perception and attitude to environmental awareness. The study will be conducted at Lata Keding, which is just outside of Universiti Malaysia Kelantan Kampus Jeli (UMKKJ). This study will use a questionnaire form as a way to collect information from the visitors to Lata Keding about how their knowledge about environmental behaviour, how their perception towards nature and how their attitude to keeping Lata Keding clean.



## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 Introduction

This chapter will be divided into 4 different aspects; knowledge, perception and attitude; with the addition of awareness. Each section will be discussed of the theories, model or text that is related to this research project. This review also will discuss about any flaws or gaps that the previous research had and hopefully point out in this project. Although many studies look for the specific and individual issues into one of those 3 aspects, they are not many researchers that collect all of 3 aspects (knowledge, perception and attitude) generally into one study. This is important because this will make a bigger picture about how these aspects related to each other and also the awareness of the environment from the tourist.



## 2.2 Knowledge

A growing and evolving knowledge, understanding and awareness of the biophysical environment and its issues, which includes human interactions and consequences is what defines characterise environmental awareness. Every good awareness leads to good behaviour. This is true especially for sustainability.

Environmental education and knowledge would be one of the most strategic and important roles to increase public awareness and enhance the attitude towards protecting the environment. Environmental knowledge is the amount of information about environmental issues that individuals have and their ability to understand and assess their effect on society and the environment. Environmental education are designed to increase environmental awareness among human populations and lay out opportunities to earn the knowledge, values, attitudes and skills required to take care of the environment. These young generations' future decisions will influence the sustainability of human existence, their perspective and actions will have significant environmental outcome.

Environmental knowledge can be split into two forms which are knowledge with the consideration to an individual's impact in nature, and knowledge with reference to the means to decrease an individual's influence as stated by D'Souza, Taghian and Lamb (2006). Despite that, even when person have a high level of environmental knowledge, their behaviour with respect to nature may be the same. Moreover, environmental knowledge will result a high level of awareness, which, in turn, encourage favourable attitudes in terms of nature may still the same.

The impact of environmental awareness on other variables had been empirically studied by many researchers. In spite of the fact that preceding research has

considered environmental awareness as one-dimensional, it requires to be separated into two structures based on the quantity of objective and subjective environmental issues and solutions for the information. In essence, subjective knowledge is based on the idea of being aware of the environment by individuals, while objective knowledge is about factual knowledge. In particular, there are variations between objective and subjective aspects, such as when a person does not correctly identify his or her level of environmental awareness (Aertsens et al., 2011). This is because people become competent in different levels and knowledge point about environmental problems and solving it (e.g., somebody can focus more on problems than the way of solving it, and vice versa).

Essentially, through subjective and objective awareness of the world will manifest differently and well defined impact on the decision-making process of a person. More precisely, subjective knowledge is a mixture of 'self-confidence' and environmental knowledge, so that its impact can vary from that of objective knowledge (i.e., the degree of real knowledge itself). This research therefore conceptualises environmental awareness as two aspects (i.e., subjective and objective) in order to examine the experience of tourists with respect to nature, environmental problems and the way of solving the problem.

### 2.3 Perception

Another factor that determined the environmental awareness is the perception of the individual. Perception is a way through which people view, evaluate, retrieve and respond to any kind of environmental data. For instance, some people are happy to earn money, while others are happy to spend money. In terms of environmental behavior, it is how an individual perceives the environment; the way in which the information received about the environment is evaluated and stored such as a person feel that planting trees is one of necessary for preventing natural disasters.

Environmental sociologists give the idea that people may not participate in environmentally friendly activities due to they have little knowledge of the environmental sustainability impact of their actions. However, environmental knowledge and attitudes are important for recreational site conservation. As demonstrated in Chen et al. (2011) and McFarlane and Boxall (2003), individual attribute such as age, sex, educational level and income are key determinants of pro-environmental actions. On the other hand, empirical evidence shows that younger, more educated people are more worried on the subject of the environment.

Also significant in scientific literature was the effect of place attachment on pro-environmental behaviour which can be due to natural causes and social influences being attached. Analysis of survey data gathered from tourist of national parks in Australia, by Ramkissoon, Smith and Weiler (2013) concluded that both place attachment and place satisfaction make an impression on environmental behaviour. Subjective well-being or the happiness of residents indicates sustainable development as people move to more sustainable territory. As the matter of fact, the main determinants of subjective well-being are positive social and environmental

factors. Nevertheless, there is little empirical support obtainable on the environmental behaviour effect. Furthermore, demographic factors such as age, education, sex, employment, and political orientation, as well as regional factors such as urbanisation rate and urban structures, affect public perception and behaviour. The empirical evidence highlights the importance of position attachment in responsible behaviour in the community.

#### **2.4 Attitude**

Attitude is another one to be considered. Attitude is a predisposition or a tendency to acknowledge positively or negatively with regards to an idea, an object, an individual or a situation. Attitude has an impact on a person's option of stimuli such as action, and answer to challenges, incentives, and rewards. In regards to the environment, attitude is a learned susceptibility to respond consistently in a supposed manner to the environment. In other words, it is a psychological tendency conveyed by some degree of favor or disfavor of evaluative responses to the natural environment (Milfont & Duckitt, 2010).

Environmental attitudes described as personal attitudes to, or to, the environment or the environment (Brick & Lewis, 2014). Pepper and Leonard (2016) explained environmental attitudes as individual opinions on the importance of the environment and human responsibility and position in the environment as well as the emotional inclination of loathe or favour and agreement or be in opposition in the opinion of the reasoning and idea. Some researchers evaluated that the idea of environmental attitudes should be resolved on environmental ethics, as well as natural resources,

protection of the environment, development of the environment, environmental relations and environmental responsibility (Frantz & Mayer, 2014).

Lokhorst, Hoon, le Rutte, and de Snoo (2014) viewed environmental attitudes as an individual's unwavering and reconcilable psychological awareness, ideological assessment, or idea of action, and intent on environmental issues. Snowden (2014) pointed to environmental attitudes as organisational and dependable personal characters that enhance an individual's observation and thought and ultimately become action to protect the environment. The psychological feedback, including good and bad assessment, was developed on the basis of past learning experience or perceived experience in the natural environment, targeting specific objects in the environment. In general, environmental attitudes point out the judgment of individuals on the belief in natural resources (good or bad, positive or negative) to the criteria for evaluation (Kurusu, 2016).

## 2.5 Awareness

With the enhancement of low-carbon tourism awareness, many experts, academics, and tourism business operators focus on their operating modes, which can impact the environment. Environmental awareness of the environment is described as knowledge of environmental issues and solutions (Zsoka et al., 2013). Attitude takes into account the contrast between the psychological and the sociological definitions. Therefore, the psychological concept of identity is stated as actions. Sociological attitude concept, however, implies anticipation of action (Chaiklin, 2011). The environmental attitudes include responses to the interference or reduction of environmental problems with this awareness (Yucel, 2003). Accordingly, environmental awareness plays a very important role in influencing perceptions of individuals (Wong, 2003; Zsoka, 2008).

## CHAPTER 3

### RESEARCH METHODOLOGY

#### 3.1 Study Area

Lata Keding is a recreational area that is situated right in front of UMKKJ. Rough GPS position shows that the area is at latitude  $5.7500^{\circ}$  and longitude  $101.8667^{\circ}$ . It's a newest attraction for nature lover and enthusiasts found at Kampung Gemang Jeli. Although it is not completely finished, there are many facilities provided for their visitors such as an open hall, camping sites, restaurants, mini zoo and obviously, toilets. Moreover, chalet and dorms have being actively developed and is expected to be completed at the end of 2019. Although the place had just being opened in 2019 and still in development but it already attracted people from all around the country especially people from Jeli who mostly come for its clear and calmly flow river; and as a place for doing community activities.



**Figure 3.1:** Map Showing The Location of Lata Keding

### 3.2 Population and Sample

Convenience sampling technique were used when selecting the participants that make up the sample. Sampling convenience (also known as sampling availability) is a particular type of non-probability sampling technique that relies on data gathering from members of the population who are conveniently present to participate in the sample. Convenience sampling is a method of sampling where the first available primary source of data will be used for analysis without additional requirements. In other words, this sampling method involves getting participants wherever and whenever they are convenient to find them. There are no inclusion criteria that are used for convenience sampling defined prior to selecting subjects. In this study, the respondents are visitors of Lata Keding, Jeli, Kelantan, Malaysia

Krejcie and Morgan table are being used for determining the sample sizes that needed to be collected for this study.

**Table 3.1** : Krejcie and Morgan Table of determination of sample size

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	1000000	384

*Note: N is Population Size; S is Sample Size* *Source: Krejcie & Morgan, 1970*



### 3.3 Data collection

For this study, a well-designed questionnaire will be used to collect data. A sample of 200 from 400 tourists were chosen who come to Lata Keding to get their answers to help with the study will obtain the questionnaires. This questionnaire will be divided into two parts, Part A for the personal demographic of the respondents, and Part B, C, D and E asks for specific and reliable information that will be useful for the study. Part B is for knowledge, Part C is for perception, Part D attitude and Part E awareness. Part B, C and D were used as the dependent variable for this study.

### 3.4 Data analysis

The data collected through questionnaire from the respondents was analyzed to make it simple, understandable and precise. There are a few methods in this study that were used for different purpose.

Descriptive analysis were used to get the frequency and percentage of each of the demographic profiles; and also the statistical value (mean, median, mode) for each of the Part B, C, D and E in the questionnaire.

For the determination of the relationships between knowledge, perception and attitude against awareness, Spearman's correlation was being use to analyze the data collected. Spearman's correlation coefficient is a statistical calculation of the strength of a monotonic relationship between paired data. The definition is similar to the one given by Pearson, e.g. the closer the monotonic relationship is to the better. Correlation is an effect size, so we can use the following guide for the absolute value of  $r_s$  to verbally outline the strength of the correlation:

- i. 0.00-0.19 (very weak)
- ii. 0.20-0.39 (weak)
- iii. 0.40-0.59 (moderate)
- iv. 0.60-0.79 (strong)
- v. 0.80-1.0 (very strong)

The following data assumptions is needed to take into consideration the calculation of Spearman's correlation coefficient and subsequent significance testing of it, which is:

- i. interval or ratio level or ordinal;
- ii. monotonically related.

There is no need for normality and hence it is nonparametric statistic; as appose to Pearson's correlation.

Cronbach's alpha test will be done in order to understand whether the questions in the questionnaire are reliable. Cronbach's alpha is a calculation of internal consistency, that is, how a set of items corresponds are as a group. It is considered to be a measure of scale reliability. A "high" value for alpha does not suggested that the calculation is unidimensional. Technically speaking, Cronbach's is not a statistical test, but a reliability (or consistency) coefficient. Cronbach's can be written as a function of the number of test items and also the inter-correlation between the items on average. Below is the equation for the Cronbach's alpha for analytical purposes:

$$\alpha = \frac{N \cdot \bar{c}}{\bar{v} + (N - 1) \cdot \bar{c}}$$

Here  $N$  is equal to the number of items,  $c$ -bar is the average inter-item covariance among the items and  $v$ -bar equals the average variance.

If the bigger the number of items, Cronbach's alpha value also increase. Additionally, Cronbach's alpha will be low if the average inter-item correlation is low. Cronbach's alpha increases as the average inter-item correlation increases (holding the number of items constant).

**Table 3.2:** Table of Cronbach's alpha test

<b>Cronbach's alpha</b>	<b>Internal consistency</b>
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

Prior to using the test a pilot study will be done first in order to test the validity of the question. Pilot studies are scale-downed, experimental studies which intent to explore whether critical elements of a main study will be attainable.

The table shows the result for the previously done pilot study. As shown in the table the questions in the questionnaire are acceptable to be used for the real study ( $\alpha \geq 0.7$ ).

**Table 3.3:** Cronbach's Alpha values for the Pilot Study

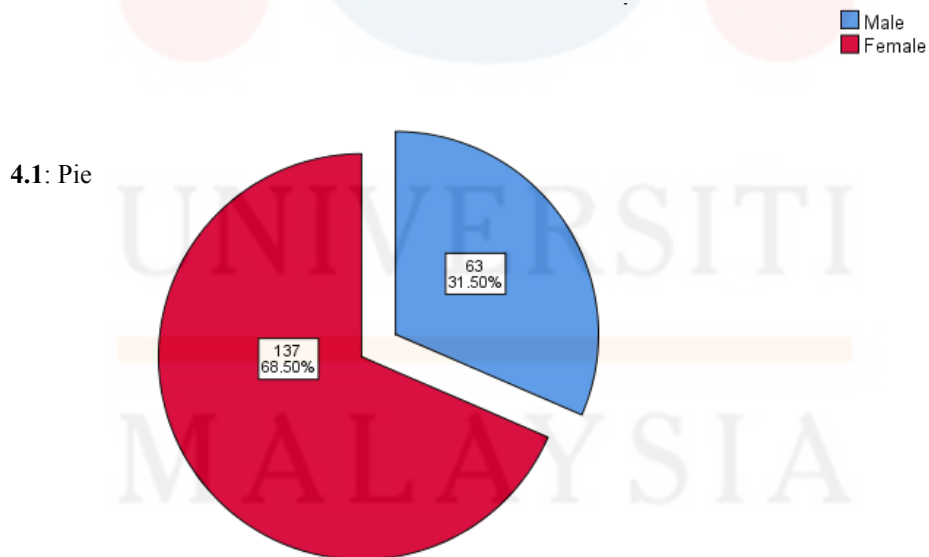
QUESTIONS	CRONBACH'S $\alpha$ VALUE
PART B: KNOWLEDGE	0.706019
PART C: PERCEPTION	0.729847
PART D: ATTITUDE	0.703048
PART E: AWARENESS	0.908059
TOTAL	0.762192

## CHAPTER 4

### RESULTS AND DISCUSSION

#### 4.1 Demographic profile

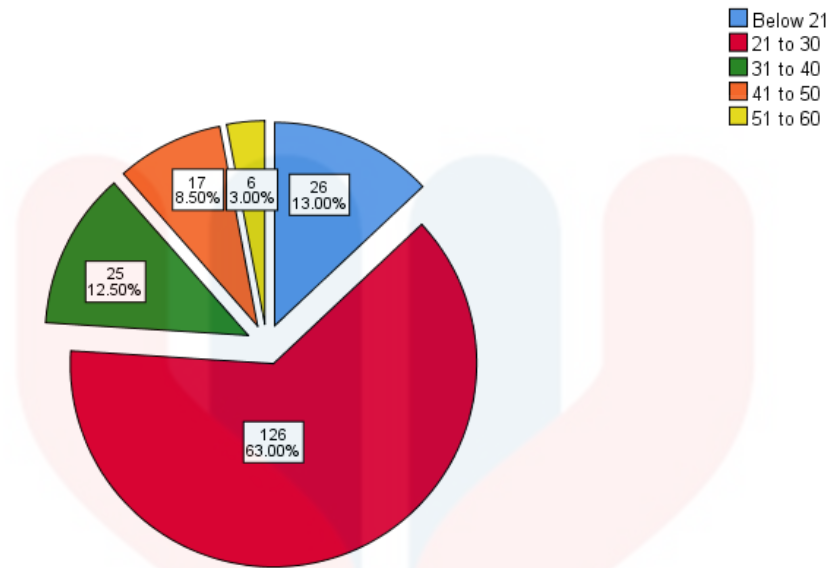
The demographic details included in the questionnaires are gender, age, education, number of visits, place of residence and reasons for visit used to answer the questionnaire. A total of 200 respondents were surveyed for this study, of which 68.5% were females, and 31.5% were male as shown in Figure 4.1. The majority of the respondents are aged between 21 – 30 years old as shown in Figure 4.2.



4.1: Pie

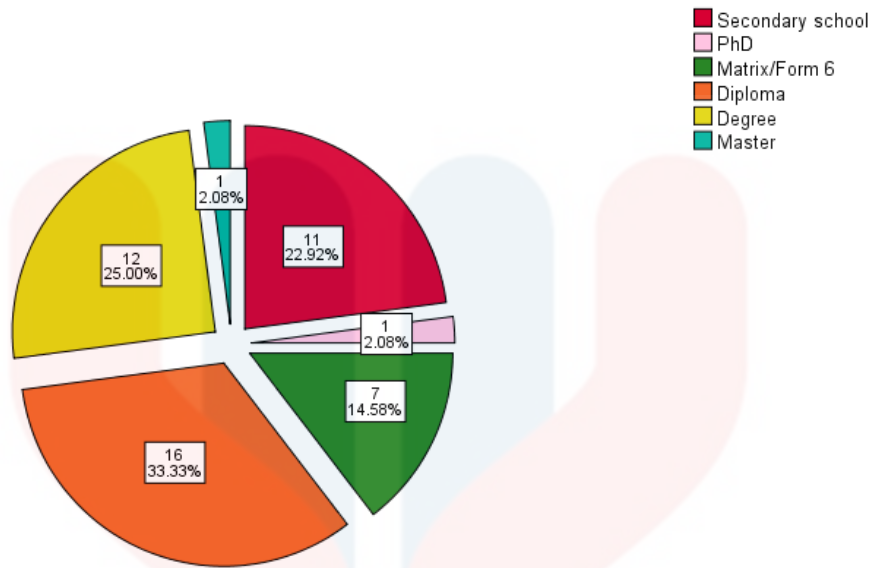
Figure  
Chart of

Percentage and Frequency of Gender

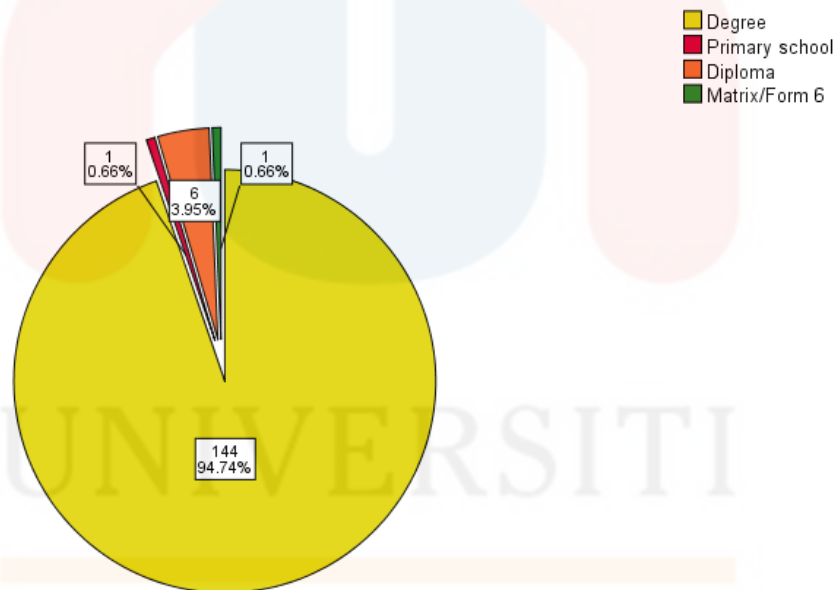


**Figure 4.2:** Pie Chart of Percentage and Frequency of Age

Of all the respondents, 24% are working adult while the rest are students. Figure 4.3 and 4.4 show the education level for working adult and students, respectively. Most of the working adults have Diploma degree, followed by Bachelor's degree. As for the students, they are mostly undertaking their Bachelor's degree in Universiti Malaysia Kelantan.

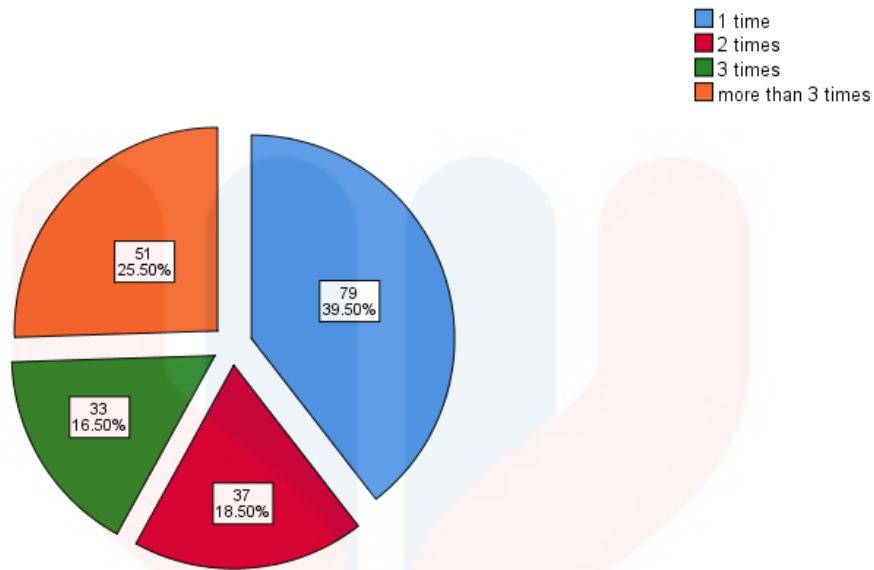


**Figure 4.3:** Pie Chart of Percentage and Frequency of Education (For Respondents Who Have Worked)



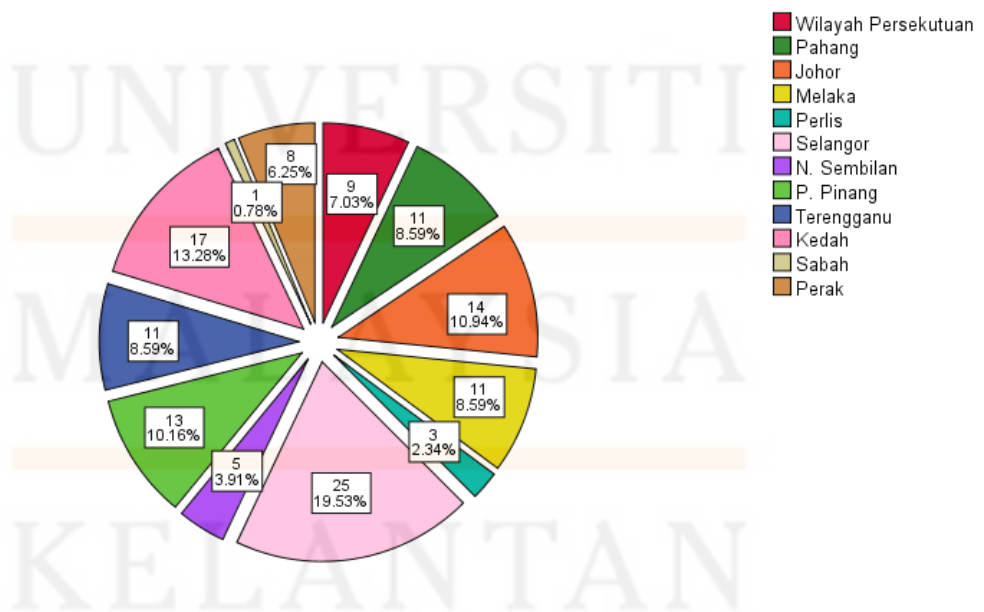
**Figure 4.4:** Pie Chart of Percentage and Frequency of Education (For Respondents Who Still Study)

Figure 4.5 shows the proportions of numbers of visit to Lata Keding. The pie chart shows that the majority of respondents have only visited Lata Keding once. This is reasonable as Lata Keding is a newly established place, and have only started operating around April 2019. Only 16.5% have visited Lata Keding three times.



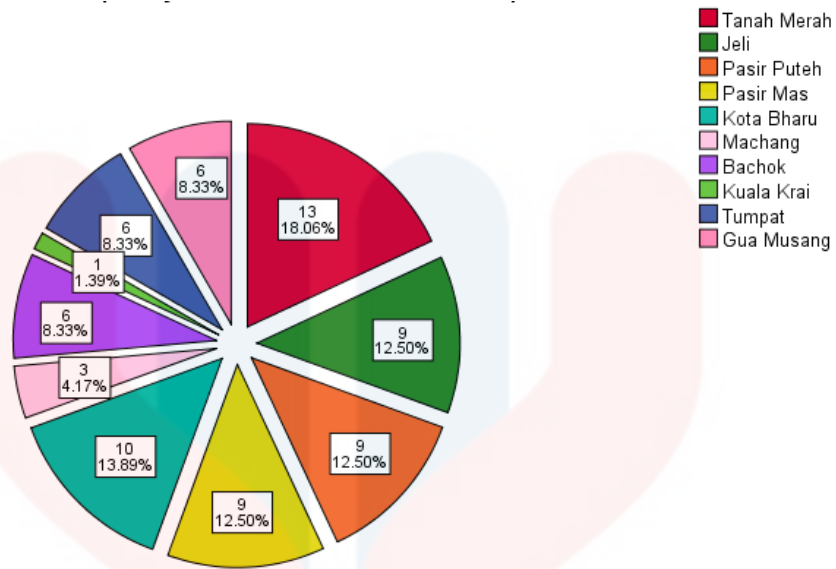
**Figure 4.5:** Pie Chart of Percentage and Frequency of Numbers of Visit

Figure 4.6 and 4.7 shows the respondents' resident state. 64% of the respondents who visited Lata Keding are from outside Kelantan, while 3% are from within Kelantan. Those who are outside Kelantan are mainly residing in Selangor which is about 385.8 kilometers away, while those who are from Kelantan are mainly residing in Tanah Merah, which is about 40 minutes away by car.



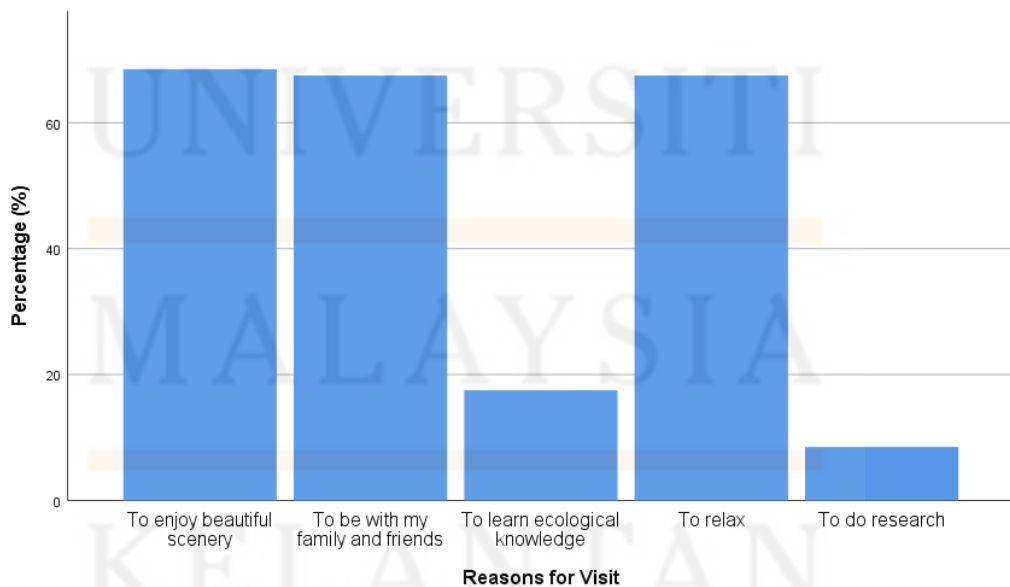
**Figure 4.6:** Pie Chart of Percentage and Frequency of Place of Residents (If The Respondent is From Outside of Kelantan)





**Figure 4.7:** Pie Chart of Percentage and Frequency of Place of Residents (If The Respondent is From Inside of Kelantan)

Figure 4.8 shows the reasons for visiting Lata Keding. Most of them came to Lata Keding for relaxation with family and friends, as well as to enjoy the beautiful scenery.



**Figure 4.8:** Bar Chart of Percentage of Reasons for Respondents Visit to Lata Keding

#### 4.2 Assessment on the respondents' knowledge, perception, attitude and awareness on the conservation of Lata Keding

It has shown in the Table 4.1 of statistical value given, in average, the respondents answer “agree” for most of the questions; more precisely they choose option 3,4 and 5 for most of the question. The median also indicate that the choose “agree” for most of the question.

For knowledge and awareness, the mode total score is 25.00 which means the answer option “strongly agree” or 5 has been picked frequently.

**Table 4.1:** Statistical Value for Knowledge, Perception, Attitude and Awareness.

		Statistics			
		KNOWLEDGE	PERCEPTION	ATTITUDE	AWARENESS
N	Valid	200	200	200	200
	Missing	0	0	0	0
Mean		22.1050	21.3800	20.7550	22.1200
Median		22.0000	22.0000	21.0000	22.0000
Mode		25.00	22.00	20.00 <sup>a</sup>	25.00
Sum		4421.00	4276.00	4151.00	4424.00

a. Multiple modes exist. The smallest value is shown

### 4.2.1 Knowledge

For the ‘Knowledge’ category, the study explored the respondent’s knowledge on whether or not (i) they know how to manage their waste accordingly; (ii) they know that throwing rubbish into the river leads to pollution; (iii) know the concept of conservation; (iv) know that construction activity has negative effects on the environment; (v) know that polluting the environment is harmful to the ecosystem. Figure 4.9 shows the percentage for each rating for each question in the Knowledge section. The results show that most of them know how to manage their waste accordingly (43.5%). They also know that throwing rubbish into the river will pollute the river (72%). When asked about whether or not they know the concept of conservation, most of them responded strongly that they know the concept of conservation (54.5%). They also show high affinity towards the notion that construction activities have negative effects on the environment (45%), and that polluting the environment will jeopardise the ecosystem health (65%).

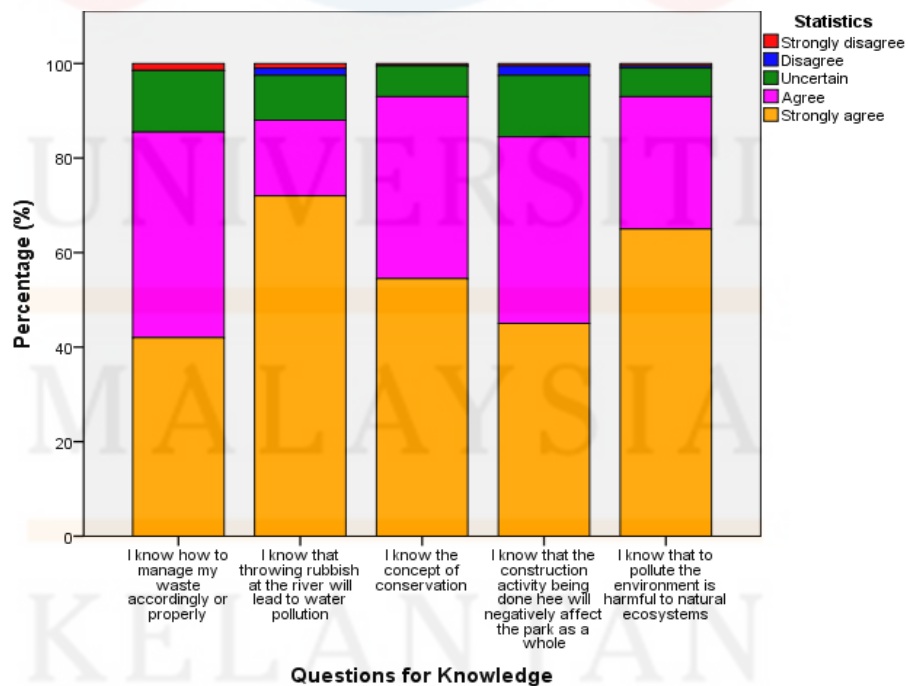


Figure 4.9: Bar Chart of Percentage of Questions of Knowledge Section

### 4.2.2 Perception

This section explores the perception of respondents on conservation. Figure 4.10 shows the percentage for each rating for each question in the Perception section. In general, 36.5% of the respondents think that Malaysians are worried about industrial activities that pollute the atmosphere and subsequently degrade human health. About 10% of the respondents are unsure of if Malaysians are worried about the consequences of industrial activities on human health. When asked if it is good that land is protected against exploitation, most of the respondents unanimously agree so (40%). They also showed unified agreement that tourism will benefit the whole community when nature is conserved (39%), although there is still a quarter of them who are unsure about it. As a whole, more than 70% of the respondents agree that environmental issue is a serious issue, and that educating the younger generations about the conservation of nature is very important (64%).

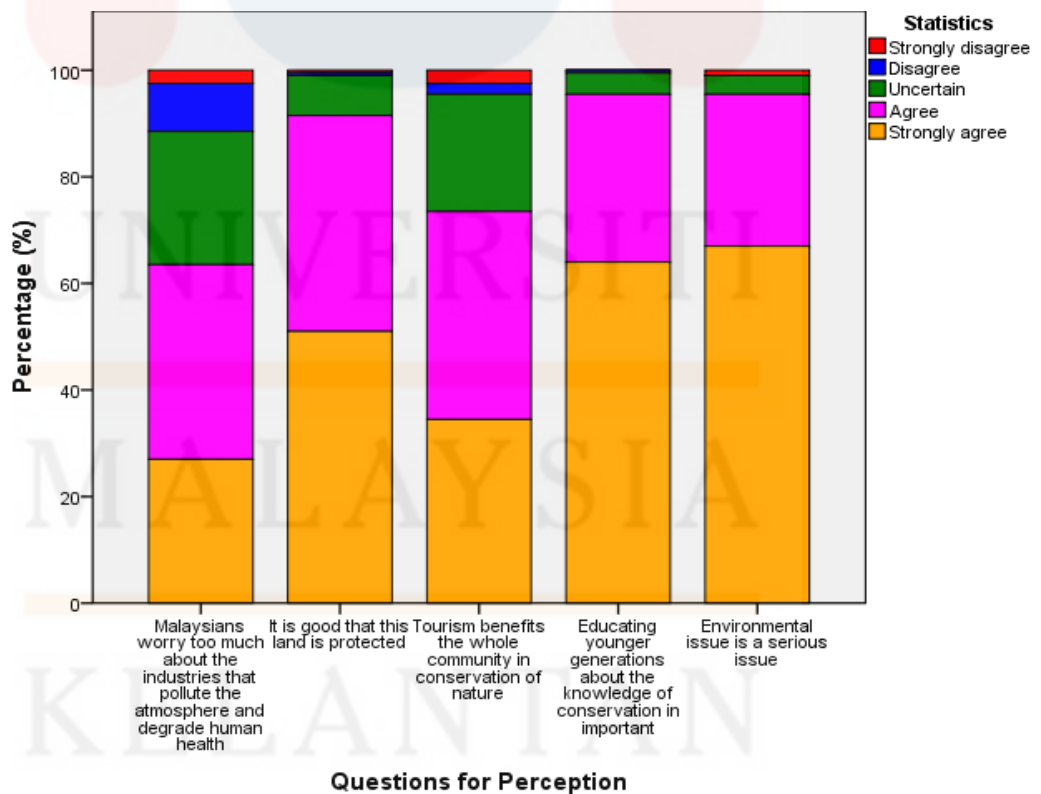


Figure 4.10: Bar Chart of Percentage of Questions for Perception

### 4.2.3 Attitude

Next, the study explored the attitude of the respondents towards conservation. Figure 4.11 shows the percentage for each rating for each question in the Attitude section. From the graph, more than 80% of the respondents are willing to help in maintaining the local environmental quality. This is also evidenced by their response that they responsibly throw rubbish in rubbish bins rather than littering (54%). Half of them also agreed that they will report to the local authorities if they find any instances of environmental pollution. While half of them are involved in conservation activities, a significantly 30% of them are unsure if they have involved or are involved in any conservation activities. Nonetheless, most of them answered that they will convey information about conservation to their friends and family (42.5%).

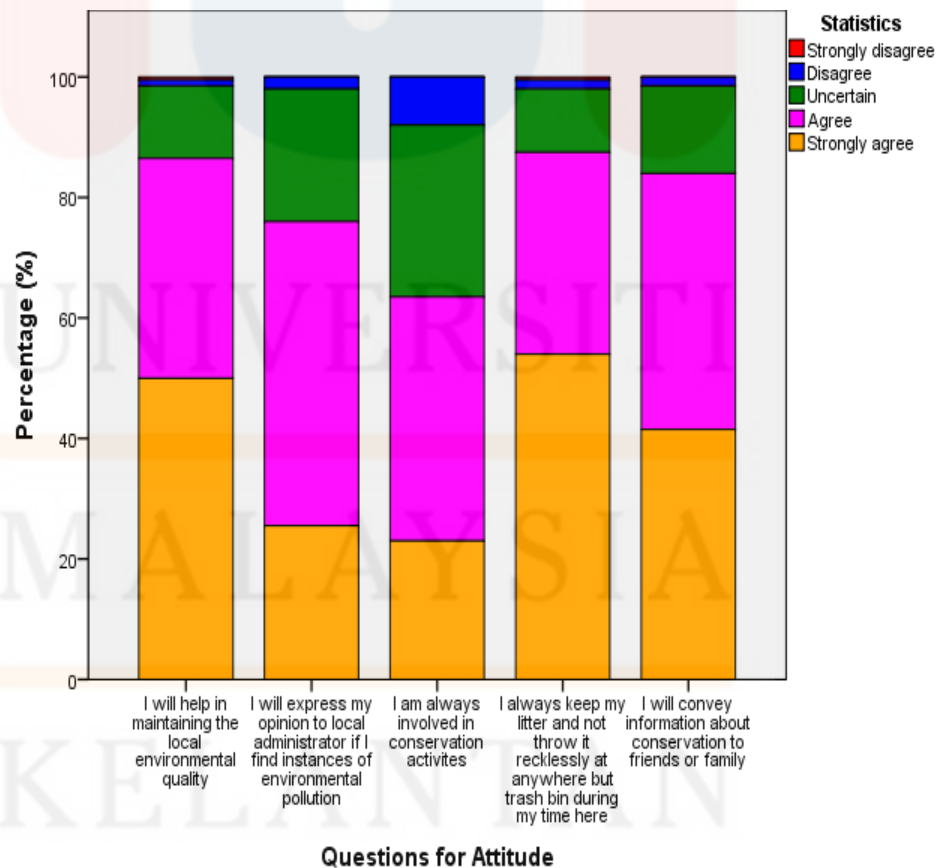
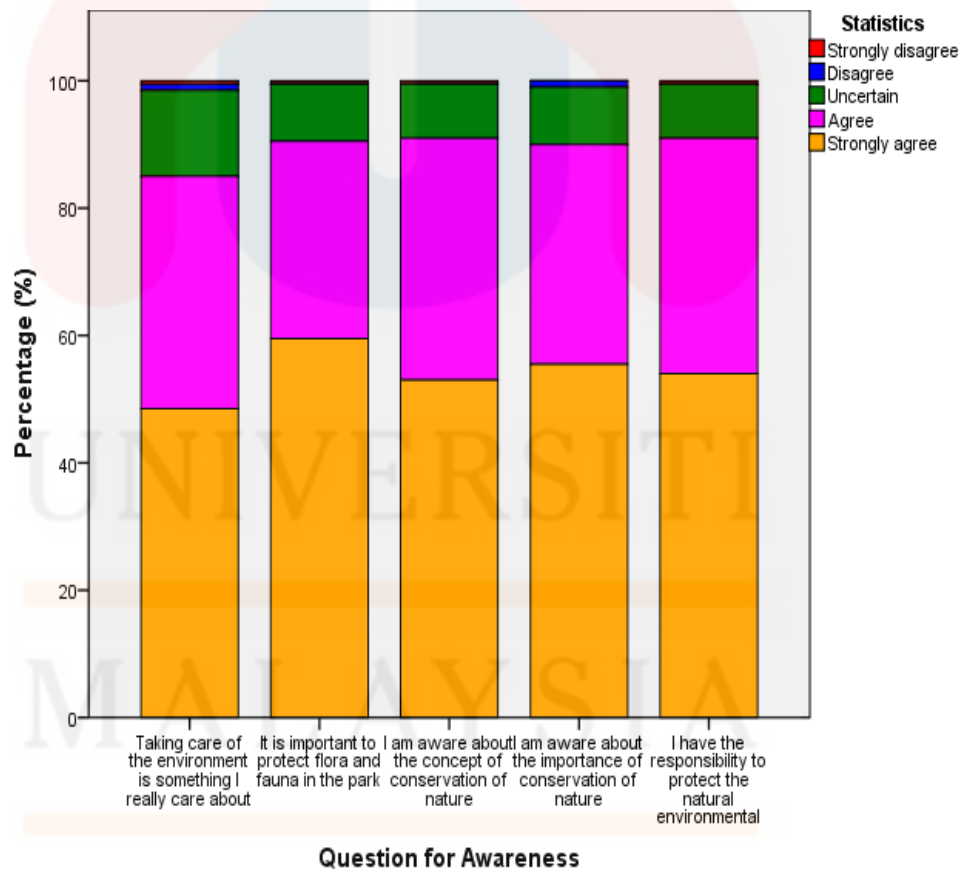


Figure 4.11: Bar Chart of Percentage of Questions for Attitude

#### 4.2.4 Awareness

This section explores the respondents' awareness on conservation. Figure 4.12 shows the percentage for each rating for each question in the Awareness section. In this category, more than 80% of the respondents responded that they are aware about conservation. For example, the graph show that a majority of them are aware of the conservation of nature (53%) and the importance (55.5%), respectively. They also believe that they are responsible to protect the natural environment (54%). They stated that they are concern about taking care of the environment (43.5%) and that it is important to protect the abundance of flora and fauna in nature (54.5%).



**Figure 4.12:** Bar Chart of Percentage of Total Scores for Awareness

### 4.3 Correlation of Knowledge, Perception, Attitude with Awareness

This section analyses the correlation between (i) knowledge and awareness; (ii) perception and awareness; (iii) attitude and awareness.

From Table 4.4, it is shows a moderate positive relationship between knowledge and awareness ( $r_s (118) = 0.566$ ). This means that knowledge indeed effects the awareness of tourist on the conservation of Lata Keding. Based on the significance value, there is strong evidence to suggest the relationship does exist ( $p = 0.000 < 0.01$ ). From Table 4.5, it is shows a moderate positive relationship between perception and awareness ( $r_s (118) = 0.473$ ). This means that perception indeed effects the awareness of tourist on the conservation of Lata Keding. Based on the significance value, there is strong evidence to suggest the relationship does exist ( $p = 0.000 < 0.01$ ). From Table 4.6, it is shows a moderate positive relationship between attitude and awareness ( $r_s (118) = 0.622$ ). This means that attitude indeed effects the awareness of tourist on the conservation of Lata Keding. Based on the significance value, there is strong evidence to suggest the relationship does exist ( $p = 0.000 < 0.01$ ).

**Table 4.2:** Spearman’s Correlation of Knowledge with Awareness

			KNOWLEDGE	AWARENESS
Spearman's rho	KNOWLEDGE	Correlation Coefficient	1.000	.566**
		Sig. (2-tailed)	.	.000
		N	200	200
	AWARENESS	Correlation Coefficient	.566**	1.000
		Sig. (2-tailed)	.000	.
		N	200	200

\*\* . Correlation is significant at the 0.01 level (2-tailed).

**Table 4.3:** Spearman's Correlation of Perception with Awareness

			PERCEPTION	AWARENESS
Spearman's rho	PERCEPTION	Correlation Coefficient	1.000	.473**
		Sig. (2-tailed)	.	.000
		N	200	200
	AWARENESS	Correlation Coefficient	.473**	1.000
		Sig. (2-tailed)	.000	.
		N	200	200

\*\* . Correlation is significant at the 0.01 level (2-tailed).

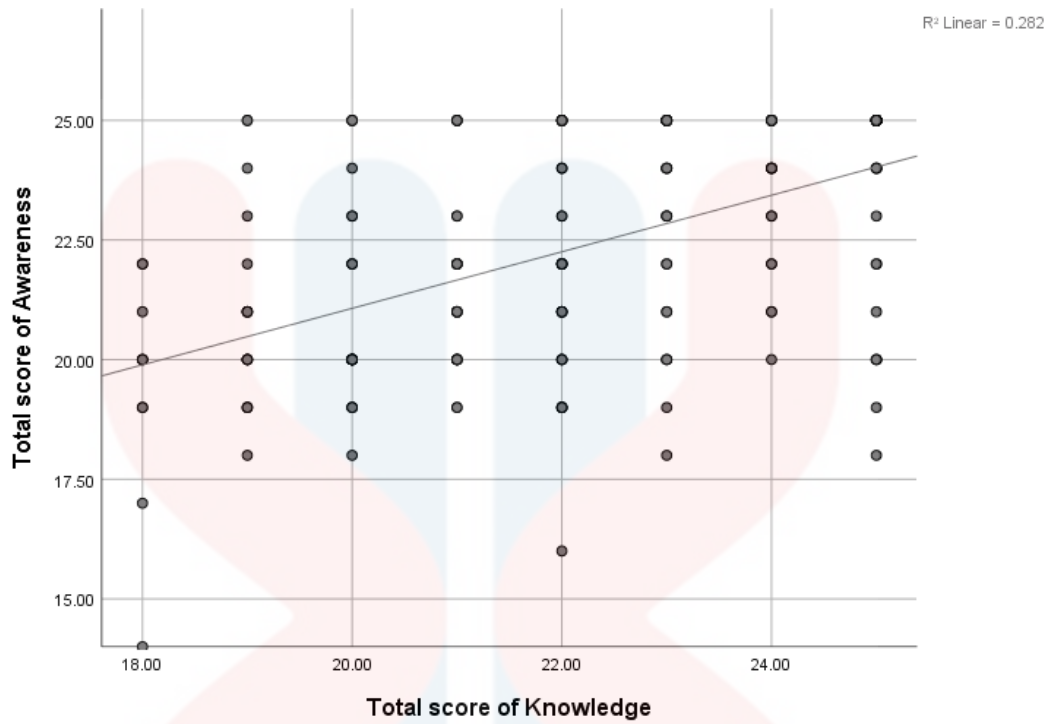
**Table 4.4:** Spearman's Correlation of Attitude with Awareness

			ATTITUDE	AWARENESS
Spearman's rho	ATTITUDE	Correlation Coefficient	1.000	.622**
		Sig. (2-tailed)	.	.000
		N	200	200
	AWARENESS	Correlation Coefficient	.622**	1.000
		Sig. (2-tailed)	.000	.
		N	200	200

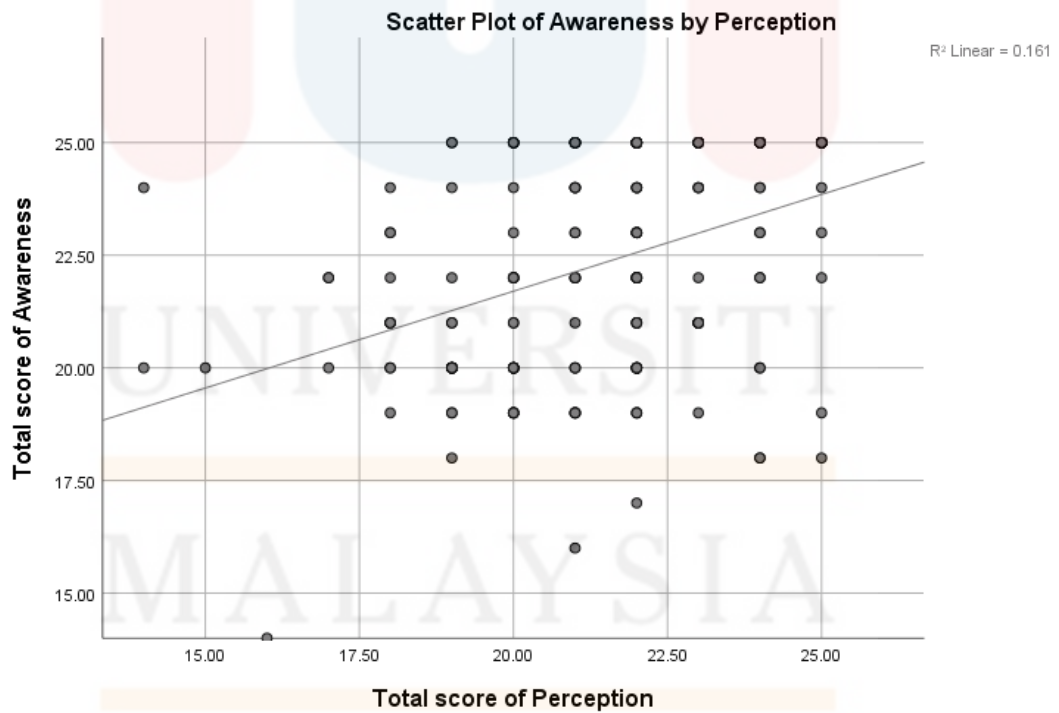
\*\* . Correlation is significant at the 0.01 level (2-tailed).

From Figure 4.13, the graph indicates a positive relationship between knowledge and awareness. As the total score of knowledge values increase, the total score of awareness values increase as well. From Figure 4.14, the graph indicates a positive relationship between perception and awareness. As the total score of perception values increase, the total score of awareness values increase as well. From Figure 4.15, the graph indicates a positive relationship between attitude and awareness. As the total score of attitude values increase, the total score of awareness values increase as well.

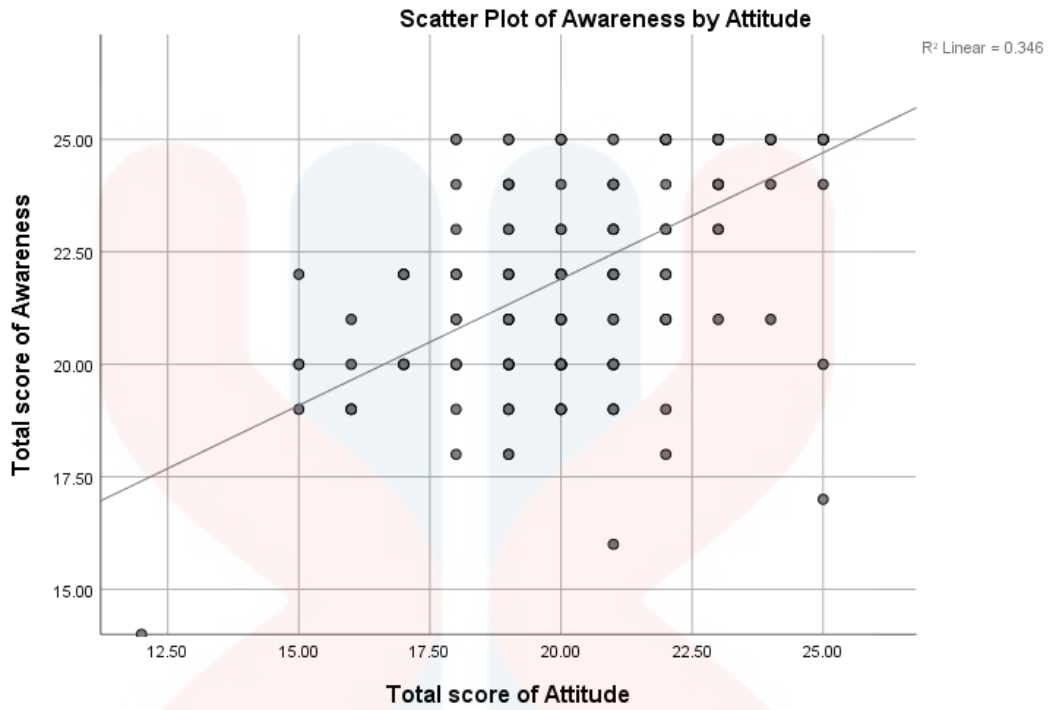




**Figure 4.13:** Correlation Graph of Awareness against Knowledge



**Figure 4.14:** Correlation Graph of Awareness against Perception



**Figure 4.15:** Correlation Graph of Awareness against Attitude

#### 4.4 Discussion

For knowledge, the statistical analysis demonstrates that the majority of the participants in this study had a high level of environmental knowledge. This high level of knowledge may be because to media and influences by their education. As mentioned, the majority of the respondents are from UMK. That might be the reason why the survey's results are more positive than negative, as they have wider knowledge of environmental issues. Generally, visitors with high levels of environmental awareness were more worried about the negative impacts of the place on the environment. This result is compatible with Wu, Yeh, and Huan (2017), who noticed that visitors with a higher level of environmental awareness appear to be more troubled with the condition of the nature.

In terms of perception, statistical analysis shows that the majority of the tourists in this study had a high level of environmental perception. This high level of environmental perception may be influences by their education. They most agree on the fact that environment issue is a serious issue; which has already proven by numerous other studies to suggest that it is the case. (Hillery and Melinda, 2001)

Next, for attitude, statistical analysis shows that the majority of the tourists in this study had a high level of environmental attitude. They are most agree on no littering. This may be due to they had been taught by the school, parents or their community to not do such things. Their income and the overall receiving value for money and overall satisfaction with the place also contributed to the level of attitude (Bruno, Darko and Ana, 2013)

For awareness, statistical analysis shows that the majority of the tourists in this study had a high level of environmental awareness. Tourist are aware of the concept and

the importance of conservation. This can also be contribute to involvement in green campaigns that have been conduction by government and NGOs that the main objective is to create awareness to public to protect the environment. They are most agree on protecting flora and fauna of Lata Keding.

The study shows that there are relationships between knowledge, perception and attitude of the tourists with the awareness level about the conservation of nature; especially in Lata Keding. This may be due to exposure of new knowledge in environment. Development of knowledge in tourists can increase environmental awareness about the environmental issues and conservation of nature. A good perception and attitude makes the good awareness level.

## CHAPTER 5

### CONCLUSION

This study tackles the impact of tourists' knowledge, perception and attitude on the awareness of the conservation of Lata Keding. In this study, it has shown that knowledge, perception and attitude has a positive relationship with awareness.

The level of knowledge regarding conservation of Lata Keding was found good. Majority of respondents were aware about the conservation concept and things such as the causes of pollution. The perception of the respondents regarding to the conservation of Lata Keding was found pretty good. They know that the conservation of the place is really important and taking care of the environment as a whole is crucial. They also have good way of attitude in regards to the conservation of Lata Keding. They have good understanding and involved in conservation of nature.

## **5.2 Limitations**

As with the majority of studies, the design of this study is subjected to limitations. The first one is the lack of studies based on recreational area just like this that can be referred to. Reviewing literature is an important part of any study because it helps to define the nature of the research work that has been done so far. However, this study had concentrated on the most contemporary and emerging research problem or too narrow research issue. This resulted in little, if any, prior research on this subject. Next, is the lack of cooperation from the Lata Keding management team due to them being busy.

## **5.3 Recommendation**

Since this study had only focused on the tourist who visited Lata Keding only, it is recommended that further studies be carried out on visitors from other ecological tourist attraction as well. Also, there are other factors that should be considered in future studies such as social, economic, health and race/ethnicity. Finally, future study be conducted for when the place is more established, say, in 3 years-time, as opposed to this preliminary study conducted during the early establishment of Lata Keding.

## REFERENCES

- Aertsens, J.; Mondelaers, K.; Verbeke, W.; Buysse, J.; Van Huylenbroeck, G. The influence of subjective and objective knowledge on attitude, motivations and consumption of organic food. *Br. Food J.* 2011, 113, 1353–1378.
- Baharum, A., Rusli, N. M., Sen, E. K. J., Zain, N. H. M., Ahmad, I. A., & Omar, M. (2017, October). Biodiversity awareness using mobile application: Ikimono Mikke. In *Information and Communication Technology Convergence (ICTC), 2017 International Conference on* (pp. 334-339). IEEE.
- Biodiversity and Forestry Management Division, Ministry of Natural Resources and Environment, Malaysia (2016). *National Policy on Biological Diversity 2016-2025*. Putrajaya, Malaysia: Biodiversity and Forestry Management Division, pp.10-14.
- Brick, C., & Lewis, G. J. (2014). Unearthing the “Green” Personality Core Traits Predict Environmentally Friendly Behavior. *Environment and Behavior*. *Environment and Behavior*, 48(5), 635-658. <https://doi.org/10.1177/0013916514554695>
- Chaiklin H. (2011). Attitudes, Behavior, and Social Practice. *J Sociol Soc Welfare*, 38 (1), 31.
- Chen, X.; Peterson, M.N.; Hull, V.; Lu, C.; Lee, G.D.; Hong, D.; Liu, J. Effects of attitudinal and socio-demographic factors on pro-environmental behaviour in urban China. *Environ. Conserv.* 2011, 38, 45–52.
- Chinese Hospitality Industry – a Case of Xiamen City. Retrieved 2019 from <https://core.ac.uk/download/pdf/82169396.pdf>
- D’Souza, C.; Taghian, M.; Lamb, P. An empirical study on the influence of environmental labels on consumers. *Corp. Commun. Int. J.* 2006, 11, 162–173.
- Dang, D. (2017) Travelers’ awareness and attitude towards environmentally sustainable tourism in Helsinki. Bachelor’s thesis; Degree Programme in Hotel, Restaurant & Tourism Management. Retrieved 2019 from [https://theseus.fi/bitstream/handle/10024/134537/Urkund%20Thesis%20updated\\_Ba%20Dang\\_15.10.17.pdf?sequence=1&isAllowed=y](https://theseus.fi/bitstream/handle/10024/134537/Urkund%20Thesis%20updated_Ba%20Dang_15.10.17.pdf?sequence=1&isAllowed=y)
- Frantz, C. M., & Mayer, F. S. (2014). The importance of connection to nature in assessing environmental education programs. *Evaluating Environmental Education*, 41, 85–89. <https://doi.org/10.1016/j.stueduc.2013.10.001>
- Grbac, Bruno & Težak Damijanić, Ana & Saftić, Darko. (2013). *Environmental Attitudes of Tourists*.

- Hillery, Melinda & Nancarrow, Blair & Griffin, Graham & Syme, Geoffrey. (2001). Tourist perception of environmental impact. *Annals of Tourism Research*. 28. 853-867. 10.1016/S0160-7383(01)00004-4.
- Ismail Mensah and Rebecca D.M. (2013) International Tourists' Environmental Attitude towards Hotels in Accra. *International Journal of Academic Research in Business and Social Sciences*, 3. Retrieved 2019 from <http://hrmars.com/admin/pics/1861.pdf>
- Kim, M.S., Kim Jinwon and Brijesh Thapa (2018) Influence of Environmental Knowledge on Affect, Nature Affiliation and Pro-Environmental Behaviors among Tourists. Department of Tourism, Recreation and Sport Management, University of Florida, Gainesville. Retrieved 2019 from [https://res.mdpi.com/sustainability/sustainability-10-03109/article\\_deploy/sustainability-10-03109.pdf?filename=&attachment=1](https://res.mdpi.com/sustainability/sustainability-10-03109/article_deploy/sustainability-10-03109.pdf?filename=&attachment=1)
- Krejcie, R.V. and D.W. Morgan (1970). Determining Sample Size for Research Activities. *Educ. Psychol. Measurements*, 30: 607-610
- Kurusu, K. (2016). *Pro-environmental Behaviors*. Japan: Springer Verlag.
- Lokhorst, A. M., Hoon, C., le Rutte, R., & de Snoo, G. (2014). There is an I in nature: The crucial role of the self in nature conservation. *Land Use Policy*, 39, 121-126. <https://doi.org/10.1016/j.landusepol.2014.03.005>
- McFarlane, B.L.; Boxall, P.C. The role of social psychological and social structural variables in environmental activism: An example of the forest sector. *J. Environ. Psychol.* 2003, 23, 79–87
- Mohammad Amizi A et al. (2016) Awareness Level Among Temiar Communities towards Forest Conservations in Gua Musang District Kelantan. *International Journal of Agriculture, Forestry and Plantation*, 3. Retrieved 2019 from <http://ijafp.com/wp-content/uploads/2016/06/FR-48.pdf>
- Mohammad Ghazi Ismail and Haliza Abdul Rahman (2011) Public Involvement on Environment Issues in Kota Bharu and Jeli District, Kelantan, Malaysia. *International Journal of Applied Science and Technology*, 2. Retrieved 2019 from [http://www.ijastnet.com/journals/Vol\\_2\\_No\\_3\\_March\\_2012/26.pdf](http://www.ijastnet.com/journals/Vol_2_No_3_March_2012/26.pdf)
- Mohd Kher Hussein 2012, 'Persepsi Pihak Berkepentingan Terhadap Pembangunan dan Pengurusan Landskap Hutan Rekreasi di Selangor, Malaysia', PhD thesis, Universiti Kebangsaan Malaysia, Bangi, Malaysia.
- Mohd Noor Mahmuddin Mohd Mahlil and Wan Seman Wan Bedollah (2019) Lata Keding Khazanah Rimba Jeli. Retrieved 2019 from <https://malaysiaaktif.my/54261>
- N.D. Cronbach's Alpha ( $\alpha$ ) using SPSS Statistics. Retrieved 2019 from <https://statistics.laerd.com/spss-tutorials/cronbachs-alpha-using-spss-statistics.php>



- N.D. Environmental Attitudes and Practices for South East Asian Countries. Retrieved 2019 from <https://blogs.ntu.edu.sg/hp331-2012-celestine/theories-of-attitudes-and-practices/attitudes/>
- N.D. Oxford Reference – environmental perception. Retrieved 2019 from <http://www.oxfordreference.com/view/10.1093/oi/authority.20110803095753657>
- N.D. Spearman's Rank-Order Correlation. Retrieved 2019 from <https://statistics.laerd.com/statistical-guides/spearmans-rank-order-correlation-statistical-guide.php>.
- N.D. What is Environmental Knowledge. Retrieved 2019 from <https://www.igi-global.com/dictionary/environmental-knowledge/40808>
- Pepper, M., & Leonard, R. (2016). How ecotheological beliefs vary among Australian Churchgoers and consequences for environmental attitudes and behaviors. *Review of Religious Research*, 58(1), 101-124. <https://doi.org/10.1007/s13644-015-0234-1>
- Plessis, L.D. (2010). Tourist's perceptions of tourism impacts on the environment: The case of South African National Parks. Magister Commercii in Tourism at the North-West University. Retrieved 2019 from <https://pdfs.semanticscholar.org/1ab0/56c4be21d1f07b66f6b3479834e529f4e71d.pdf>
- Rajapaksa, D et al. (2018) Pro-Environmental Behavior: The Role of Public Perception in Infrastructure and the Social Factors for Sustainable Developmen. Retrieved 2019 from [https://res.mdpi.com/sustainability/sustainability-10-00937/article\\_deploy/sustainability-10-00937.pdf?filename=&attachment=1](https://res.mdpi.com/sustainability/sustainability-10-00937/article_deploy/sustainability-10-00937.pdf?filename=&attachment=1)
- Ramkissoon, H.; Smith, L.D.G.; Weiler, B. Testing the dimensionality of place attachment and its relationships with place satisfaction and pro-environmental behaviours: A structural equation modelling approach. *Tour. Manag.* 2013, 36, 552–566.
- Snowden, J. (2014). A brief background of scouting in the United States 1910 to today [Web blog message]. Retrieved on April 11, 2019 from <http://www.troop97.net/bsahist1.htm>
- Solberg, A.M. (2017) Tourist Perceptions of their Environmental Impacts in Tanzania. Retrieved 2019 from [https://etd.ohiolink.edu/!etd.send\\_file?accession=kent1498135227020184&disposition=inline](https://etd.ohiolink.edu/!etd.send_file?accession=kent1498135227020184&disposition=inline)
- Stefanica, M and Butnaru, G.I. (2015) Research on tourists' perception of the relationship between tourism and environment. 7<sup>th</sup> International Conference on Globalization and Higher Education in Economics and Business

- Administration, GEBA 2013. Retrieved 2019 from <https://core.ac.uk/download/pdf/82027306.pdf>
- Surbhi, S (2016) Difference Between Correlation and Regression. Retrieved 2019 from <https://keydifferences.com/difference-between-correlation-and-regression.html>
- Tavares, J. (2014) Environmental Education and Tourism. *Mediterranean Journal of Social Sciences*, 5. Retrieved 2019 from <http://www.mcser.org/journal/index.php/mjss/article/download/4368/4271>
- Whitmarsh, L. Are flood victims more concerned about climate change than other people? The role of direct experience in risk perception and behavioural response. *J. Risk Res.* 2008, 11, 351–374.
- Wu, W.C.; Yeh, S.S.; Huan, T.C (2017). Enduring Involvement of Scuba Divers and its Relations to Their Environmental Knowledge and Environmental Behaviour. *Int. J. Tour. Res.*, 19, 203-213.
- Wong K. K. (2003). The Environmental Awareness of University Students in Beijing, China. *J Contemp China*, 12 (36), 519.
- WWF Malaysia 1996, National ecotourism plan (NEP). Malaysia: Petaling Jaya
- Yucel M., Altunkasa F., Gucray S., Uslu C., Say N. P. (2006). Investigation on the Environmental Awareness Level and Its Developing Possibilities in Adana. *Akdeniz University Journal of the Faculty of Agriculture*, 19 (2), 217.
- Yuxi, Z and Linsheng, Z. (2017) Impact of Tourist Environmental Awareness on Environmental Friendly Behaviors: A Case Study from Qinghai Lake, China. *Journal of Resources and Ecology*, Vol. 8 No.5. Retrieved 2019 from <http://www.jorae.cn/fileup/PDF/2017-5-502.pdf>
- Zsoka A. N. (2008). Consistency and “Awareness Gaps” in the Environmental Behavior of Hungarian Companies. *J Clean Prod*, 16, 322.
- Zsoka A., Szerenyi Z. M., Szechy A., Kocsis T. (2013). Greening due to Environmental Education? Environmental Knowledge, Attitudes, Consumer Behavior and Everyday Pro-environmental Activities of Hungarian High School and University Students. *J Clean Prod*, 48, 126.