



**UNIVERSITI PUTRA MALAYSIA**

***RELATIONSHIP BETWEEN ATTITUDE, EMOTION AND CONCERN  
TOWARDS RESPONSIBLE ECOTOURISM BEHAVIOUR IN PENANG  
NATIONAL PARK, MALAYSIA***

**HAYATI BINTI IBRAHIM**

**FPAS 2022 14**



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By

**HAYATI BINTI IBRAHIM**

**Thesis Submitted to the School of Graduate Studies, Universiti Putra  
Malaysia, in Fulfilment of the Requirements for the Degree of  
Doctor of Philosophy**

**August 2022**

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Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfillment of the requirement for the degree of Doctor of Philosophy

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**August 2022**

**Chairman : Associate Professor Manohar a/l Mariapan, PhD**  
**Faculty : Forestry and Environment**

National parks should be able to provide economic benefits to help in wildlife conservation. However, tourism operations in Penang National Park are unable to bring economic benefits to the local community. This circumstance has put extreme pressure on the natural resources in Penang National Park as a result of illegal activities carried out there as a result of poverty and economic problems. Therefore, this study was conducted to investigate the ecotourist responsible behaviour in purchasing local products and services for wildlife conservation in Penang National Park. As environmental psychology is crucial in determining human behaviour, this study employed the Theory of Planned Behaviour to examine the relationship between attitude, emotion, and concern. This study is a quantitative research study and the data were collected cross-sectionally. Samples were obtained using the purposive sampling method and 220 set questionnaires were distributed face to face at the Penang National Park. The instrument's high internal consistency during the pilot study has led to the implementation of actual research. Statistical Software Packages, namely SPSS Amos version 26.0, were used to perform data analysis by structural equation modelling (SEM). Out of the nine hypotheses proposed, eight of them are supported. The findings of the study found that attitude towards behaviour has a significant effect on intention (H1), anticipated emotion has a significant effect on attitude and intention (H2 and H3), environmental concern has a significant effect on attitude and anticipated emotion (H4 and H6). However, the study found that environmental concern has no significant effect on intention (H5). Mediation analysis found that attitude is a mediator for the relationship between anticipated emotion and intention (H7), and attitude is also a mediator for the relationship between environmental concern and intention (H8). Mediation analysis also found that anticipated emotion is a mediator for the relationship between environmental concern and intention (H9). Theoretically, this study would add to the body of knowledge by incorporating the influence of

environmental concern and anticipated emotion into the extended theory of planned behaviour (TPB). This study was the first to examine these two constructs in the extended TPB model, which has demonstrated a high level of explained variance in intention (61%). The findings of this study are critical in assisting stakeholders in the ecotourism industry to plan an effective marketing strategy in order to promote local products and services. An effective marketing strategy can attract ecotourist responsible behaviour in purchasing the local products and services that could support the local economies. Therefore, in formulating effective marketing strategies, marketers must insert elements of emotion and environmental concern in advertising or promotional tools (such as banners, posters, videos, pictures, flyers, etc.) to attract ecotourist responsible behaviour for wildlife conservation.



Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia  
sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

**HUBUNGAN ANTARA SIKAP, EMOSI DAN KEPRIHATINAN TERHADAP  
TINGKAH LAKU BERTANGGUNGJAWAB EKOPELANCONGAN DI TAMAN  
NEGARA PULAU PINANG, MALAYSIA**

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Taman negara sepatutnya dapat memberikan manfaat ekonomi untuk membantu pemuliharaan hidupan liar. Namun, aktiviti pelancongan di Taman Negara Pulau Pinang tidak mampu untuk memberikan manfaat ekonomi terhadap masyarakat tempatan. Situasi ini telah memberikan tekanan melampau terhadap sumber alam semulajadi yang terdapat di Taman Negara Pulau Pinang akibat daripada kegiatan aktiviti haram yang telah dijalankan di sana akibat kemiskinan dan masalah ekonomi. Oleh yang demikian, kajian ini dijalankan untuk menyiasat tingkah laku bertanggungjawab ekopelancong dalam membeli produk dan perkhidmatan tempatan untuk pemuliharaan hidupan liar di Taman Negara Pulau Pinang. Memandangkan kajian psikologi persekitaran penting dalam menentukan tingkah laku manusia, kajian ini menggunakan Teori Tingkah Laku Terancang untuk mengkaji hubungan antara sikap, emosi dan keprihatinan. Kajian ini merupakan kajian penyelidikan kuantitatif dan data dikumpul secara keratan rentas. Sampel kajian diperolehi dengan menggunakan teknik persampelan bertujuan dan sebanyak 220 set borang soal selidik diedarkan secara bersemuka di Taman Negara Pulau Pinang. Konsistensi dalaman yang tinggi daripada instrumen kajian semasa menjalankan kajian rintis telah membawa kepada pelaksanaan penyelidikan sebenar. Pakej Perisian Statistik, iaitu SPSS Amos versi 26.0 telah digunakan untuk menganalisis data secara pemodelan persamaan struktur (SEM). Daripada sembilan hipotesis yang dicadangkan, lapan daripadanya telah disokong. Dapatan kajian mendapati sikap mempunyai kesan yang signifikan terhadap niat (H1), jangkaan emosi mempunyai kesan yang signifikan terhadap sikap dan niat (H2 dan H3), keprihatinan terhadap alam sekitar memberi kesan yang signifikan terhadap sikap dan jangkaan emosi (H4 dan H6). Walau bagaimanapun, dapatan kajian menunjukkan keprihatinan terhadap alam sekitar tidak mempunyai kesan yang signifikan terhadap niat (H5). Analisis pengantaraan mendapati bahawa sikap adalah pengantara untuk hubungan

antara jangkaan emosi dan niat (H7), dan sikap juga merupakan pengantara untuk hubungan antara keprihatinan terhadap alam sekitar dan niat (H8). Analisis pengantaraan juga mendapati bahawa jangkaan emosi adalah pengantara untuk hubungan antara keprihatinan terhadap alam sekitar dan niat (H9). Dapatan kajian ini adalah kritikal dalam membantu pihak berkepentingan dalam industri ekopelancongan untuk merancang strategi pemasaran yang berkesan bagi mempromosikan produk dan perkhidmatan tempatan. Secara teorinya, kajian ini telah memberi sumbangan baru terhadap bidang ilmu pengetahuan dengan menghubungkan pengaruh keprihatinan terhadap alam sekitar dan jangkaan emosi ke dalam Teori Tingkah Laku Terancang (TPB). Ini merupakan kajian pertama yang mengkaji kedua-dua konstruk ini secara serentak menggunakan model TPB dan ianya menunjukkan tahap varians yang tinggi (61%). Strategi pemasaran yang berkesan boleh menarik minat tingkah laku bertanggungjawab eko-pelancong dalam membeli produk dan perkhidmatan tempatan yang boleh menyumbang kepada ekonomi tempatan. Oleh itu, dalam merangka strategi pemasaran yang berkesan, pemasar hendaklah memasukkan unsur emosi dan keprihatinan alam sekitar dalam alat pengiklanan atau promosi (seperti sepanduk, poster, video, gambar, risalah, dan lain-lain) untuk menarik minat tingkah laku bertanggungjawab ekopelancong untuk pemuliharaan hidupan liar.

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

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## LIST OF ABBREVIATIONS

WWF	World Wildlife Fund
ERB	Ecotourist Responsible Behaviour
TPB	Theory of Planned Behaviour
EC	Environmental Concern
AE	Anticipated Emotion
INT	Intention
ATP	Attitude towards Purchasing
SEM	Structural Equation Modeling
PLS-SEM	Partial Least Squares Structural Equation Modeling
CB-SEM	Covariance Base Structural Equation Modeling
AMOS	Analysis of Moment Structures
CFA	Confirmatory Factor Analysis
PCFA	Pooled Confirmatory Factor Analysis
GDP	Gross Domestic Product

# CHAPTER 1

## INTRODUCTION

### 1.1 Chapter Overview

This chapter aims to set out the study's background, problem statement, research questions, and objectives. In addition, it also covers the significance of the study, the scope of the investigation, and the operational definition of key terms. Finally, it also provides a description of the structure of the thesis.

### 1.2 Background of Study

The occurrence of multiple natural disasters has increased public awareness of environmental concerns. Therefore, environmental sustainability is crucial so that future generations can have a better quality of life over time. To preserve the sustainability of nature, poverty must be eradicated from the local population to prevent excessive use of natural resources. Wildlife that is a part of natural resources is essential since it helps to maintain the stability of the ecosystem. Since the population of wildlife is declining, wildlife conservation will help to ensure a better future.

The expansion of Malaysia's tertiary industries, such as tourism and hospitality services, is a primary driver of the country's robust economic growth. The tourist business in Malaysia is the second greatest source of income from foreign exchange, and it has a positive impact on the economy by generating a huge number of employment openings. The capacity of Malaysia to draw a greater number of visitors from other countries has resulted in a sizeable increase in the annual growth rate of the Gross Domestic Products (GDP). After the production of goods and the trade of commodities, Malaysia's tourism industry is the country's third largest contributor to GDP (Hirschmann, 2020). Malaysian econometric models of 2022, it is anticipated that tourism income will trend around RM75,550 million over the long run, demonstrating that this industry is still relevant to the country.

Ecotourism is one of the fastest expanding segments of the tourism business in Malaysia. Malaysia is well-known as one of the world's 12 megadiverse places, featuring a diverse range of ecosystems including mangroves, swamps, mountains, coral reefs, limestone, and caverns. However, Malaysia is third in the world in terms of the number of endangered species, with 686 plants and 225 animals on the International Union for Conservation of Nature's Red List of Threatened Species (IUCN, 2012). In Malaysia, through the National Eco-tourism Plan 2016-2025, the government has shown their important role by

establishing collaboration between the tourism industry and national parks for wildlife conservation.

Responsible ecotourism is a socially conscious kind of travel that is also environmentally sustainable. It does not only mean boosting awareness of environment and visited areas, but also of local communities that rely on tourism for economic support. Responsible ecotourism encourages visitors to shop in local markets, favour locally owned hotels and eateries, and pick local tour operators. In this way, the money visitors spend on their trips can have a direct, beneficial effect on local economies and this could lead to helps in wildlife conservation. In Malaysia, the ecotourism business has sought to increase its activities in collaboration with Penang National Park so that visitors can experiences the region's natural magnificence while supporting local economies for wildlife conservation. However, it is difficult to maintain a stable balance between wildlife conservation and ecotourism activities in Penang National Park. At the same time, the issue of the ecotourism industry's focus on local communities and tourism businesses has not yet been resolved.

### **1.3 Problem Statement**

Ideally, a national park should generate economic benefits in local communities for wildlife conservation. In Malaysia, Penang National Park (PNP) is not only home to 417 species of flora and 143 species of fauna, but also a popular ecotourism destination in Penang State. Penang received a high number of domestic and foreign tourists and was rated the seventh-best in Asia by Agoda.com. In 2019, 239.1 million tourists were recorded in Penang by Malaysia Socio-Economic Statistics, with a growth of 8.1% compared to the previous year, which was 221.3 million. Total tourism expenditure maintained double-digit growth of 11.5%. It increased in 2019 by 103.2 billion compared to 92.6 billion in 2018. Meanwhile, the average number of days stayed in 2019 was 2.52 days. It has also increased by 3.1%, compared to the previous year.

However, in Penang National Park, tourism activities cannot stimulate the local economy, putting intense pressure on natural resources in Penang National Park from illegal activities. Although tourist revenue contributes to the country's income, tourists do not purchase local products or use local services due to ineffective marketing promotion and advertising. This has not resulted in economic growth in Penang. According to the Penang Tourist Survey (2018), 70.2% of visitors prefer to stay in hotels, while less than 29.8% prefer to stay in other accommodations, such as homestays operated by local communities. According to the reports, visitors like to explore Penang independently, with only 5% opting for tour packages. Visitors prefer to eat at a standard or larger restaurant in town. As a result, Penang's local economic growth rate fell to 3.8% in 2019 from 5.1% in 2018. Poverty persists in Penang State communities despite a decline in local economic growth. According to the Department of Malaysian Statistics 2020, poverty in Penang is increasing, with 11.3% in 2016

and 13.2% in 2019. A total of 53,362 families have been identified as being in relative poverty.

The issue of poverty and economic problems in local communities has put intense pressure on Penang National Park as a wildlife conservation centre, causing escalating problems. As a solution, this research will emphasis on the ecotourist responsible behaviour (ERB) towards purchasing local products and services for wildlife conservation at the Penang National Park. Through ERB, local communities should get an economic benefit as this money will get back to local people. Purchasing local products and services could alleviate poverty in local communities and wildlife in Penang National Parks should be conserved with the promotion of ERB.

In the literature, Theory of Planned Behaviour (TPB) has frequently employed to study human conservation behaviour (Kaiser, 2006). Proposed by Ajzen in 1985, TPB tells how an individual's decision to engage in a specific behaviour is predicted by their intention to engage in that behaviour. Theoretically, TPB has successfully predicted and explained a wide range of environmental behaviour and intention, including purchasing, advertising, entrepreneurship, plagiarism, and sustainability (Al-Jubari, Hassan, & Lián, 2019). TPB was used in this study to understand ERB towards purchasing local products and services for wildlife conservation in Penang National Park.

According to TPB, intentions are determined by three variables: attitude towards behaviour, subjective norm, and perceived behavioural control (PBC) (Ajzen, 1991). Previously, TPB is heavily used in PBC to prove its influence on intention (Lee & Lina Kim, 2018; Xiao & Wong, 2020). However, TPB has been criticized for ignoring the functions of attitude to predict an intention. Attitude is a set of affects, beliefs, and behaviours oriented toward a specific object, person, thing, or event. Attitudes are synonymous with endurance. It means that someone who has a favourable impression of an object, person, thing, or event will continue to have such opinion.

TPB is a psychological theory heavily used in environmental psychology to solve a problem between human behaviour and environments in different kinds of settings, including social settings, built environments, learning environments, and informational settings. Previously, TPB is heavily used by scholars in extending the personal norms to study environmental behaviour (Oteng et al., 2020). However, scholars have lacked to integrate into the theory the role of emotion in the formation of environmental behaviour and decision-making processes. Emotion has the power to impact behaviour and can lower the barrier between humans and wildlife in the subject of environmental psychology. Human emotions are not only important for wildlife conservation, but they also have the capacity to influence the formulation of protection-related policy decisions. Emotions have an impact on many mental and physical processes when they

are triggered, including perception, attention, inference, learning, memory, goal selection, motivational priorities, physiological reactions, motor behaviours, and the decision-making process underlying activities.

In addition to this, TPB is utilised extensively in environmental research to investigate environmental behaviour. In the past, researchers had a tendency to place a greater emphasis on being environmentally conscious (Ahmad et al., 2020; Jain et al., 2020). The environmental concern construct, on the other hand, is hardly ever used in TPB when it comes to environmental research. Environmental concern is a general belief in environmental protection that inspires people to engage in more responsible behaviour. Scholars are increasingly turning to the concept of environmental concern in order to investigate the problem of natural disasters. Concerns about the environment have been developed by academics and environmentalists in order to evaluate how people treat the environment. Given the importance of TPB in environmental psychology, this study was carried out to investigate the association between attitude, emotion, and concern toward wildlife conservation at the Penang National Park.

#### **1.4 Research Questions**

This study intends to address the following research questions:

- 1.4.1 Does attitude towards purchasing (ATP) local products and services for wildlife conservation has significant influence on the intention (INT)?
- 1.4.2 Does anticipated emotion (AE) has significant influence on attitude towards purchasing (ATP) local products and services for wildlife conservation and the intention (INT)?
- 1.4.3 Does environmental concerns (EC) has significant influence on anticipated emotion (AE), attitude toward purchasing (ATP) local products and services for wildlife conservation, and the intention (INT)?
- 1.4.4 Does attitude towards purchasing (ATP) local products and services for wildlife conservation mediates the relationship between anticipated emotion (AE) and intention (INT)?
- 1.4.5 Does attitude towards purchasing (ATP) local products and services for wildlife conservation mediates the relationship between environmental concern (EC) and intention (INT)?
- 1.4.6 Does anticipated emotion (AE) mediates the relationship between environmental concern (EC) and intention (INT) to purchase local products and services for wildlife conservation in Penang National Park?

## **1.5 Research Objectives**

The general objective of this study was to investigate the relationship between attitude, anticipated emotion, and environmental concern in order to understand the ERB towards purchasing local products and services for wildlife conservation in Penang National Park. The following research objectives were intended to be achieved by the present research.

- 1.5.1 To determine the effect of attitude towards purchasing (ATP) local products and services for wildlife conservation on the intention (INT).
- 1.5.2 To determine the effect of anticipated emotion (AE) on attitude towards purchasing (ATP) local products and services for wildlife conservation and the intention (INT).
- 1.5.3 To determine the effect of environmental concern (EC) on anticipated emotion (AE), attitude towards purchasing (ATP) local products and services for wildlife conservation, and the intention (INT).
- 1.5.4 To assess the mediating role of attitude towards purchasing (ATP) local products and services for wildlife conservation in the relationship between anticipated emotion (AE) and the intention (INT).
- 1.5.5 To assess the mediating role of attitude towards purchasing (ATP) local products and services for wildlife conservation in the relationship between environmental concern (EC) and the intention (INT).
- 1.5.6 To assess the mediating role of anticipated emotion (AE) in the relationship between environmental concern (EC) and intention (INT) to purchase local products and services for wildlife conservation in Penang National Park.

## **1.6 Significance of the Study**

Theoretically, this study is significant for academics because its findings will be able to add to their understanding of the relationship between attitude and intention. This study sought to narrow the gap between the Theory of Planned Behaviour (TPB) and reality by emphasizing the importance of attitudes in shaping intention. As an example of environmental research, this study was also used to fill in the gaps in TPB regarding emotional function exploration. Moreover, this study is critical for filling in theoretical gaps in measuring environmental concern in environmental behaviour, as it was previously used widely by researchers create environmental awareness.

This study is also critical for ecotourism marketers because it identifies the factors influencing REs' decision to purchase local products and services. Stimulating the local economy is critical for poverty alleviation and wildlife

conservation. Marketers and other stakeholders can use the findings of this study to develop an effective marketing strategy for promoting the products and services of small businesses. The marketing strategy is particularly effective in promoting local food, handicrafts, homestay accommodations, and tour guide services.

## **1.7 Scope of Study**

This study aimed to investigate what constitutes Ecotourist Responsible Behaviour (ERB) purchasing local products and services for the conservation of wildlife. The Penang National Park was selected as the study site because it is a popular ecotourism destination that attracts domestic and international visitors. It is also a wildlife conservation area dedicated to preserving endangered species (Turtle Conservation Centre).

## **1.8 Operational Definition of Key Terms**

### **a) Ecotourist Responsible Behaviour (ERB)**

Refers to the behaviour of a person who travels for a set number of days in a natural area and engage in low-impact, non-consumptive, and locally oriented activities to preserve natural resources.

### **b) Wildlife Conservation**

Refers to the act of protecting animal species to maintain the natural balance and stability of the ecosystem.

### **c) Local Communities**

Refers to poor communities near national parks in rural areas. They depend on wildlife as their primary source of income.

### **d) Intention**

Refers to the motivational factors that influence behaviour. It means that the stronger the intention to perform the behaviour, the more likely it will be performed (Ajzen, 1991).

**e) Attitude**

Refers to evaluating specific issues, objects, or events when considering particular behaviour.

**f) Environmental Concern**

Refers to a general belief in environmental conservation which motivates individuals to adopt more responsible behaviours (Fransson & Gärling, 1999).

**g) Anticipated Emotion**

It is an emotion that is not experienced directly, but it can be defined as the expectation of how a person will feel (gains or losses) regarding the decision-making that has been made.

**1.9 Organization of the Thesis**

This thesis comprises five chapters and a brief synopsis of each chapter is discussed in this section. The following paragraphs outline the content of each chapter.

**Chapter 1 – Introduction**

This chapter establishes the research context by discussing several issues, including ecotourist responsible behaviour (ERB), wildlife conservation, and the Theory of Planned Behaviour (TPB). Additionally, the problem statement, research questions, and research objectives are included. The significance of the study for academics and practitioners is then discussed, and the scope of the study is defined. This chapter concludes with a glossary of the key terms contained in this study.

**Chapter 2 – Literature Review**

This chapter discusses the relevant definitions and previous research of all the contexts and constructs used in this study: REB, wildlife conservation at the Penang National Park, TPB, attitude, anticipated emotion, and environmental concern. This chapter also discusses the research gap, research hypothesis, and finally the research framework.

### **Chapter 3 – Research Methodology**

This chapter begins with a discussion of the research process. It then goes on to discuss the two major paradigms of research: positivism and interpretivism. This is followed by a description of the research design, which details the current study's quantitative approach. The sampling design process is then discussed in detail, followed by an explanation of the instrument development process. It discusses the population to be sampled, the sample size, and the sampling technique and procedures. Before beginning the actual research, it is common practise to put the research instrument through a process of pilot testing and expert review in order to determine its validity and reliability.

### **Chapter 4 – Data Analysis and Results**

This chapter describes and discusses the study's data analysis and findings: the preliminary data analysis is the primary focus of the first section, where data preparation, data screening, estimation of sample size, and descriptive analysis are discussed in greater detail. The second section of the chapter is devoted to the study's primary data analysis. Data normality is explained before going into detail about the measurement and structural model using Amos SPSS 26.0.

### **Chapter 5 – Contributions, Limitations, and Future Research**

First, this chapter discusses the findings before explaining the theoretical and practical contributions of the study. This is followed by a discussion regarding the study's limitations and recommendations for future research. Finally, an overall conclusion of the study is provided.

#### **1.10 Chapter Summary**

This chapter has set out the study's context, specifically the ecotourism industry and wildlife conservation. The research problem in this study is centred on the TPB. The main objective of this research is to examine the relationship between attitude, anticipated emotion, and environmental concern as measured by TPB. Six research questions were established, with the scope of the study limited to ecotourists at the Penang National Park.

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