



UNIVERSITI PUTRA MALAYSIA

***ANTECEDENTS OF ENVIRONMENTALLY RESPONSIBLE BEHAVIOUR
IN SELECTED MARINE PARKS IN PENINSULAR MALAYSIA***

NADZIRAH BINTI MOHAMMED

FEP 2018 25



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By

NADZIRAH BINTI MOHAMMED

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

August 2018

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

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August 2018

Chairman : Associate Professor Yuhanis Abdul Aziz, PhD
Faculty : Economics and Management

Malaysia is one of the twelve megadiverse (or mega biodiversity) countries in the world and marine parks are part of the biodiversity components. The establishment of marine parks is to systematically protect and manage the marine ecosystem which can acknowledge Malaysia as a nature hub. However, tourism activities have adverse effects on the marine ecosystem. There were also negative reviews from the tourists on the landscape, services, and safety and security of the marine parks in Malaysia. Accordingly, positive environmental behaviour amongst the tourists plays a pivotal role in sustaining the success of marine parks. Addressing that, this study aimed to examine the influence of destination attractiveness, place attachment, activity involvement, and place satisfaction on environmentally responsible behaviour amongst tourists in marine parks. This study performed a questionnaire survey which involved on-site respondents in selected marine parks in Malaysia, namely Pulau Tioman, Pulau Redang, Pulau Perhentian, Pulau Payar, and Pulau Tinggi. A total of 388 completed surveys were used in the present study. Descriptive statistics were used to identify demographic profiles, travel profiles as well as descriptive frequencies and percentages for each item for each variable. Subsequently, this study utilised structural equation modelling (SEM) to examine the relationships between all the constructs with respect to the five proposed hypotheses. Conclusively, four of the proposed hypotheses (H1, H2, H4, and H5) were supported based on the obtained results of this study. However, the relationship between place attachment and place satisfaction (H3) was found to be negative in this study. Additionally, this study also found full mediation effects of place satisfaction towards the relationship between destination attractiveness and environmentally responsible behaviour. Concisely, this study conducted in-depth evaluation on the environmentally responsible behaviour amongst tourists in the marine parks. This study also took into account a comprehensive assessment on the three dimensions of destination attractiveness (core attributes, augmented attributes, and safety and security attributes) and the four dimensions of

place attachment (place dependence, place identity, place affect, and place social bonding). The findings of this study also contribute to the sustainable planning on the development of marine parks in Malaysia.



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

**FAKTOR- FAKTOR YANG MEMPENGARUHI PERILAKU
BERTANGGUNGJAWAB TERHADAP ALAM SEKITAR DI TAMAN LAUT
TERPILIH DI SEMENANJUNG MALAYSIA**

Oleh

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Malaysia adalah salah sebuah daripada dua belas negara yang mempunyai kepelbagaian bio dan taman laut adalah sebahagian daripada komponen kepelbagaian bio. Taman laut diwujudkan untuk melindungi dan mengurus ekosistem marin secara sistematik dan seterusnya mengiktiraf Malaysia sebagai pusat alam semulajadi. Walau bagaimanapun, aktiviti pelancongan telah memberi kesan negatif terhadap ekosistem marin. Terdapat juga beberapa ulasan negatif daripada para pelancong mengenai landskap, perkhidmatan dan keselamatan di Taman Laut Malaysia. Selain itu, tingkah laku positif para pelancong terhadap alam sekitar memainkan peranan penting dalam memelihara sesebuah destinasi. Sehubungan dengan itu, kajian ini bertujuan untuk mengkaji pengaruh tarikan destinasi, kesetiaan terhadap destinasi, penglibatan dalam aktiviti, dan kepuasan terhadap destinasi ke atas perilaku bertanggungjawab terhadap alam sekitar di kalangan pelancong di taman laut. Kaji selidik yang dijalankan melibatkan responden di taman laut terpilih di Malaysia iaitu Pulau Tioman, Pulau Redang, Pulau Perhentian, Pulau Payar dan Pulau Tinggi. Sebanyak 388 kaji selidik yang lengkap telah digunakan dalam kajian ini. Statistik deskriptif telah digunakan untuk mengenal pasti profil demografik, profil perjalanan serta kekerapan diskriptif dan peratusan bagi setiap item untuk setiap pembolehubah. Seterusnya, kajian ini menggunakan pemodelan persamaan struktur (SEM) untuk mengkaji hubungan antara kesemua pembolehubah berdasarkan lima hipotesis kajian yang telah dicadangkan. Keputusan kajian ini telah menunjukkan bahawa empat hipotesis kajian yang dicadangkan (H1, H2, H4, dan H5) disokong. Walau bagaimanapun, kajian ini mendapati terdapat hubungan negatif antara kesetiaan terhadap destinasi dan kepuasan terhadap destinasi (H3). Di samping itu, terdapat juga kesan hubungan pengantaraan penuh bagi kepuasan destinasi terhadap daya tarikan destinasi dan perilaku bertanggungjawab terhadap alam sekitar. Secara ringkasnya, kajian ini telah melakukan penilaian yang mendalam terhadap perilaku bertanggungjawab terhadap

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I certify that a Thesis Examination Committee has met on 28 August 2018 to conduct the final examination of Nadzirah binti Mohammed on her thesis entitled "Antecedents of Environmentally Responsible Behaviour in Selected Marine Parks in Peninsular Malaysia" in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the student be awarded the Doctor of Philosophy.

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LIST OF ABBREVIATIONS

CBD	Convention on Biological Diversity
DMPM	Department of Marine Park Malaysia
EDT	Expectation Disconfirmation Theory
EPP	Entry Point Projects
ETP	Economic Transformation Program
MMBH	Malaysia Mega Biodiversity Hub
MOTAC	Ministry of Tourism and Culture
NKEA	National Key Economic Areas
NST	News Straits Times
TRA	Theory of Reasoned Action
UNWTO	United World Tourism Organization
VMY	Visit Malaysia Year
WWF	World Wildlife Fund

CHAPTER 1

INTRODUCTION

1.1 Chapter Overview

This chapter presents an overview on the rapid development of tourism industry in Malaysia and its significance to the country's economic development. Following that, this chapter briefly describes the economic value of a marine park. This chapter also presents the problem statement, followed by the objectives of this study, research questions, and the significance of this study. Besides that, this chapter also provides the operational definition of terms (for each construct) used in this study. Lastly, this chapter presents the overall thesis organisation. In short, this chapter serves to provide a brief description on the focus of this study.

1.2 Background of Study

Malaysia has progressively diversified its economy across various industries, which incorporates the delivery of valuable services through education, information communication and technology (ICT), professional services, telecommunication, and tourism. Accordingly, the tourism industry has demonstrated stupendous economic growth. This particular industry plays a pivotal role for Malaysia to attain high-income nation status by 2020 (World Tourism Organization [WTO], 2011). Addressing that, the tourism industry is acknowledged as one of the National Key Economic Areas (NKEAs) in Malaysia, which propels the country towards enhancing the tourism products through the creation of tourism destinations, particularly ecotourism and heritage tourism. Thus, the development of tourism clusters is emphasised to leverage the existing tourism products and newfound iconic tourism products (Malaysia Plan, 2010). Besides being recognised as one of the country's income sources due to its immense significance, the tourism industry also offers employment opportunity and foreign exchange and boosts the infrastructure development. The hospitality and tourism industry has become an important economic contributor as the third largest industry that contributes to the national economy (The Star, 2017).

The development of the tourism industry is prompted at the global scale, which has contributed significant economic and social benefits. This has encouraged more places to be transformed into tourism destinations (Kwon & Vogt, 2009). Some of the tourism destinations in Malaysia, such as the cultural heritage sites of Georgetown (Pulau Pinang) and Melaka are internationally acknowledged, which offer diverse cultural and historical values (for examples, the Chinese shop-houses, colonial buildings, and monumental arts) for the tourists. These tourism destinations are recognised as UNESCO World Heritage Sites. Other listed tourism destinations in Malaysia include Gunung Mulu National Park (Sarawak) and Kinabalu Park (Sabah). Malaysia's rich diverse tourism products must be sustained as part of these tourism

destinations to attract more tourists. For instance, the architecture design should be treated accordingly and conserved to sustain the heritage site.

As previously implied, Malaysia is in the phase of diversifying and enhancing tourism products. Thus, the government has introduced numerous initiatives to promote diverse tourism destinations in boosting the country's tourism industry in various ways. With that, the government is in the direction of establishing Malaysia as a mega biodiversity hub (MMBH). The number of tourists to MMBH destinations, experience an increasing trend with 875,694 tourists in 2014 (Pemandu, 2015). With respect to this, ecotourism has proved to be one of the fastest growing industries in Malaysia, which prompts numerous tourism agencies to offer services that are related to ecotourism (ecomalaysia.org, 2014). The rich natural biodiversity in Malaysia has led to the establishment of certain protected areas, such as the national parks (as land-based destinations) and marine parks (as water-based destinations). Eventually, these protected areas become tourism destinations, specifically known as ecotourism sites.

Figure 1.1 reveals the increasing trend in the number of tourist arrivals in Malaysia as well as the number of tourists for the marine parks and national parks in Malaysia over the past five years (2012–2016). Besides that, the figure also shows that the marine parks had higher number of tourists compared to the number of tourists in the national parks, which reveals its popularity as an ecotourism site. On average, the proliferation of tourists in the marine parks contributes to the economic development, but has compromised the health of marine ecosystem through increased carbon footprint and human impacts. In relation to this, the establishment of marine parks in selected islands mainly aims to protect, conserve, and manage the significant values of the marine ecosystem, which simultaneously fosters the awareness, enthusiasm, and understanding of the public towards marine ecosystem (Department of Marine Park Malaysia [DMPM], 2012).

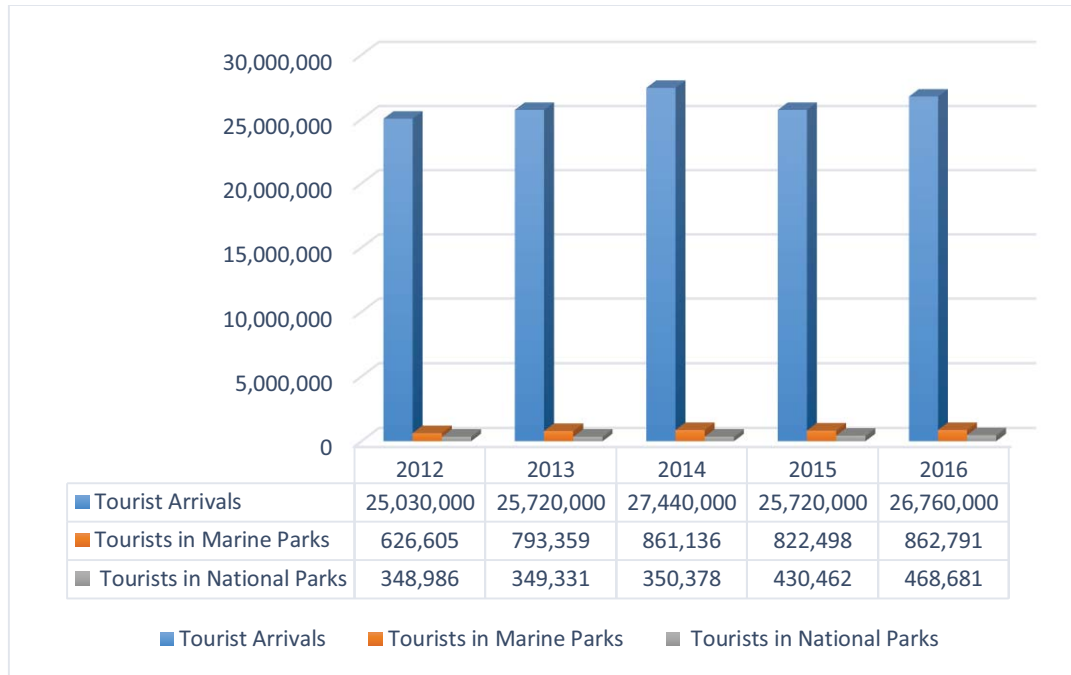


Figure 1.1 : Tourist Arrivals in Malaysia and Number of Tourists for Marine Parks and National Parks in Malaysia between 2012 and 2016

(Sources: DMPM, 2015; Department of Wildlife and National Parks of Peninsular Malaysia, 2015)

The Tun Mustapha Park (TMP) in Sabah with the magnitude of 898,762.76 hectares is recently promoted as the largest marine park in Malaysia, which introduced a new scale for Malaysia's marine park venture that boosts the socio-economic development of the state, while sustaining the marine ecosystem through ecotourism (New Straits Times [NST], 2016). The proclamation of marine park initiates the efforts of conserving and sustaining the intrinsic values of marine ecosystem. This demonstrates the concern of the government to protect these natural resources in the tourism destinations. Besides that, these marine parks are widely recognised as destinations of high economic value (Annual Report of DMPM, 2014). The economic value of these marine parks plays a significant role in enhancing the conservation and management strategies (Dixon, 1998). Table 1.1 presents the economic value of certain marine parks in Malaysia, which indicates the significance of these marine parks as ecotourism destinations that enhance economic development and the status of Malaysia as a biodiversity hub.

Table 1.1 : Total economic value of selected marine parks in Malaysia

No.	Marine Park (State)	Value (RM)
1	Pulau Payar Marine Park (Kedah)	174 million
2	Labuan Marine Park (Labuan)	39.6 million
3	Pulau Redang Marine Park (Terengganu)	334 million
4	Pulau Tioman (Pahang)	3.4 billion

(Source: Annual Report of DMPM, 2014)

However, the rapid growth of tourism has accelerated the environmental deterioration globally (Taufique & Vaithianathan, 2018), as unmanageable tourism causes intense pressures and escalating problems in terms of economy and environment (Kwon & Vogt, 2009). The usage of high-powered boats, anchoring in the coral reef habitat, island-based construction, and tourists' negative habits (e.g., marine littering and step on or touch the marine wildlife during water-based activities) adversely affect the marine ecosystem (Kosmo, 2011). It is a challenge to manage the perturbed balance between conservation and tourism activities in these marine parks (ecomalaysia, 2014).

Besides, previous empirical evidence have stated that ecotourism development contributes to the environmental conservation and could be a solution to the problems which are related with conventional mass tourism (Poudel & Nyaupane, 2016). In relation to this, the emphasis on environmentally responsible behaviour of tourists could make the ecotourism more sustainable than other types of tourism (Newsome, 2013; Walter, 2013; Poudel & Nyaupane, 2016). Ideally, through environmentally responsible behaviour and sustainable tourism, it could minimise any adverse economic, environmental, and social impacts of tourism towards the marine ecosystem (Harriot, 2002). Through the minimisation of the negative impacts, all tourism activities and society in the marine parks should be environmentally friendly with the promotion of environmentally responsible behaviours (Masud et al., 2017).

Thus, this study expected to grasp the current state of these marine parks in Malaysia. Tourists visit Malaysia to directly experience the beauty of coastal destinations and explore the exotic marine ecosystem. In order to enhance Malaysia's ecotourism, the attractiveness of these marine parks should be sustained. From this, it will help the management to enhance the image of marine parks and to know the precedence in enhancing the destinations' quality, as well have a systematic and effective approach in destinations marketing and sustainability. Apart from the attractiveness of tourism destination, tourists expect recreational opportunities and valuable experiences in the marine parks that positively influence their emotion (e.g., attachment and satisfaction), attitude, and behaviour. With the growing popularity of water-based activities in the marine parks, it is crucial to maintain a balance between conservation of marine resources and tourism activities (Salim & Mohamed, 2014). Therefore, tourists should have a sense of responsibility for the environment in the marine parks. Consequently, this study evaluated environmentally responsible behaviour amongst the tourists in the

selected marine parks, which subsequently assessed their willingness to cooperate to maintain the value of marine ecosystem. Concisely, this study examined whether the destination attractiveness affects tourists' place attachment, activity involvement, place satisfaction, and environmentally responsible behaviour in the marine park.

1.3 Problem Statement

One of the Entry Point Projects (EPPs) at the national scale is to establish Malaysia as a global biodiversity hub. As reported in the Economic Transformation Program (ETP) 2010, the expected gross national income (GNI) from the EPPs is RM 1,486.9 million by 2020. This shows that nature tourism or ecotourism plays an essential role in enhancing the country's economic development, with the emphasis on the development of tourism in Malaysia. In leveraging the existing tourism products, Malaysia is indeed blessed with diverse species of flora and fauna. Thus, it is of utmost importance to sustain the rich biodiversity for the future generations, just as the ecotourism is significant to boost the country's tourism industry.

Moreover, the former Deputy Minister of Malaysia's Natural Resources and Environment, Tan Sri Joseph Kurup has stated that the DMPM and certain state governments are in the process of gazetting certain islands as marine protected areas, which is in line with the "Aichi Biodiversity Targets" of the Convention on Biological Diversity (CBD), to increase the number of marine parks in Malaysia, from 42 to 50, by 2020 (Borneo Post Online, 2012). After all, Malaysia is one of the 12 megadiverse (or mega biodiversity) countries in the world. Concisely, the recognition of these marine parks is to ensure the conservation and sustainability of the intrinsic value for the marine ecosystem.

The uniqueness of marine parks attracts many domestic and international tourists to visit these tourism destinations to experience exotic landscape and marine ecosystem. The Cable News Network (CNN) listed Pulau Perhentian Kecil and Pulau Tioman as the world's top 50 beaches (Ministry of Tourism and Culture Malaysia [MOTAC], 2015). Besides being voted as one of the top ten must-visit destinations globally in 2014 (MOTAC, 2015), Malaysia was previously ranked as the world's most visited tourism destinations in 2013 by the World Tourism Organisation (UNWTO). Despite these high rankings, the tourism industry has made continuous efforts to enhance the value chain of tourism products and services offerings, which establishes Malaysia as the preferred tourism destination (New Straits Times, 2013). Thus, it is significant to enrich and sustain the physical products (e.g., nature and landscape) and services for the development of tourism in Malaysia.

Apart from maintaining the physical products of these tourism destinations, the safety and security issues should be considered too; the lack of safety and security may tarnish the reputation of the tourism destinations. As reported by NST (2014), there were certain illegal operators of the water-based activities with the lack of safety

protocols, which generally reflect safety and security concerns. Apart from that, there were also negative online reviews on the marine parks, which highlighted issues on the nature and services in the marine parks, such as destruction of coral reefs, inefficient transportation system, and poor food catering service and changing room facilities on a popular traveller's website by Trip Advisor (2014 & 2015).

Therefore, it is essential that the management of these tourism destinations to consider these identified issues critically, as these issues present negative implications and affect the reputation of these marine parks. Moreover, the marine parks in Malaysia encounter significant environmental degradation, lack of enforcement, and lack of awareness (Masud & Kari, 2015). The coastal constructions as well as marine pollution potentially threaten 25% of coral reefs globally and the stress in corals often causes white colouration or bleaching (Annual Report of DMPM, 2014).

In relation to this, human activities have been identified to affect the nature of marine parks and subsequently lead to the closure of the marine parks (Kosmo, 2010; Kosmo, 2011). The development of tourism activities should be performed sustainably without affecting the marine ecosystem. Considering that environmentally responsible behaviour is an essential indicator of sustainable tourism, it is crucial to identify strategies to promote this behaviour amongst tourists for the sustainability of tourism destinations (Cheng et al., 2013). Environmental issues should be taken into account in the planning and development of tourism destinations because most tourism activities, after all, depend on the availability of these natural resources (Dolnicar & Leisch, 2008).

Besides that, marine parks have become increasingly competitive and saturated; thus, a systematic marketing of tourism destination should be considered by scrutinising the factors that encourage the tourists to travel to these destinations (Van der Merwe et al., 2011). The safety concern is identified as a significant factor that affect the tourists from visiting tourism destinations, compared to other factors such as facilities, food catering service, and natural resources (Lee et al., 2010). However, Hou (2005) argued that the quality of destination should be the most significant factor that sets the tourism destination apart from one another. This suggests that each particular destination offers different speciality and uniqueness, which inspire tourists to visit and experience these diverse attractions. Basically, the attractiveness of the tourism destination is considered important to grasp the motivation of the tourists to consider a visited destination as the preferred destination (Herington et al., 2013). Despite that, studies on various dimensions of destination attractiveness in the context of marine park remain limited (Kim & Perdue, 2011; Pungetti, 2013).

Furthermore, the destination attractiveness also potentially influences tourists to visit tourism destinations. Tonge et al. (2014) examined the influence of three dimensions of place attachment (place dependence, place identity and everybody's happy) on pro-environmental behaviour, which revealed that only place identity has significant influence on pro-environmental behaviour. Meanwhile, another study assessed four

dimensions of place attachment instead, namely, place dependence, place identity, place affect, and place social bonding, in the context of national park, which revealed contradictory findings—that the place identity was found insignificant when all four dimensions were simultaneously analysed (Ramkissoon et al., 2013a).

Meanwhile, place identity and place social bonding were found correlated and specified as a single factor (Lee et al., 2012). The inconsistencies in the obtained results of these previous studies address the need for the current study to explore the dimensions of place attachment. Moreover, studies on the place attachment in the context of nature-based setting (Ramkissoon et al., 2012), such as the marine parks, remain limited (Tonge et al., 2014). Consequently, this study examined place attachment using four dimensions, given that various dimensions for the attachment construct are highly recommended (Scannell & Gifford, 2010b; Ramkissoon et al., 2013a). Besides that, it was recommended to explore destination attractiveness on the four dimensions of place attachment in order to assess its influence on the environmental behaviour (Ramkissoon et al., 2012). Meanwhile, positive perception on the destination attractiveness potentially develops into higher attachment and involvement (Hou et al., 2005; Prayag & Ryan, 2011). Therefore, it is essential to assess the influence of destination attractiveness on place attachment and activity involvement of tourists in the marine park, as well.

Adding to that, it was also suggested that an integrated approach of place attachment in understanding the attitude and behaviour is required (Prayag & Ryan, 2011) due to the significance of human-related factor in the environmental context (Halpenny, 2010; Ramkissoon et al., 2012). In line with this, the place attachment and the activity involvement of tourists have gained growing interest in studies on tourism, but the findings remained inconclusive—which propel the significance of assessing the tourists' activity involvement (Prayag & Ryan, 2011) and the need to further strengthen the relationship of place attachment, place satisfaction, and environmental behaviour (Ramkissoon et al., 2013b). Therefore, further examination of place attachment and activity involvement on place satisfaction will be made.

Besides that, the destination attractiveness were said to be associated to the tourists' satisfaction that is linked to predict tourists' commitment to the environment in the visited tourism destination (Formica & Uysal, 2006; Devesa et al., 2010; Davis et al., 2011). Studies claimed that when tourists attracted with the quality of a destination (Albayrak & Caber, 2012), their satisfaction towards the destination will arouse and increased their concern towards the environment (Bentz et al, 2016). It can be suggested that destination attractiveness, place satisfaction, and environmentally responsible behaviour have interrelationships that should be investigated further. Hence, these relationships will be examined in current study as there are limited evidences that demonstrate satisfaction as the mediator in the relationship between destination attractiveness and environmentally responsible behaviour within the context of marine setting.

The individual behaviour also plays an important role to protect and conserve these natural resources in the efforts of maintaining the sustainability of these tourism destinations. With that, the management of marine parks may identify salient factors that influence environmentally responsible behaviour and improve the quality of their management. With that, this study applied the Theory of Reasoned Action (TRA) as an underlying behavioural theory to assess the relationship between the place satisfaction and the environmentally responsible behaviour. Various studies demonstrated the significance of attitude and intention in this behavioural model to predict behaviour, which reaffirms the usefulness of TRA in explaining environmentally responsible behaviour (Kim et al., 2011; Chiu et al., 2014). Thus, with the adoption of TRA, this study determined whether place satisfaction (denoted as attitude) affects environmentally responsible behaviour (denoted as intention).

Apart from TRA, Lee et al. (2012) stated that the Expectation Disconfirmation Theory (EDT) is widely accepted to explain satisfaction in the tourism context. Accordingly, satisfaction is assessed based on the evaluation of the magnitude of disconfirmation through the conventional paradigm of EDT. However, satisfaction can also be assessed based on the evaluation of tourists' actual experiences towards a certain product (Churchill & Surprenant, 1982; Yuksel & Yuksel, 2001). Thus, this study considered EDT to assess whether destination attractiveness (core attributes, augmented attributes, and safety and security attributes) leads to place satisfaction. In brief, this study was initiated to explore destination attractiveness, place attachment, activity involvement, place satisfaction, and environmentally responsible behaviour amongst tourists in the selected marine parks in Malaysia.

1.4 Research Objectives

In view of the above, this study generally examined the influence of destination attractiveness on place attachment, activity involvement, place satisfaction, and environmentally responsible behaviour. Several specific objectives were formulated to guide the overall study, as presented in the following:

- 1) To determine the influence of destination attractiveness components towards place attachment components and activity involvement amongst tourists in marine parks.
- 2) To determine the influence of place attachment components and activity involvement towards place satisfaction amongst tourists in marine parks.
- 3) To determine the mediating effects of place satisfaction towards the relationship between destination attractiveness components and environmentally responsible behaviour amongst tourists in marine parks.

1.5 Research Questions

With respect to each specific objective, this study addressed the following research questions:

- 1) How does destination attractiveness components influence place attachment components and activity involvement amongst tourists in marine parks?
- 2) How does place attachment components and activity involvement influence place satisfaction amongst tourists in marine parks?
- 3) Does place satisfaction mediate the relationship between destination attractiveness components and environmentally responsible behaviour amongst tourists in marine parks?

1.6 Significance of Study

Fundamentally, this study aimed to make original contributions to the existing body of knowledge by examining various dimensions of destination attractiveness as the key antecedents in influencing place attachment, activity involvement, place satisfaction, and subsequently environmentally responsible behaviour of tourists in the marine parks. These relationships were examined from the viewpoints of tourists in marine parks. Thus, the findings of this study are significant to the existing literature on destination marketing and for the efforts of sustaining the tourism destinations with respect to the current demands and behaviour of tourists. The following sub-sections present the theoretical significance and the practical significance of this study.

1.6.1 Theoretical significance

The destination attractiveness varies across tourism destination in terms of characteristics, environment, services, and uniqueness. The identification of physical elements for a specific tourism destination is essentially pivotal as these attributes affect the choice of tourists in selecting their destination. At this point, there are limited studies on destination attractiveness of marine parks, as most studies focused on destination attractiveness of ecotourism sites based on the core attributes and augmented attributes only. Firstly, this study attempted to extend the behavioural model postulated by Cheng et al. (2013) with the addition of safety and security attributes in assessing the destination attractiveness of marine parks. In short, this study integrated both safety and security attributes as well as the core attributes (physical elements) and augmented attributes (services and facilities) to reflect the destination attractiveness of marine parks. With that, this study provided comprehensive understanding on how destination attractiveness of marine parks in terms of nature and environment, services and facilities, and safety and security affect the attitude and behaviour of tourists. Specifically, this study strengthened the evaluation of destination attractiveness in tourism destinations, especially for marine parks.

Besides that, this study concurrently evaluated four dimensions of place attachment, namely (1) place dependence, (2) place identity, (3) place affect, and (4) place social bonding. The place attachment was previously evaluated in terms of place dependence and place identity only, which neglected the other two dimensions in the context of tourism. This study considered the significance of evaluating place attachment from different facets in order to grasp the attachment of tourists to tourism destinations. Similarly, this study aimed to extend the behavioural model postulated by Cheng et al. (2013) by evaluating the four dimensions of place attachment and their effects to the attachment of tourists towards the marine parks.

Additionally, this study examined the relationship between destination attractiveness and both place attachment and activity involvement, which contributed to the existing literature concerning these constructs. Furthermore, the findings of this study provided insights on the significance of each dimension of destination attractiveness in influencing the dimensions of place attachment as well as activity involvement. Following that, this study also validated the relationship between place attachment, activity involvement, and place satisfaction. Apart from that, both TRA and EDT were adopted as the underlying behavioural theories for the conceptual framework of this study, which presented comprehensive evaluation of these theories in the context of marine setting.

Lastly, this study also aimed to contribute to the existing literature by examining the relationship of destination attractiveness, place satisfaction, and environmentally responsible behaviour, as there are limited studies that concurrently assessed these constructs in a single study. The findings of this study revealed the significance of each dimension of destination attractiveness in influencing place satisfaction and how these dimensions influence environmentally responsible behaviour. In short, this study significantly extended the existing body of knowledge on the relationship of destination attractiveness, place satisfaction, and environmentally responsible behaviour amongst tourists in marine parks.

1.6.2 Practical significance

This study also aimed to provide empirical evidences through the application of the conceptual model and to contribute to the existing body of knowledge on the destination attractiveness and its influence towards the tourists' attitude and intention. Based on the tourists' opinions and perspective, the findings of this study empirically contributed to the sustainable planning and development of marine parks in Malaysia. Besides that, this study also assisted in identifying and evaluating the present destination attractiveness of marine parks that drive the tourists' motivation to visit, which subsequently leads to their favourable attitude and behaviour.

With that, the findings of this study provided essential insights on developing action plans (e.g., campaigns) for related stakeholders to draw the tourists' interest and participation in the tourism activities provided at the destination with environmental considerations. Specifically, the findings of this study served as guidance in drawing the necessary action plans for the enhancement of marine parks as well as the environmental plans for the sustainability of these tourism destinations according to the current viewpoints and intention of the tourists in the environmental context. In details, Table 1.2 presents summary of research gaps, research objectives, and significance of this study.



Table 1.2 : Summary of research gaps, research objectives, and significance of study

Gap of Study	Objective of Study	Significance of Study
<p>1) The understanding of marine attributes is limited (Kim & Perdue, 2011; Pungetti, 2013).</p> <p>2) Researcher proposed to examine destination attractiveness on four dimensions of place attachment (Ramkissoon et al., 2012).</p>	<p>To determine the influence of destination attractiveness components towards place attachment components and activity involvement amongst tourists in marine parks.</p>	<p>This study extended the existing literature on destination attractiveness, place attachment, and activity involvement with limited studies that simultaneously measured three dimensions of destination attractiveness, four dimensions of place attachment, and activity involvement. The safety and security attributes were added as there have been related issues in the tourism destinations in Malaysia.</p>
<p>1) More integrated approach of place attachment in grasping attitude and behaviour is required (Prayag & Ryan, 2011).</p> <p>2) Findings on the involvement of tourists vary (Prayag & Ryan, 2011).</p> <p>3) Adding other variables to improve the predictive power of relationship between place attachment and satisfaction could be conducted in future research (Ramkissoon et al., 2013b).</p>	<p>To determine the influence of place attachment components and activity involvement towards place satisfaction amongst tourists in marine parks.</p>	<p>This study contributed to the existing literature on whether place attachment and activity involvement affect place satisfaction.</p>

Gap of Study	Objective of Study	Significance of Study
<p>1) The identification of attributes that motivate the tourists to visit the tourism destinations would determine their place satisfaction and allow the management to maximize the potential of destination attractiveness (Formica & Uysal, 2006; Devesa et al., 2010).</p> <p>2) Studies on the relationship between the perception of tourists on the destination and their environmentally responsible behaviour are limited (Chiu et al., 2014).</p> <p>3) Inconsistency in the findings to prove whether satisfaction influences environmentally responsible behaviour in the tourism destinations.</p> <p>4) Limited evidences on whether place satisfaction mediates the relationship between destination attractiveness and environmentally responsible behaviour of tourists in marine parks.</p>	<p>To determine the mediating effects of place satisfaction towards the relationship between destination attractiveness and environmentally responsible behaviour amongst tourists in marine parks.</p>	<p>This study identified the significant dimensions of destination attractiveness that influence the place satisfaction amongst tourists, which lead to environmentally responsible behaviour of tourists in the marine parks. Thus, the findings of this study would assist the related stakeholders, particularly the authorities, to enhance the image of marine parks.</p>

1.7 Scope of Study

Using the quantitative approach, this study distributed questionnaire in the selected marine parks in Peninsular Malaysia, namely (1) Pulau Tioman (Pahang), (2) Pulau Redang (Terengganu), (3) Pulau Perhentian (Terengganu), (4) Pulau Payar (Kedah), and (5) Pulau Tinggi (Johor). The selection of these marine parks for this study was based on the availability of island-based accommodations (e.g., hostels or resorts) that are adjacent to the marine parks, high number of tourist arrivals, and major marine park visited by tourists. Meanwhile, this study considered both domestic and international tourists in the selected marine parks as the respondents. Thus, the population for this study was based on the number of domestic and international tourist arrivals in 2014 (301,515) and 2015 (585,665). This study distributed 400 questionnaire in the selected marine parks between July and October 2016.

1.8 Operational Definition of Key Terms

The operational definitions of key terms (for each construct) are presented in the following sub-sections.

1.8.1 Activity involvement

The term “activity involvement” is widely used in most studies to refer to the degree of one’s engagement in a particular activity (Lee, 2011).

1.8.2 Destination attractiveness

The term “destination attractiveness” refers to a sum of perceived capability of a destination to deliver satisfaction and benefits to the tourists (Hu & Ritchie, 1993). The dimensions of destination attractiveness in this study included core attributes, augmented attributes, and safety and security attributes. Core attributes denote the physical elements or unique natural of a destination (Cheng et al., 2013). Meanwhile, augmented attributes refer to a functional element that affect the evaluation of visitors on the core attributes (Hou et al., 2005). Safety and security attributes refer to the tourists’ perception of risk for injuries, illness, or deaths (Baral et al., 2012).

1.8.3 Environmentally responsible behaviour

Stern (2000) defined environmentally responsible behaviour as public environmental activism as well as the non-activist behaviour in the public sphere environmentalism and private sphere environmentalism. This study defined environmentally responsible behaviour (ERB) as tourists who attempt to reduce environmental impacts, contribute to the environmental preservation and/or conservation effort, and do not disturb the

ecosystem and environment of the visited destination during their tourism activities (Lee et al., 2013).

1.8.4 Place attachment

Previous studies examined two dimensions of place attachment: (1) place dependence and (2) place identity. However, this study examined four dimensions of place attachment, namely (1) place dependence, (2) place identity, (3) place affect, and (4) place social bonding. The definition of each dimension is based on several studies on tourism. Place dependence is a bond that one forms with the physical characteristics of a place (Ramkissoon et al., 2012). Secondly, place identity refers to a profound connection between one's personal identity and a place (Prohansky, 1978). The place affect denotes the emotional bond that one shares with the settings in their framework (Ramkissoon et al., 2012). Lastly, place social bonding is defined as a mutually constitutive relationship between place and social bonding (Wiles, 2005).

1.8.5 Place satisfaction

The place satisfaction is defined as “a collection of tourists’ attitude about specific domains in the vacationing experience” (Pizam et al., 1978, p. 317), which considers the overall satisfaction of the tourists in the tourism destinations.

1.9 Thesis Organisation

The thesis consists of seven chapters, which are organised as follows:

Chapter 1 discussed the background of this study, which provided the overview of the study and explains the significance of marine parks. This chapter also scrutinised the related issues in the tourism industry, particularly the marine parks, and addressed certain gaps concerning the selected constructs. Meanwhile, this study also presented the objectives, corresponding research questions, as well as the significance of this study. Apart from that, the scope of this study and the operational definition of key terms were also discussed in this chapter.

Chapter 2 reviews the overall tourism industry, tourism products (nature tourism and ecotourism), marine parks (the tourist arrivals in marine parks, the locations of marine parks, and the issues in the marine parks) in Malaysia as well as other previous studies on ecotourism. This chapter also discusses the sustainability of marine parks.

Chapter 3 explores the consumer behaviour as well as the destination competitiveness and destination sustainability. This chapter also reviews destination attractiveness, place attachment, activity involvement, place satisfaction, and environmentally responsible behaviour. At the end of this chapter, the gaps concerning these constructs are discussed in detail.

Chapter 4 presents the development of conceptual framework, the proposed conceptual model, and the development of hypotheses. The conceptual framework of this study was underpinned by several models, which included (1) Expectation Disconfirmation Theory (EDT), (2) Theory of Reasoned Action (TRA), (3) the environmentally responsible behavioural model, and (4) place attachment model. This study developed five hypotheses in line with the proposed conceptual framework.

Chapter 5 explains the research paradigm and the methodology of this study. The positivism paradigm was selected for this study. The description on the methodology of this study specifically covers the sampling design, questionnaire development, pre-test, pilot test, the measurement of each construct, data collection, data analysis, and hypothesis testing.

Chapter 6 describes the response rate, preliminary analysis, multivariate assumption analysis, the results of descriptive statistics, and the structural equation modelling (SEM) using AMOS. In order to run SEM, the results of measurement model and structural model, confirmatory factor analysis, and the reliability and validity were assessed in this study.

Chapter 7 presents the discussion of findings as well as the contributions in terms of theoretical and managerial aspects (for the practitioners and policymakers). Lastly, the limitations of this study and the recommendations for future research are discussed.

1.10 Chapter Summary

This chapter provided solid foundation for the current study. The establishment of marine parks is a strategy to sustain the marine ecosystem, while boosting the economic development through ecotourism. However, tourism activities have contributed negative impacts towards the marine ecosystem, including the destruction of the natural attraction of marine ecosystem. It is necessary to grasp the current state of marine parks as well as the attitude and the behaviour of tourists in the marine parks. The main objective of this study was to examine the influence of destination attractiveness, place attachment, activity involvement, and place satisfaction towards environmentally responsible behaviour amongst tourists in marine parks. The subsequent chapter presents an overview of the tourism industry in Malaysia, particularly the marine parks.

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