THE EFFECT OF ATTITUDE TOWARD GREEN, SUBJETIVE NORMS, PERCEIVED BEHAVIORAL CONTROL, AND PERCEIVED VALUE ON BEHAVIORAL INTENTION AND WILLINGNESS TO PAY MORE FOR THAI GREEN HOTELS

NAPAN SINTHUSIRI

A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY PROGRAM IN BUSINESS ADMINISTRATION
FACULTY OF BUSINESS ADMINISTRATION
RAJAMANGALA UNIVERSITY OF TECHNOLOGY THANYABURI
ACADEMIC YEAR 2016

THE EFFECT OF ATTITUDE TOWARD GREEN, SUBJETIVE NORMS, PERCEIVED BEHAVIORAL CONTROL, AND PERCEIVED VALUE ON BEHAVIORAL INTENTION AND WILLINGNESS TO PAY MORE FOR THAI GREEN HOTELS

NAPAN SINTHUSIRI

A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY PROGRAM IN BUSINESS ADMINISTRATION
FACULTY OF BUSINESS ADMINISTRATION
RAJAMANGALA UNIVERSITY OF TECHNOLOGY THANYABURI
ACADEMIC YEAR 2016

Dissertation Title	The Effect of Attitude toward Green, Subjective Norms, Perceived Behavioral Control, and Perceived Value on Behavioral Intention and Willingness to Pay More for Thai Green Hotels
Name – Surname	Miss Napan Sinthusiri
Program	Business Administration
Dissertation Advisor	Mr. Tanompong Panich, D.B.A.
Dissertation Co-advisor	Associate Professor Nuttapol Assarut, Ph.D.
Academic Year	2016

DISSERTATION COMMITTEE

……..…..……. Chairman
(Associate Professor Preeyanuch Apibunyopas, Ph.D.)

…….……. Committee
(Assistant Professor Sungworn Ngudgratoke, Ph.D.)

…….……. Committee
(Miss Umawasee Sriboonlue, D.B.A.)

…….……. Committee
(Associate Professor Nuttapol Assarut, Ph.D.)

…….……. Committee
(Mr. Tanompong Panich, D.B.A.)

Approved by the Faculty of Business Administration Rajamangala University of Technology Thanyaburi in Partial Fulfillment of the Requirments for the Degree of Doctor of Philosophy

…….…… Dean of Faculty of Business Administration
(Assistant Professor Nartraphee Chaimongkol, Ph.D.)
June 28, 2017

Dissertation Title	The Effect of Attitude toward Green, Subjective Norms, Perceived Behavioral Control, and Perceived Value on Behavioral Intention and Willingness to Pay More for Thai Green Hotels
Name-Surname	Miss Napan Sinthusiri
Program	Business Administration
Dissertation Advisor	Mr. Tanompong Panich, D.B.A.
Dissertation Co-advisor	Associate Professor Nattapol Assarut, Ph.D.
Academic Year	2016

ABSTRACT

This paper aimed to examine Thai consumers' attitude toward green hotels and the effect of these attitudes on their behavioral intention including the visiting intentions, the word of mouth intention, and the willingness to pay more.

This study used the mixed methodologies; quantitative and qualitative methodologies. Target respondents were Thai customers aged 18 or over having stayed in green hotels in Thailand. A questionnaire was collected from 385 customers and interviewed from 5 germ hotel owners. The quantitative data were analyzed by using Structured Equation Model (SEM) while the data from the interview were analyzed by using Qualitative Content Analysis (QCA).

The results from the questionnaire showed that green attitudes, subjective norms, and perceived value had a positive effect on behavioral intention towards green hotels. Similarly, subjective norms did have a positive effect on willingness to pay more for green hotels. However, green attitudes and perceived value did not have any significant effect on willingness to pay more for green hotels. Surprisingly, perceived behavioral control had a significantly negative effect on both behavioral intention towards green hotels and willingness to pay more for green hotels. Moreover, the results from the interview supported the quantitative findings. Although consumers were willing to stay in green hotels, environmental impact was not a major factor in their choice of hotels. Hence, they were not willing to pay more for green hotels.

Keywords: attitude toward green, green hotels, behavioral intention, willingness to pay more

Acknowledgements

Firstly, I would like to express my appreciation and gratefulness to my very-kind advisor Dr.Tanompong Panich who really supported and gave me valuable inspiration to proceed with this dissertation during hard times till its completion. Also, I would like to speak many thanks to my co-advisor Associate Professor Dr. Nuttapol Assarut, who also share me valuable time in commenting, supporting, suggesting and finding any way to finishing my research. In addition, I am extremely grateful for comments and suggestions in statistical analyses from Assistant Professor Dr.Sungworn Ngudgratoke. Next, I would like to express many thanks to Associate Professor Dr. Preeyanuch Apibunyopas and Dr. Umawasee Sriboonlue for sharing their worthiest time in being my research study committee. I wish to express my appreciation to Assistant Professor Dr. Wanchai Prasertsri, Assistant Professor Dr.Supa Tongkong and Assistant Professor Dr.Napaporn Nilapornkul for valuable suggestions and encouragement. Besides, I would like to thank the staff members from Faculty of Business Administration, Rajamangala University of Technology Thanyaburi.

I was very fortunate to have many help from colleague at the Faculty of Business Administration at Rajamangala University of Technology Isan at Nakornratchasima. I wish to express my appreciation to Associate Professor Dr.Suwattana Tungsawat, Dr.Patima Tanimkarn and Mrs.Dusadee T. Boonmasungsongfor their suggestions and assistance.

I gratefully acknowledge to my parents and my friends for all their support throughout the period of this research.

Finally, I would like to thank for everyone who helped me to complete this dissertation.

Napan Sinthusiri

Table of Contents

Table of Contents (Continued)

List of Tables

List of Figures

CHAPTER 1
INTRODUCTION

This research addresses the issue of consumer response to green hotels in Thailand. The goal of this chapter is to establish the background of the research and to explain why it is being conducted. This information introduces the reader to the study topic and previews what will come in later chapters of the research.

The first two sections of the research, including the research background and statement of the research problem set out the area of research concern and explain why this is of significance. Next, the research aims and objectives are established and the scope and delimitations of the study are presented. A brief reflection on the potential significance of the research for academic study and practice follows. The arrangement of the study is then discussed. Finally, definitions of critical terms for the study are provided. This information is expanded in the next chapter (Literature Review).

1.1 Research Background

1.1.1 Tourism in Thailand

Tourism is a major economic sector in Thailand. According to the most recent figures from the World Travel and Tourism Council: WTTC, the tourism sector directly contributed THB 1,247.3 billion to Thailand's GDP in 2015, and is anticipated to increase by 4.3% by year-end 2016. The long-term forecast indicates that by 2026, the tourism sector could contribute up to THB2842.9 billion (WTTC, 2016). This represents a 6.7% compound annual growth rate (CAGR). In terms of direct GDP contribution, this means the tourism industry is slated to grow from 9.3% in 2015 to 14% by 2026, making it one of the largest sectors of the Thai economy (WTTC, 2016). Much of this growth is driven by international tourism. Thailand is one of the world's biggest tourism destinations, attracting 24.81 million tourists in 2014 (World Bank, 2016). Thailand continues to be attractive despite multiple natural disasters and political unrest over the past few years, and the industry is now thought to have fully recovered from the 2014 military coup (Oxford Business Group, 2016). Unsurprisingly, much of the research on tourism in Thailand is focused on this influx of international arrivals.

Much less is known about the domestic tourism market in Thailand, even though it is known to account for 25.1% of tourism spending, and is estimated at a 3.3% growth rate to 2026 (WTTC, 2016). However, because the Thai government no longer collects domestic tourism statistics, the number of domestic tourism trips is not known.

1.1.2 Sustainable tourism and the green hotel

This research is concerned with a specific aspect of sustainable tourism: the green hotel. Sustainable tourism has been growing both in consumer popularity and as a government policy target since the 1992 Rio Earth Summit Conference (Yusof & Jamaludin, 2013). Sustainable tourism can be briefly defined as development of a tourism industry that provides for both present and long-term economic growth while also protecting the needs of society and the environment (Weaver, 2006). While some sustainable tourism development has focused on building alternative, low-impact tourism forms such as eco-tourism, voluntourism, and agritourism, other sustainable tourism has been directed toward improving the sustainability of mass tourism (Weaver, 2006). This research focuses on one innovation of sustainable mass tourism: the green hotel.

Green hotels (also called eco-hotels and sustainable hotels) may be defined minimally as "a lodging establishment that has made a commitment to various ecologically sound practices such as saving water, saving energy, and reducing solid waste (Manaktola & Jauhari, 2007, p. 365)." However, many green hotels have a much greater commitment to environmental and social sustainability expressed in their operational practices, guest services and offerings, and even their building materials (Weaver, 2006). For example, green hotels may be constructed and furnished with local, sustainable and recycled materials, use systems that limit the energy used in environmental control (such as natural ventilation rather than air conditioning), and generate their own electricity, typically using solar PV panels (Chen & Tung, 2014; Manaktola & Jauhari, 2007; Yusof & Jamaludin, 2013). The green hotel may also modify the guest experience in order to reduce waste, for example by introducing refillable toiletry dispensers or introducing towel and linen reuse programs (Darnall, 2008; Han & Chan, 2013; Millar & Baloglu, 2008). Green hotels will also often use local, handmade and organic products in their guest services, provide organic or eco-

food and cater to specialty diets, and offer environmentally friendly activities (Manaktola & Jauhari, 2007). Finally, hotels may pursue local and environmental building and operation certifications such as LEED, Green Globe, or Energy Star, which provide external auditing and verification for consumers that the green hotel is operating to certain standards (Han & Chan, 2013).

Many business writers have argued that transformation into a green hotel offers not just environmental benefits, but also business benefits for the hotel. The fundamental argument is that the green hotel offers a competitive advantage for hotels, particularly in difficult operating environments. For example, a study of interviews with hotel managers in Taiwan demonstrated that green hotel practices could provide improved competitiveness in difficult markets by creating differentiation from its competitors (Chen & Chen, 2012). Similarly, a study from Canada pointed out that green hotels offered both competitive marketing advantages and cost saving advantages, because of the emphasis on energy and water saving and reduction in waste disposal costs as well as other operational costs (Graci & Dodds, 2008). Thus, there are some good reasons why hotels adopt green practices. However, there are also some disadvantages for green hotels. For example, hotels may be perceived as 'greenwashing', or using environmental claims in order to justify cost-saving practices that negatively affect the visitor experience (Gao & Mattila, 2014). There is also a known gap in green attitudes and consumer responses to green hotels, which means that even consumers with positive perceptions of green hotels may not choose to stay in one, perhaps because of information barriers, greenwashing perceptions, or price sensitivity (Berezan, Raab, Yoo, & Love, 2013).

1.1.3 Green hotels in Thailand

This study is particularly concerned with green hotels in Thailand. The Tourism Authority of Thailand (TAT) announced a sustainable tourism policy in 2010 called the 7 Greens, in which one element was promotion of green hotels (TAT, 2010). This plan promoted the Green Leaf Certification, an ASEAN-wide classification system designed to communicate about the hotel's green practices. Hotels could earn between one and five green leaves depending on their extent of green operations and practices; for example, a hotel with a basic linen reuse program and water-saving faucets may earn

one green leaf, while a purpose-built green hotel utilizing energy savings and generation and employing other methods of reducing environmental impact may earn five leaves (TAT, 2010). By 2010, 18 hotels and resorts had achieved Green Leaf certification (TAT, 2010). Unfortunately, there are no updated statistics available, making it difficult to know how many hotels and resorts have achieved certification to date. Furthermore, many hotels have implemented green practices, especially energy and water-saving practices, without seeking formal certification (Muangasame & McKercher, 2015).

1.2 Statement of Problem

1.2.1 Consumer perspectives on green hotels in Thailand

One of the problems of the research is that there is little evidence about consumer perspectives on or responses to green hotels in Thailand, particularly for Thai consumers. One recent study has assessed the outcome of the 7 Greens sustainable tourism policy (Muangasame & McKercher, 2015). This program did include some Thai consumers in its tourist survey, which was conducted along with interviews with other key stakeholder groups to understand the effectiveness of the program. The authors found that consumers in general did not feel that hotels were doing enough to promote green values and environmental practices, even in the case of Green Leaf certified hotels (Muangasame & McKercher, 2015). In particular, focus on basic programs like linen reuse an energy-saving programs, which consumers are aware are also (and perhaps predominantly) cost-saving measures, were viewed as not enough of an environmental benefit to make up for the inconvenience and extra cost of green hotels (Muangasame & McKercher, 2015). There have also been concerns found in the literature about so-called greenwashing, or presentation as an environmental benefit a hotel practice or procedure that is actually conducted for the hotel's benefit (Henderson, 2007). For example, some hotels in Phuket Thailand, which engaged in insincere corporate social responsibility (CSR) efforts after the 2004 tsunami, were viewed as greenwashing, which created reputational damage (Henderson, 2007). Going back even further, greenwashing concerns have been raised regarding the comingling and spatial closeness of ecotourism and mass tourism in areas like Phuket (Kontogeorgopoulos, 2004). Thus, there is a history of conflict and negative consumer perceptions of green or

sustainable tourism activities in Thailand. However, there have not been any recent studies that have addressed what draws tourists to green hotels or what factors influence consumer responses like visit intentions, willingness to pay more, or word of mouth intention.

1.2.2 Research and practice gaps

Green hotels have a number of inconveniences and disadvantages compared to conventional equivalents, such as higher price, lack of information, and potentially lower provision of services and facilities (Han & Chan, 2013). For example, green hotels may have higher operating costs, which are passed on in the form of higher fees. Furthermore, green hotels may not have amenities hotel guests are used to, like air conditioning or single-use toiletries (Han & Chan, 2013). While it is not impossible that hotel guests will accept these differences from conventional hotel offerings, it does require a certain attitude of environmental awareness and willingness to sacrifice some amount of utilitarian and hedonic value of the hotel in exchange for reduction in environmental impact of tourism (Han & Chan, 2013; Oreg & Katz-Gerro, 2006). In fact, there is a problem observed in the literature, which is known as the attitude-behavior gap, that relates to the consumer's unwillingness to sacrifice the comfort of a hotel stay even if they do have an environmental awareness about the costs of their stay (Antimova, Nawijn, & Peeters, 2012; Budeanu, 2007; Ha-Brookshire & Norum, 2011). In fact, consumers are less likely to penalize hotels through their behavior such as boycotts for failure to meet green standards than most other forms of perceived infraction, even severe problems such as child labor (Tilikidou, Delistavrou, & Sapountzis, 2014). This suggests that there may be strong consumer resistance to green hotels, and furthermore that attitudes influence the consumer's response to the hotel. However, there is relatively little research on green hotels, with much of the evidence coming from a single research group associated with Taiwanese researcher Heesup Han and associates. While this is certainly not bad, it does not yield a cross-cultural perspective on green hotels. Furthermore, there has been little research into Thai domestic consumer perspectives on tourism in Thailand, which given that Thai domestic tourism accounts for about a quarter of total tourism in the market (WTTC,

2016) is a significant underrepresentation. Thus, there are both theoretical and practical gaps in the research on green hotel consumer responses that this study can fill.

1.2.3 The problem of the research

The problem of this research is how to describe and explain Thai consumer response to green hotels. The following sections explain the specific aims and objectives of the research and its scope limitations.

▶Does green attitude have a positive influence on consumer behavioral intentions and willingness to pay more for green hotels?

▶ Do subjective norms have a positive influence on consumer behavioral intentions and willingness to pay more for green hotels?

▶Does perceived behavioral control have a positive influence on behavioral intentions and willingness to pay more for green hotels?

▶ Does perceived value have a positive influence on behavioral intentions and willingness to pay more for green hotels?

1.3 Research Aims and Objectives

The aim of this research is to examine Thai consumer attitudes toward green hotels and the effect of these attitudes on their consumer behavioral intention, including visit intentions (VI), word of mouth intention (WOMI), and willingness to pay more (WPM). The preliminary research established a theoretical framework based on the Theory of Planned Behavior, initially proposed by Ajzen (1991), and extended based on findings regarding perceived hedonic and utilitarian value (hotel values). The aims and objectives are oriented toward describing and explaining characteristics of Thai consumers with hotel experience.

Based on this aim and the research problem, there have been several objectives established. These objectives will be accomplished through a combination of theoretical review (Literature Review) and primary research (consumer survey). The objectives include:

1. To examine Thai consumer perceptions and attitudes toward green hotels;
2. To examine existing consumer behaviors toward green hotels; and

3. To determine the impact of an extended Theory of Planned Behavior (TPB) (including green attitudes, subjective norms, perceived behavioral control, and hotel perceived value) on behavioral intention (VI, WOMI), and willingness to pay more (WPM); and

4. To provide recommendations based on the primary study and literature review to improve green hotel services in Thailand.

1.4 Scope of the Research

The research is based on a theoretical framework of a modified TPB, which was first proposed by Ajzen (1991). The modification consists of inclusion of a hotel perceived value (PV) variable, which includes hedonic and utilitarian perceived value. The modified framework proposes that green attitudes, subjective norms, perceived behavioral control and PV influence consumer response.

This research is conducted at the consumer level. This study is a quantitative consumer survey of Thai consumers who have stayed in hotels in Thailand. This is not necessarily limited to green hotels, but includes all consumers with hotel experience. Additional sampling frames include age (18+) for ethical and socioeconomic reasons.

The research is conducted as a cross-sectional study. Data was collected at one time between November, 2016 and January, 2017. The data was collected as an in-person questionnaire, with respondents' selected using convenience sampling in popular hotel areas at all socioeconomic levels in and around Green hotel. Analysis was conducted in SEM model. Results are presented and discussed with the literature review for interpretation.

1.5 Significance of the Research

There are two types of research benefits that could result from this study. One of these benefits is academic. The TPB is a longstanding model that has been used in many hospitality and tourism studies, including several that have specifically addressed green hotel behavior (e.g. Han & Kim, 2010; Han, 2015). Other authors have also extended the model in various ways in order to accommodate the unusual situation of green hotels (Chan & Tung, 2014). At the same time, the TPB has been increasingly

called into question as a useful model for decision making, especially in some contexts where there is not much evidence that it is effective (such as private decisions) (Sniehotta, Presseau, & Araújo-Soares, 2014). Thus, this research has an important theoretical role to play, by considering the effects of extending the TPB to include context-specific factors. This research can be considered in context both as a further contribution to the literature on green hotels and the body of evidence for application of TPB in the tourism industry. In both cases, the research findings will provide evidence for future researchers in this area. The research also has a potential practical implication. Thailand is one of the world's top tourism economies, and domestic tourism accounts for about 30% of the sector's GDP contribution (World Travel and Tourism Council, 2015). However, domestic tourism and domestic tourist preferences are poorly understood in Thailand, with most government efforts and even academic research focusing on international tourists. This research will provide Thai hoteliers with more information about their domestic hotel guests, such as their perceptions of green hotels and attitudes toward them, and the influence these attitudes have on their consumer responses. This information could be used to refine green hotel features and services to improve Thai hotel guest response.

1.6 Research Outline

In this chapter, the topic of the research has been presented and the reasons for conducting it are explained in detail. In the Literature Review (Chapter 2), theories, frameworks, and related empirical framework are presented. This chapter culminates in the construction of an extended TPB model that supports the research, including perceived value as a factor that influences consumer response. The Methodology (Chapter 3) explains and critiques the research methods of the study. In this chapter, it is explained consumer response by mix method (quantitative and qualitative). This chapter also explains the methods choices made and reflects on the limitations and ethical issues of the study. The culmination of the study – the primary research findings – is presented in the Findings and Discussion (Chapter 4). In this chapter, descriptive statistics for the sample's demographics and green hotel behaviors and perceptions, attitudes and consumer responses are followed by the hypothesis tests. These

relationships are discussed in context with the literature to aid understanding. Finally, a Conclusion (Chapter 5) is provided for the study. The conclusion brings together the disparate threads of the research to integrate a single response to the aims and objectives of the study.

1.7 Definition of Terms

Attitude. An attitude is "a disposition to respond favorably or unfavorably to an object, person, or event," as determined by emotions, cognitions, experience, and external information (Ajzen, 2005, p. 3). Attitudes are one of the main determinants of individual choices, as they represent the individual's holistic understanding of how appropriate and effective a given choice would be. However, the influence of attitudes does vary depending on the type of decision being made, for example whether it is a public or private decision (Ajzen, 2005).

Behavioral intention. A behavioral intention is the individual's explicit decision to undertake a specific behavior or action (Ajzen, 1991; Ajzen, 2005). Behavioral intention does not always result in action, as a number of factors can interfere with the actual action. For example, the individual can change their mind, forget, or be prevented from undertaking an action (Ajzen, 2005).

Green consumer: Green consumers are consumers with high levels of environmental concern and environmental ethics, who enact these concerns through consumption choices (such as energy-saving or green energy, ethical clothing, organic food, etc.) (Young, Hwang, McDonald, & Oates, 2010).

Green hotel: A green hotel focuses on environmental practices, like water-saving and energy-saving, to attract green consumers (Han & Chan, 2013).

Hedonic value. Hedonic value, also sometimes called experiential value, is one type of value consumers may perceive, "reflecting the entertainment and emotional worth of shopping; non-instrumental, experiential, and affective (Sánchez-Fernández & Iniesta-Bonillo, 2007, p. 436)." Hedonic value can also relate to the enjoyment of the product itself, for example its luxurious characteristics or the enjoyment the individual gains in the use of the product or service (Sánchez-Fernández & Iniesta-Bonillo, 2007).

For example, hedonic value of a hotel could include the comfort of the rooms and availability of a spa.

Perceived behavioral control. Perceived behavioral control is the extent to which the individual believes he or she can successfully complete the contemplated action; for example, this can include dimensions of affordability, access, or capability (Ajzen, 1991; Ajzen, 2005). Perceived behavioral control is an attitude that specifically relates to how possible the individual believes an act is, which sets the theory of planned behavior (TPB) apart from other attitude-behavior theories (Ajzen, 2005).

Perceived value. Perceived value is the individual's assessment of the suitability of a product or service, considering what they paid for the product or service (Sánchez-Fernández & Iniesta-Bonillo, 2007). Perceived value is used here because consumer value has variable and opaque origins and individual assessments may often be idiosyncratic (Gallarza, et al., 2011).

Subjective norms. Subjective norms are individual's perceptions about social acceptance of a contemplated action, both in the reference group and wider society (Ajzen, 1991; Ajzen, 2005). The subjective norms can relate to what others do and what they would support the individual doing. Subjective norms can relate to morality and ethics, but can also be based in economic and social class and established social groups (Ajzen, 2005). Subjective norms may therefore vary between different cultures and different groups within cultures.

Utilitarian value. Utilitarian value, also called use value, is another common type of value, which is "instrumental, task-related, rational, functional, cognitive, and a means to an end… (Sánchez-Fernández & Iniesta-Bonillo, 2007, p. 436)." Utilitarian value can relate to dimensions such as quality or effectiveness of a given product or service, or the extent to which it fulfills specific objective functional criteria (Sánchez-Fernández & Iniesta-Bonillo, 2007).

Visit Intention: Visit intention (VI) is a consumer's intention to visit a particular location, hotel, or business in future (Han, Hsu, & Lee, 2009).

Willingness to pay more: Willingness to pay more (WPM) is a consumer's willingness to pay a price premium above comparable services for perceived benefits such as environmental friendliness (Han, et al., 2009).

Word of mouth intention: Word of mouth intention (WOMI) is a consumer's intention to recommend the hotel to others, either n person or online (Han, et al., 2009).

CHAPTER 2
LITERATURE REVIEW

This chapter presents the outcomes of the literature review that was conducted in preparation for the research. The literature review draws primarily on academic literature, including peer-reviewed journals, book chapters, and other sources. The goal of the review is to establish a theoretical framework for the study and to assess empirical information available. This allows for establishment of a conceptual framework and hypotheses in a strong basis of existing academic literature.

The chapter begins by reviewing the theoretical concept of consumer response. Consumer responses of interest in this study include behavior intention (BI) which includes visit intention (VI) and word of mouth intention (WOM); and willingness to pay more (WPM), and. The chapter then reviews the existing research on consumer responses to green hotels. This section establishes that there is a gap in the research on Thai domestic consumers. Next, the extended Theory of Planned Behavior (TPB) model, which includes Perceived Value (PV), is explained. The latter half of the chapter presents the conceptual framework of the study and examines the fourth hypotheses for the primary research. This section draws on a wide empirical base for green consumption and the TPB to predict relationships that could be observed in the primary research.

2.1 Theoretical Concept of Consumer Response

The first theoretical concept discussed in this research is that of consumer response. This section defines the consumer and the consumer response and briefly considers its importance for the research. Three specific types of consumer response are then examined that are relevant to the consumer situation.

2.1.1 Consumers and consumer response

This research is concerned with consumer behavioral responses. A consumer can be briefly defined as an individual engaged in cognitions, emotions, and behaviors surrounding selection, use, and disposal of goods (Hoyer, MacInnis, & Pieters, 2012). Consumers are stimulated both by internal conditions (such as wants and needs) and

external stimuli (such as marketing or advertising) (Hoyer, et al., 2012). Consumer responses can be understood as the outcomes of experience with a given product category, which can include direct experience (product or service satisfaction) or indirect experience (such as response to advertising) (Kardes, Cronley, & Cline, 2011; Oliver, 1993).

There are three types of consumer responses, including emotional or affective responses, mental or cognitive responses, and behavioral responses (Kardes, et al., 2011). Three types of consumer responses can be defined as follows:

"Emotional responses (also called affective responses) reflect a consumer's emotions, feelings, and moods… Mental responses (also referred to as cognitive responses) include a consumer's thought processes, opinions, beliefs, attitudes and intentions about products and services… Finally, *behavioral responses* include a consumer's over decisions and actions during the purchase, use, and disposal activities identified earlier." (Kardes, et al., 2011, p. 11).

According to Kardes, et al. (2011) these responses can have varying levels of evaluation and brand specificity. For example, a consumer buying a car is likely to have an emotional response to buying the car, but also evaluative and non-evaluative thoughts and feelings about the study. Furthermore, the evaluation and eventual behavior (action) can relate to which brand of product or service to procure, how much to pay, what criteria are used to select a given product, and which retail channel should be used to buy the product (Kardes, et al., 2011).

Consumer cognitive, affective, and behavioral responses are important for consumer service situations because these responses influence the consumer's eventual behaviors and actions toward the product, service, brand, or retail channel (Hoyer, et al., 2012; Kardes, et al., 2011). The consumer response is important from a theoretical perspective because it reflects how the consumer feels, thinks, and acts toward the company or brand, or their product offering.

Measuring responses can be highly complicated. For example, one study on retail environments found that consumer shopping orientations change the role of affective and cognitive response on buying intentions (Kaltcheva & Weitz, 2006). These authors found that high recreational shopping motivation were more likely to

positively respond to excitement, while those with high task-oriented shopping motivation were more likely to respond negatively (Kaltcheva & Weitz, 2006). There are also challenges in measuring aspects of consumer response, especially affective and to a lesser extent cognitive response, since there is no standard framework and measures are often self-reported (Salzberger & Koller, 2013). In particular, responses may be biased by what participants view as socially acceptable, what they are willing to disclose, and whether they remember their responses, especially in retrospective studies (Salzberger & Koller, 2013). Consumer responses, especially affective and cognitive responses, can also vary depending on the consumption situation, which can negatively affect outcomes (Labbe, Pineau, & Martin, 2012). The extent of this uncertainty has led the research away from direct measurement of consumer affective and cognitive responses, especially given their overall complexity and unpredictability (Kardes, et al., 2011). Instead, behavioral responses are measured in this study.

2.1.2 Types of consumer response

Three behavioral responses were identified in the hospitality literature, including behavior intention (BI) and willingness to pay more (WPM). These intentions specifically relate to consumers acting as tourists, or individuals travelling away from home for a temporary period of time for purposes such as leisure travel, entertainment, or business (Page, 2009).

2.1.2.1 Behavior Intention (BI)

Behavior intention in this study includes visit intention (VI) and words of mouth intention (WOMI). The detail of each component is discussed in the following section.

2.1.2.1.1 Visit intention (VI)

Visit intention (VI) can be defined as a consumer behavioral response to a given destination culminating in a goal of visiting (or sometimes revisiting) the destination (Phillips & Jang, 2007). There are a number of known factors that can influence VI for a given destination (Phillips & Jang, 2007). For example, Phillips and Jang (2007) found that visitor motivations, as well as cognitive and affective components of the destination image, influenced the consumer's visit intention. The destination image is important because, particularly for first-time visitors,

the destination image comprises everything the tourist knows and feels about the destination, while for repeat visitors it also incorporates their attitudes formed during past experience (Page, 2009). Thus, VI represents the behavioral response of the consumer, but it is also based on the consumer's affective and cognitive responses. However, individual experience is not the only factor in VI. A general study of Hong Kong visitors found that perceived attractiveness can also influence VI, and furthermore that this factor is more important than satisfaction with previous visits (Um, Chon, & Ro, 2006). Furthermore, visit intention may be influenced by factors that are related to a specific type of consumption decision, such as green hotels (Chen & Tung, 2014). These authors used VI was influenced by attitudes and perceived moral obligations related to the hotel, as well as perceived behavioral control. (This study is discussed in more detail below.) In summary, VI is a critical aspect of consumer response in tourism because it encapsulates whether a tourist will actually visit a given destination or location, such as in this study a green hotel. However, formation of VI is complicated, and can involve existing destination image, previous experience, attitudes, emotions, motivations, and cognitions that vary by individual and visit context.

2.1.2.1.2 Word of mouth intention (WOMI)

The second behavioral intention under consideration is word of mouth intention (WOMI). Word of mouth (WOM), or interpersonal communication about a given destination, business or consumer good, is thought to be one of the most influential types of information when individuals are making tourism decisions (Litvin, Goldsmith, & Pan, 2008). WOM may be delivered in person, which limits the reach of WOM to personal friends and acquaintances (Litvin, et al., 2008). However, increasingly WOM is delivered through online channels such as review sites and social networking sites, where the interpersonal communication may reach unrelated parties (Chen & Xie, Online consumer review: Word-of-mouth as a new element of marketing communication mix, 2008). WOM may be particularly important in niche tourism sectors, such as medical tourism (Yeoh, Othman, & Ahmad, 2013) or green tourism (Lee, Hsu, Han, & Kim, 2010). This is because of the relative lack of information about these sectors and the high preference for personal trust. However, WOM can also have

an influence in destination image and visit intentions of others, particularly if it is from a trusted source (Jalilvand & Samiei, 2012).

In this research, WOM intention (WOMI), or the consumer's behavioral intention to provide WOM (either positive or negative), is the concern. Typically, consumers may have a higher level of WOMI in the case of dissatisfactory experiences than they do with satisfactory experiences, although the extent of WOMI in the case of dissatisfaction is determined by strength of feeling and attitudes (Cheng, Lam, & Hsu, 2006). WOMI is one of the critical metrics of customer satisfaction, because the extent to which consumers are willing to offer WOM indicates their level of satisfaction (Keiningham, Cooil, Aksoy, Andreassen, & Weiner, 2007). In summary, WOMI represents the aspect of consumer response to green hotels that will influence other consumers' actions through their destination image and perception of the hotels. Consumers may have a higher WOMI in dissatisfactory experiences, but will also have a positive WOMI in satisfactory experiences.

2.1.2.2 Willingness to pay more (WPM)

The second consumer response that is examined in this study is willingness to pay more (WPM). This concept is also often called willingness to pay a premium (WPP) or simply willingness to pay (WTP) (Kardes, et al., 2011). WPM relates to consumer's willingness to pay a price premium over a comparable non-green product that offers the same functionality (Kang, Stein, Heo, & Lee, 2012). This is important because at least in some markets, such as in the United States, green hotels charge a significant price premium, which they justify due to the higher costs of building construction and maintenance (Kang, et al., 2012). This is consistent with other categories of green goods and services, such as green consumer products, which are also often higher-priced than conventional equivalents (Royne, Levy, & Martinez, 2011).

As with other consumer responses, there are some complex issues related to predicting WPM. Studies of both green hotels and green consumer products have shown that overall, a high level of general environmental concern is positively related to WPM (Kang, et al., 2012; Royne, et al., 2011). At the same time, there are known factors that have a negative effect, such as the consumer's level of

price sensitivity (D'Souza, Taghian, Lamb, & Peretiatko, 2007). Consumers that are highly price sensitive prioritize the price of the product, seek deals and show lower WPM, even if they have relatively high levels of environmental concern (D'Souza, et al., 2007). The complexity of individual factors is implicated in the attitude-behavior gap that has been observed in green behavior, in which consumers have positive attitudes but are less likely to actually engage in green consumption (Ha-Brookshire & Norum, 2011). In summary, WPM is a critical response for green hotels because they are priced higher than conventional equivalents, but is complex to predict because of personal characteristics like environmental awareness and price sensitivity.

2.2 Consumer Responses to Green Hotels

Although there is some research on green hotels in Thailand, and some of this research includes consumer responses, the research is complicated by Thailand's position as a major international tourism destination. The result is that there is limited evidence regarding the responses of Thai consumers to green hotels specifically. For example, one study on green hotels in Thailand only included about 9% domestic tourists in its sample (Muangasame & McKercher, 2015). In this section, research is reviewed from Thai consumers. It is then broadened to take into account evidence from other Asian countries.

2.2.1 Thai consumer responses to green hotels

Very few studies have assessed the responses of Thai consumers to green hotels, although some studies have been conducted in Thailand. One such study used a 360º assessment to examine the viewpoints of key stakeholders, including visitors, in the 7 Greens sustainable tourism policy (Muangasame & McKercher, 2015). The authors' research included a survey of hotel visitors, one of the main stakeholder groups, along with other assessments of the program based on the viewpoints of hoteliers, policymakers, and others. The hotel visitor group was primarily international, but about 9% of respondents were Thai domestic tourists. They found that from the visitor perspective, the sustainable tourism activities, including green hotel initiatives, had a powerful theoretical attraction and the ideals and goals of the programs received high levels of support. However, in practice, the authors stated, there was not as strong

a support for the specific measures and practices that were put into place. Instead, these policies did not seem to have a clear connection to the goals (Muangasame & McKercher, 2015). While this difference in support for the principles and lack of support for the implementation could explain an attitude-behavior gap (Ha-Brookshire & Norum, 2011), the authors did not explain the actual consumer responses or focus on the Thai visitors. This makes it difficult to draw any conclusions specifically about consumer behavioral responses from this study, although it does provide support for the emotional and cognitive responses. Since this is the only study that could be found that addressed Thai domestic tourism in the context of green hotels, there is a significant gap in the research, particularly given the importance of domestic tourism in Thailand.

2.2.2 Asian consumer responses to green hotels

Since only a single study that could be found that specifically addressed Thai consumer responses to green hotels, the literature search was widened to include other Asian consumers. Asian consumer responses were the focus of the broader search because of cultural similarities between Asian cultures, which although they are not entirely consistent do exist (Hofstede, Hofstede, & Minkov, 2010). Furthermore, many studies of green hotels in Thailand actually focus on tourists from Asian home destinations, which means the focus of the study is closer to the existing one. This provides some guidance for expected responses, although there is still a research gap.

One study examined the formation of loyalty for green hotels in the South of Thailand in a sample of Asian tourists (n = 409) (Pianroj, 2012). The main consumer response the individuals examined was customer loyalty (including revisit intention and attitudinal loyalty), which combines emotional, cognitive and behavioral consumer responses. The authors proposed that green image and perceived service quality would contribute to green satisfaction, which would in turn affect the consumer response. Green image relates to the consumers' perception of the hotel and its green attributes. The authors found that perceived service quality factors of reliability, assurance, and responsiveness, along with green image, influenced green satisfaction. In turn, green satisfaction influenced both attitudinal and behavioral loyalty (Pianroj, 2012). Thus, this study is helpful for the current research since it confirms that the green image of the

hotel could contribute to satisfaction and consumer responses in relation to the hotel. However, it did not examine the full set of responses in question here.

A second study also examined the implementation of green hotel practices and consumer responses in Thailand, this time through a case study of a Bangkok hotel (the Pathumwan Princess Hotel), which was an early adopter of green practices in Thailand (Plangpramool, 2012). The authors found that there were a range of modifications to the standard hotel, including energy-saving and water-saving measures, an area for recreation, and limitation of climate control in the building. While provisions such as energy-saving key card systems and linen reuse programs were relatively standard, the hotel also implemented some unusual practices, such as a smoking block specifically for Japanese tourists (who expected smoking rooms), in order to protect air quality for other guests, and offering guests the option to wash their own linens. The authors conducted a descriptive study of hotel guests, who were mainly Asian (including about 9% Thai guests) (n = 120), along with interviews of several key hotel departments. The hotel department managers ranked the green practices of the hotel very highly. Visitors recognized energy-saving and water-saving campaigns, though they had lower perceptions of the solar energy campaign. They were also more likely to perceive the hotel's clean environment than wastewater treatment and recycling, and had very low perceptions of the environmental quality of the food and beverage. The responses were mainly from first-time customers (Plangpramool, 2012).

A third study examined the perception of green hotels in Mainland Chinese and English tourists in Hong Kong (Han & Chan, 2013). This study was a small-scale qualitative exploratory study based on in-depth interviews with members of the two groups (n = 15 Chinese tourists and n = 15 English tourists). The authors found that visitors had strong ideas about what a green hotel's attributes should be. For example, hotels were expected to engage in energy-saving measures such as automatic switches to turn off lights, and to use environmentally friendly sustainable materials in design and construction. Visitors also supported the importance of reusable toiletries rather than single-use packets. However, there were negative perceptions related to the hotel's price premiums and lack of comfort. Particularly, guests felt that while water-saving measures were important, they did not want to notice issues such as low water pressure.

They also felt that the hotels could sometimes be austere and lack comforts of non-green hotels. Importantly, Han and Chan (2013) estimated WPM for the respondents, noting that most respondents were willing to pay about 10% premium compared to non-green hotels. Furthermore, confusing or inconsistent pricing could lead to perceptions of "greenwashing", or claiming green attributes in order to justify a higher price. Thus, the issue of pricing was particularly important. While this study was only partly based in Asian tourists, and has limitations on generalization because of its small scale and qualitative nature, it does show some of the potential consumer responses to green hotels and specific green hotel attributes.

In summary, studies on Asian tourists and their responses to green hotels showed that there were positive perceptions and responses. However, these responses were limited. Tourists were not likely to perceive attributes they did not directly encounter, like solar energy. There were also points of dissatisfaction, like lack of comfort, which could affect customer responses like revisit intentions or WPM. This research will support the literature by building a more precise picture of consumer response.

2.3 An Extended Theory of Planned Behavior (TPB) Model

In order to model consumer response toward green hotels, an attitude-behavior theory called the Theory of Planned Behavior (TPB) has been selected. The TPB model has been the basis for a number of previous studies on green hotel consumer responses and consumer responses in other green hospitality sectors, and has been generally effective in these studies (which are all discussed in more detail in the following section) (Baker, Davis, & Weaver, 2014; Chen & Tung, 2014; Ham & Han, 2013; Han, Hsu, & Lee, 2009; Han, Hsu, & Cheu, 2010; Han & Kim, 2010; Han, Hsu, Lee & Sheu, 2011; Ham & Han, 2013; Han, 2015; Oreg & Katz-Gerro, 2006). In this section, the TPB model is presented and its use in previous studies are examined. Next, the inclusion of the perceived value (PV) external variable as an extension to the model is presented and justified.

2.3.1 The basic TPB model

The theory of planned behavior (TPB) is an attitude-behavior model, or a model that attempts to explain an individual's actions based on their attitudes (Ajzen, 2005). An attitude can be defined as "a disposition to respond favorably or unfavorably to an object, person, institution or event," which is informed by the individual's emotions, cognitions, outside information, and previous experience (Ajzen, 2005, p. 3). The TPB was proposed as an extension of the earlier Theory of Reasoned Action (TRA), improving the connection between attitudes and behaviors by adding a third type of attitude (perceived behavioral control) (Ajzen, 1991). The basic TPB model as proposed by Ajzen (1991) is shown in Figure 1.

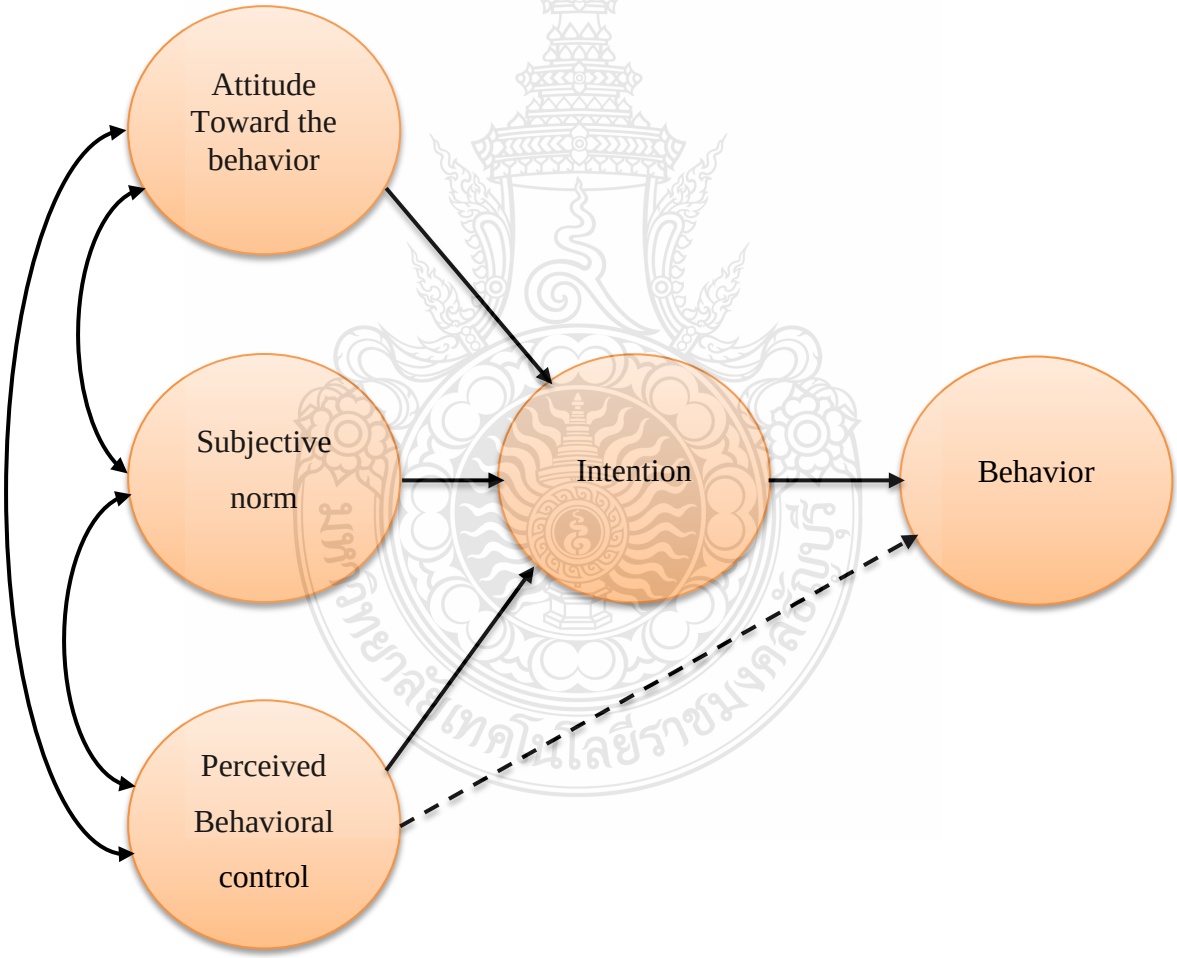

Figure 2.1 The Theory of Planned Behavior
(Source: Ajzen, 1991, p. 182)

2.3.1.1 The components and relationships of the TPB

The components of the TPB can be defined briefly as follows (Ajzen, 1991; Ajzen, 2005). The three key attitudes include attitude toward the behavior, subjective norms, and perceived behavioral control. The attitude toward the behavior is the individual's general dispositions about the proposed behavior, particularly about its likely efficacy at achieving a given goal. Subjective norms, on the other hand, are the individual's perceptions about how socially acceptable the proposed behavior is; for example, whether it is likely to be something others would recommend or would actually do. Finally, perceived behavioral control is the individual's beliefs about how well he or she could actually perform the behavior; this could include concerns like self-efficacy or barriers such as cost. These attitudes influence each other, showing high internal correlations of up to 0.60 (Ajzen, 2011).

The model also has intermediate and final outcome variables, including behavioral intention and behavior. Behavioral intentions are the individual's stated decision to engage in the behavior, which is then followed by the actual proposed behavior. Behavioral intentions may be influenced by all three attitude variables, while actual behaviors are influenced by behavioral intentions and perceived behavioral control. As Ajzen (2005) notes, behavioral intention does not perfectly predict behavior; for example, individuals may forget their intentions, change their mind, or be unable to engage in the behavior for some other reason, like lack of availability. Therefore, most studies using the TPB actually assess self-reported behavioral intentions instead of behavior (Ajzen, 2005).

2.3.1.2 Reliability, validity and critiques of the TPB and use in other studies

Several meta-analyses have demonstrated that the TPB has a relatively high predictive capability, though it is not perfect (Ajzen, 2011). Ajzen's (2011) analysis of previous meta-analyses showed that while a few studies could reach internal correlations of attitudinal variables and behavioral intention of up to 0.8, most studies reached at best only 0.6. Furthermore, correlation of behavioral intention and behavior typically ranged from 0.43 to 0.57 (Ajzen, 2011). Correlation of perceived behavioral control and behavior is typically somewhat lower, with correlations as low as 0.31

observed (though most range around 0.40 for this relationship). This suggests that the basic model is relatively predictive, though it is not perfect.

Ajzen (2011) remarked that some of the most interesting applications of the model addressed questions like habitual behavior, short-term versus long-term decision making, and the importance of affect and emotional response in the decision process. For example, this includes the importance of general or background beliefs, which could influence the individual's decision even though they are not specifically about the TPB (De Groot & Steg, 2007). Experience with the behavior in question also influences attitude formation, which was shown by another author (Glasman & Albarracín, 2006). A further study demonstrated that about 9% of variance in the attitude-behavior relationship was influenced by self-identity (Rise, Sheeran, & Hukkelberg, 2010). Anticipated affect (5%) and moral norms (3%) also contribute, though to a lesser extent (Rivis, Sheeran, & Armitage, 2009).

Ajzen also noted that it was usual to find that context-specific extensions of the model that were sensitive to the decision being made often improved the efficacy of the model (Ajzen, 2011). Thus, there is a long history of use, extension and flexible application of the TPB in order to reflect different concerns. There are some critiques of this model, however. For example, one author remarked on the lack of experimental testing, validity concerns (especially surrounding its mediation relationships), and its nature as a correlation-based model (Sniehotta, Presseau, & Araújo-Soares, 2014). These critiques are valid and do demonstrate some potential issues with the TPB. However, to date, no reliable model of individual decision-making has emerged to replace the TPB, which Sniehotta, et al. (2014) acknowledge is dominant; as a result, it remains the best model for the current test. However, in order to improve its performance, as with other authors, this research will apply an extension – Perceived Value. It will also model behavioral intention as a set of three consumer response variables (VI, WPM, and WOMI), as defined above, since these are the actual behavioral intentions of interest here. This approach follows Han, et al. (2009) and Ham and Han (2013).

2.3.2 Extending the TPB for green hotels: Inclusion of perceived value (PV)

This research includes perceived value (PV) as an extension of the basic TPB, acting as a fourth attitudinal factor influencing behavioral intention. PV can be briefly defined as the consumer's evaluative judgment of the suitability of a given product or service (Sánchez-Fernández & Iniesta-Bonillo, 2007). *Value* is a difficult concept to define and to work with, because of varying personal perceptions of value that are essentially opaque to the researcher (Gallarza, Gil-Saura, & Holbrook, 2011). However, over time it has become a more useful concept as multi-dimensional models that accommodate multiple perceptions of value have emerged (Gallarza, et al., 2011). Because perceived value can have a significant effect on perceptions and consumer responses (Gallarza, et al., 2011), it is worth considering this aspect of the consumer's cognitive and affective response here.

This research focuses on a multi-dimensional model of perceived value, which incorporates utilitarian and hedonic value. This definition of perceived value is an experiential model, which incorporates different aspects of the consumption experience, not simply evaluating the end result. The two dimensions include: "*utilitarian value:* instrumental, task-related, rational, functional, cognitive, and a means to an end; and *hedonic value*: reflecting the entertainment and emotional worth of shopping; non-instrumental, experiential, and affective (Sánchez-Fernández & Iniesta-Bonillo, 2007, p. 436)." The importance of these dimensions is hinted at in previous research into green hotels, for example Han and Chan's (2013) of green hotel perceptions, in which some aspects of the hotel such as energy saving (providing utilitarian value) were well-accepted, while others, such as lack of comfort (failing to provide hedonic value) were rejected. While this model is not as comprehensive as others, which include economic and other values (Sánchez-Fernández & Iniesta-Bonillo, 2007), it does provide an insight into one of the central conflicts in consumer values of the green hotel.

Perceived value has not been included as an extended variable of the TPB in previous studies, which have generally focused on green attitudes or other more general attitudes such as moral obligation (e.g. Baker, et al., 2014; Chen and Tung, 2014). However, the potential conflict between utilitarian and hedonic value is at the heart of tourist decision-making (Budeanu, 2007). Simply, individuals engage in tourism at least

in part because of the hedonic experience that they cannot get at home, and do have expectations about their stays, which can even influence and reform their preferences in future (Budeanu, 2007). This expectation of hedonic value is one of the potential factors that create an attitude-behavior gap in sustainable tourism, where even tourists with high environmental awareness and positive environmental attitudes may engage in environmentally damaging behavior or reject green initiatives because they damage their experience or are too expensive (Antimova, Nawijn, & Peeters, 2012). This implies that if sustainable tourism is to become more accepted, tourism providers need to find a way to offer an experience that is both sustainable and represents utilitarian and hedonic value for the consumer (Antimova, et al., 2012). Thus, in order to fully represent the consumer attitude toward the green hotel experience *as* a tourism experience, PV will be included in the model.

2.4 Conceptual Framework and Hypotheses of the Research

The final goal of this chapter is to present the conceptual framework and hypotheses of the study. The conceptual framework (Figure 2) was formulated using the TPB, discussed in the previous section, as the foundational theory. The concept of perceived value was added as an extension to the model, which incorporates tourist beliefs about the nature and goals of tourism and an inherent evaluative judgment regarding whether the green hotel delivers the required services and facilities (utilitarian value) and experience (hedonic value). The consumer response in this model represents the behavioral intention to engage in a series of situation appropriate behaviors, which were selected based on previous research into consumer response to green hotels (Ham & Han, 2013; Han, et al., 2009). Three consumer responses are identified in this research.

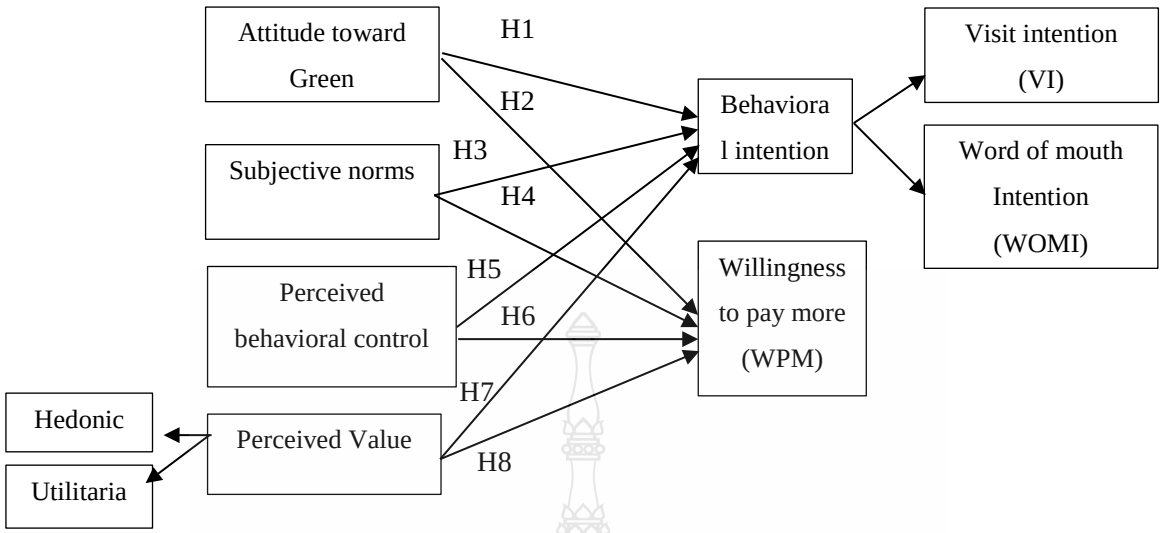

Figure 2.2 Conceptual framework of the research

Table 1 summarizes the theory definitions that will be used in the research and their sources. These definitions are basic definitions that incorporate those used in previous research, which summarize the proposed theory and aspects of the components of the conceptual framework. In the following sections, each of the proposed hypotheses is defined based on the existing literature, including studies that have found both for and against the relationships. The evidence for these relationships comes primarily from research in green hotels, drawing on populations from all over the world and in different countries. The evidence also includes some studies that have addressed other types of green services, such as green restaurants, which provides supplementary support and in some cases points out possible conflicting findings.

Table 2.1 Summary of operational variables used in the conceptual framework

Variable Type	Variable	Components	Definition	Sources
Independent	Attitude Toward Green		General beliefs and dispositions about green hotels and environmental awareness	Ajzen (2005)
	Subjective Norm		Beliefs about the social acceptability of green hotels	Ajzen (2005)
	Perceived Behavioral Control		Beliefs about ability to select green hotels, such as their availability, affordability and price	Ajzen (2005)
	Perceived Value		An evaluative judgment of the worth of the green hotel	Sánchez-Fernández and Iniesta-Bonillo (2007)
		Utilitarian Value	Evaluation of how well the green hotel fulfills the utilitarian requirements of the guest.	Sánchez-Fernández and Iniesta-Bonillo (2007)
		Hedonic Value	Evaluation of the experience the guest has during the stay.	Sánchez-Fernández and Iniesta-Bonillo
Dependent	Behavioral intention		The consumer's cumulative emotional, cognitive and behavioral responses to their attitudes and experience when contemplating a green hotel	Hoyer, et al. (2012) Kardes, et al. (2011)
		Visit Intention (VI)	The consumer's intention to visit or revisit a green hotel	Han, et al. (2009) Ham and Han (2013)

Table 2.1 Summary of operational variables used in the conceptual framework (Cont.)

Variable Type	Variable	Components	Definition	Sources
		Word of Mouth Intention (WOMI)	The consumer's intention to pass personal recommendations (word of mouth) about a green hotel, either in person or online.	Han, et al. (2009) Ham and Han (2013)
	Willingness to Pay More (WPM)		The consumer's willingness to pay a price premium when visiting a green hotel	Han, et al. (2009) Ham and Han (2013)

2.4.1 Green attitudes and consumer response to green hotels

The first relationship studied addresses attitudes toward green hotels and environmental awareness (green attitudes) and the consumer response. This encapsulates the relationship between attitudes and behavioral intentions in the TPB (Ajzen, 1991). In response to the critique that attitudes do need to be broadened to include general attitudes toward the activity (Ajzen, 2011; Sniehotta, et al., 2014), the study includes a multidimensional attitude toward both the concept of green hotels and the environment.

2.4.1.1 General environmental attitudes

A study including consumers from 27 different countries used the TPB as a general framework to explain pro-environmental behaviors such as recycling, not driving, and environmental citizenship behaviors (Oreg & Katz-Gerro, 2006). These authors found that environmental concern, along with perceived threat, influenced willingness to sacrifice (their behavioral intention model). The authors then found that this influenced the environmental behaviors (Oreg & Katz-Gerro, 2006). In summary, this study demonstrates that environmental awareness, or knowledge and attitudes about the environment and the potential consequences of consumer behavior, does influence consumer choices.

Han, et al. (2011) specifically studied which attitudes have the strongest effect on consumer responses, including VI, WOMI, and WPM. They found that

importance of environmental friendliness (IMEF), level of responsibility of business corporations (LRBC), and inconvenience of being environmentally friendly (INEF) influenced VI. However, only IMEF and LRBC affected WOMI and WPM (Han, et al., 2011). Overall, however, these models were weak, with a maximum R^2 of 0.277 (for VI). Thus, while the authors did identify some general attitudes, these attitudes are not very predictive on their own.

Han's (2015) study extended the TPB in order to incorporate value-belief-norm theory as factors in attitude toward green hotel stays. The study was conducted online in a sample of US consumers (n = 300). This study included both general environmental attitudes and attitudes specifically about green hotels. Han (2015) found that general attitudes relating to beliefs about the biosphere, environmental worldviews, and a sense of moral obligation had a direct effect on the behavioral intention to stay in a green hotel. Thus, there were several general environmental attitudes that influenced the hotel choice.

A number of other studies have identified general green attitudes as a factor in the consumer choice of green hotels. For example, Baker, et al. (2014) found that a general belief about the importance of environmental protection influenced consumer choice of green hotels. A study in Taiwan extended the TPB to incorporate moral obligation and attitudes about the hotel separately (Chen & Tung, 2014). These authors found that moral obligation had a stronger effect than attitudes toward the green hotel. A study of patronage of green restaurants also showed that environmental concern was a significant attitudinal factor in VI (Hu, Parsa, & Self, 2010).

2.4.1.2 Attitudes toward green hotels and other green behaviors

In addition to the studies on general environmental attitudes and environmental concern, a number of studies have also supported the importance of attitudes toward the specific behavior. For example, one group of authors used the TPB to measure behavioral intentions for eating at eco-friendly restaurants (Kim, Njite, & Hancer, 2013). They studied these relationships in a sample of American university students (n = 411). These authors found that attitudes toward the restaurants were significant in both their model (incorporating anticipated regret) and in the competing

model found in structural equation modeling (SEM), although subjective norms had a stronger effect (Kim, et al., 2013).

Some studies have examined both general and specific green attitudes. Han's (2015) study of American consumers found, in addition to general environmental attitudes, that specific attitudes about green hotels had an influence on behavioral intention to stay in the green hotel. However, this influence was weaker than the influence of moral obligation (the general environmental norm) (Han, 2015). Chen and Tung (2014) also found the general environmental attitude they studied (moral obligation) was stronger than specific attitudes about green hotels and their attributes.

Han and Kim (2010) took a slightly different approach, basing their model of attitudes toward green hotels on behavioral beliefs and service quality. They found that service quality actually had a higher influence on attitudes toward green hotels than behavioral beliefs (for example, about whether the individual should stay in a green hotel). However, these authors' findings were relatively weak; attitude toward green hotels was one of the weaker factors in the revisit intention (their consumer response variable) (Han & Kim, 2010). Thus, while this result was positive, it is unlikely based on these findings that this is the most important factor. In contrast, Han, et al.'s (2010) study found that attitudes toward green hotels were actually the most significant factor out of the TPB framework considered for VI. This is more consistent with the findings of Han, et al., (2009), who found that attitudes toward green hotels significantly influenced intention to participate. Kun-Shan and Teng (2011) also found that attitudes were stronger than subjective norms.

Not all attitudes toward green hotels are positive. For example, Baker et al. (2014) found that there were some negative attitudes consumers had about green hotels, including that they may not believe hotels are environmentally friendly (greenwashing) or that the green activities are money-saving efforts. Hotels may also be perceived as inconvenient or too expensive. These attitudes, like more positive attitudes, also had an effect on the behavioral decision (Baker, Davis, & Weaver, 2014). Furthermore, poor experience can result in intention to spread negative WOM (Cheng, Lam, & Hsu, 2006).

2.4.1.3 Hypothesis 1 and 2

As discussed above, there is evidence that there are two types of attitudes related to green hotel consumer response. First, there are general environmental attitudes, often measured as environmental concern, which represent broad attitudes toward the environment. Second, in keeping with the TPB, there are specific attitudes about the behavior of staying in a green hotel. The evidence suggests that both of these variables can influence consumer response, with at least some evidence for VI, WOMI, and WPM. This evidence does have some conflicts, and there is at least some suggestion that general environmental attitude is a stronger influence than attitudes to green hotels themselves. In keeping with these findings and the theoretical relationships stated in the TPB, the first two hypothesis are:

Hypothesis 1: Green attitudes (environmental concern and attitude to green hotels) will have a positive influence on behavior intention to green hotels (VI and WOMI).

Hypothesis 2: Green attitudes (environmental concern and attitude to green hotels) will have a positive influence on willingness to pay more

2.4.2 Subjective norms and behavior intention and willing to pay more to green hotels

The second relationship studied is behavioral norms. In the underlying theoretical model of the TPB, there is a positive relationship between subjective norms and behavioral intentions (Ajzen, 1991). In this section, the evidence for subjective norms and behavior intention and willingness to pay more to green hotels are assessed. Because subjective norms are a concept particular to the TPB, most of the evidence here comes from TPB-based studies. There is some evidence that subjective norms, such as perceived threat to the social group, do play a role in general environmental decisions (Oreg & Katz-Gerro, 2006). However, for this research the main concern was the effect of subjective norms specifically on the buying decision; therefore the scope of this review is somewhat limited.

2.4.2.1 Positive findings

Han and Kim (2010) studied an extended TPB model for green hotel choice with an internet survey of American green hotel visitors, studying revisit intention as the consumer response. The authors found that subjective norms only correlated significantly with control beliefs in a large correlation of the constructs. However, their SEM analysis found that subjective norms were the second strongest factor in the model in revisit intention after overall image, indicating that subjective norms were actually highly significant for predicting visit intention (Han & Kim, 2010). Another study, by Han et al. (2010) had very similar results. These authors formulated subjective norms as the beliefs of people important to the respondent about staying in green hotels. This study showed that subjective norms were only correlated with control beliefs. However, the structural model for VI was the second strongest factor after attitudes (Han, Hsu, & Cheu, 2010). This study also found that motivation to comply with normative beliefs had a significant influence on perception of structural norms (Han, et al., 2010). Han, et al.'s (2010) study is useful both because it supports the importance of subjective norms and because it provides specific guidance on how to phrase questions regarding subjective norms. This is important because of the ambiguity of some subjective norms (Cheng, Lam, & Hsu, 2006).

Kun-Shan and Teng (2011) conducted a study of green hotel consumers using face-to-face surveys in Taiwan (n = 250). They tested the basic TPM framework in their assessment of behavioral intentions to stay in a green hotel. The authors did find that subjective norms influenced visit intentions, although attitudes had a stronger direct influence. Importantly, these authors also found that subjective norms had a very high influence on attitudes toward green hotel stays (Kun-Shan & Teng, 2011). Thus, this study also provided support for the idea that green hotel consumer responses are influenced by subjective norms, both directly and indirectly.

Cheng, et al. (2006) applied the TPB to negative WOMI, or intention to spread negative word of mouth. These authors used the standard TPB. They found that subjective norms did influence negative WOMI, but that attitudes to the hotel were a more significant factor in the negative WOM intention. This study provides important support for the current research because most authors do not examine the role of subjective norms on WOMI. Instead, they primarily focus on VI (or variants such as revisit intention). However, Cheng, et al.'s (2006) findings strongly suggest that other types of consumer response are influenced by subjective norms.

A study of intention to eat at green restaurants showed that subjective norms could potentially be the strongest factor in the decision (Kim, et al. 2013). These authors found that in the standard TPB model, subjective norms had a relatively high correlation to intention to eat in a green restaurant (r = 0.45), compared to attitudes (r = 0.31) and especially perceived behavioral control (r = 0.05). Even in their extended model, which included anticipated regret, subjective norms remained the strongest correlated variable (r = 0.43) (Kim, et al., 2013). This finding does support the importance of subjective norms generally. The finding that subjective norms is stronger than attitudes is important because it is contrary to the findings of other authors. This may potentially be due to the situation in question, since eating in a restaurant is likely to be a social and public activity while staying in a hotel is not. However, it does point out the importance of having studies that specifically relate to the situation in question.

A number of other studies previously discussed have also found a significant role of subjective norms in green hotel decisions. For example, Chen and Tung (2014) found that subjective norms had a significant positive influence on the VI for green hotels in Taiwan, although attitudes had a stronger influence. Han and Kim (2010) found that subjective norms were a significant factor in behavioral intentions for green hotels, although the factor loading was lower than attitudes, perceived behavioral control or any of the other factors that were included in their extended model.

2.4.2.2 Hypothesis 3 and 4

In summary, most of the studies reviewed did support the role of subjective norms in green hotel behavior intention, including VI and WOMI; and WPM. The main source of confusion or disagreement within these studies was not whether

subjective norms were important, but whether they were stronger or weaker in the model than other factors than attitude. In almost all cases, it has been found that subjective norms was significant but somewhat weaker than attitude, and could be either stronger or weaker than additional variables in extended models. Therefore, based on the TPB and the empirical evidence from studies employing the TPB in green hotel and similar consumption contexts, Hypothesis 3 and 4 may be stated:

Hypothesis 3: Subjective norms will have a positive influence on behavior intention to green hotels (VI and WOMI).

Hypothesis 4: Subjective norms will have a positive influence on willingness to pay more (WPM).

2.4.3 Perceived behavioral control and behavior intention and willingness to pay more to green hotels

The fifth hypothesis concerns the relationship between perceived behavioral control and behavior intention to green hotels and the sixth hypothesis considers the relationship between perceived behavioral control and willingness to pay more to green hotels. In the TPB, perceived behavioral control has a theoretical positive relationship to both behavioral intention and actual behavior (Ajzen, 1991). In this research, since only behavioral intention (consumer response) is tested, the relationship between perceived behavioral control and actual behavior is not examined further.

Meta-analyses have demonstrated that the TPB is often one of the stronger influences on behavioral intention, although it does not have as strong a relationship to the actual behavior (Ajzen, 2011). Furthermore, perceived behavioral control was identified as the strongest influence on willingness to sacrifice (behavioral intention) in a cross-cultural study of general environmental behaviors (Oreg & Katz-Gerro, 2006). This general situation suggests that perceived behavioral control will have a significant influence, but it cannot be fully accepted because there is also conflicting evidence. Most of the studies that have used the TPB in connection to green hotels have shown that there is a positive, relatively strong relationship to the behavioral intention variables, consistent with the theory. However, not all studies had similar findings.

2.4.3.1 Positive findings

Han and Kim (2010) extended the TPB, using destination image, service quality, and customer satisfaction, to predict consumer response (revisit intention) in a sample of American green hotel guests. Their SEM process found a positive, significant relationship (0.134) between perceived behavioral control and revisit intention. While this was a positive relationship, it was among the weaker relationships tested in the extended model. This situation continued in testing the core TPB, where perceived behavioral control's relationship was positive and significant, but weaker than the relationship of attitude and subjective norms (Han & Kim, 2010). A similar study extended the TPB to include the role of environmentally friendly activities in the respondents' daily lives on behavioral intention (visit intention) (Han, et al., 2010). The authors found that perceived behavioral control did have a positive significant influence on VI, and that environmentally friendly activities did not make a difference. Once again, however, perceived behavioral control had a weaker influence on VI than either attitudes or subjective norms. These results are essentially consistent with the findings of Kun-Shan and Teng (2011), who studied green hotel visit intention in Taiwanese green hotels, extending the model based on past behavior. The authors found that perceived behavioral control was heavily influenced by past behavior, with the second highest path loading after attitude. It had a significant, positive relationship to VI (0.196), but this was the weakest relationship out of all four factors proposed on VI (Kun-Shan & Teng, 2011). Thus, while once again it was significant, it had the weakest relationship of the significant factors. Chen and Tung (2014), who studied the TPB in relation to Taiwanese green hotel guests (n = 559), also found that perceived behavioral control influenced VI, but that VI was not as strong a factor as the other TPB models or their extended framework variable of perceived moral obligation.

Han (2015) found that perceived behavioral control had the second strongest influence on behavioral intentions on green hotels of the original TPB models. This study did find that there was a stronger influence of the values-beliefs-norms factors, but it still validated the position of perceived behavioral control as a significant influence factor (Han, 2015). However, this research also found that perceived behavioral control was only significant in cases where the alternatives to green hotels

had low attractiveness (Han, 2015). This suggests that the influence of perceived behavioral control may not be stable depending on the consumer choice set and decision situation, although more detailed evidence on the alternative attractiveness of green hotels has not been found (Han, 2015). A similar position for perceived behavioral control was also found in Cheng, et al.'s (2006) study of negative WOMI for hotels. These authors found that perceived behavioral control was one of the stronger variables in this model. It is also notable that the situation this research studied – negative WOMI – is somewhat different from the remainder of the studies, which examined positive behaviors.

2.4.3.2 Non-significant or negative findings

One study had very weak relationships of perceived behavioral control and consumer responses to green hotels, with no significant relationship, in an examination of VI for eco-friendly restaurants (Kim, et al., 2013). The authors found that the path coefficient between perceived behavioral control and VI was only 0.05 in their proposed model and 0.04 in the standard model, and was significant in neither case. Thus, unlike attitudes and subjective norms, perceived behavioral control was not supported as a factor in the visit intention. However, this study provides relatively weak evidence because, as has been previously observed, the decision to visit an eco-friendly restaurant is to some extent a social decision, and therefore subjective norms may have more of an influence. In contrast, with few barriers to visiting any type of restaurant, it is likely that there would be a relatively low influence of perceived subjective norms. Thus, since this study is against the general trend of the research, it may not be as important.

2.4.3.3 Hypothesis 5 and 6

In summary, the influence of perceived behavioral control is perhaps the most conflicting of any of the core TPB variables. While there is some evidence of a positive relationship, consistent with the theoretical model, there is also evidence that this influence may be mixed or unstable depending on the decision context. Furthermore, some studies have found no significant relationship. Overall, the balance of the evidence suggests that there will be a positive relationship between perceived behavioral control and consumer responses, but that this relationship may be weaker

than those of either attitudes, and subjective norms or of extended research factors. Thus, while H5 and H6 are proposed as follows in line with the theoretical model, it is acknowledged that the actual relationship could be different.

Hypothesis 5: Consumers' perceived behavioral control will positively influence behavior intention to green hotels (VI and WOMI).

Hypothesis 6: Consumers' perceived behavioral control will positively influence willingness to pay more to green hotels (WPM).

2.4.4 Perceived value and behavior intention (BI) and willingness to pay more (WPM) to green hotels

There have not been previous studies that have explicitly incorporated perceived value into the TPB for green hotels. Nor could evidence be found for related areas of consumption such as green restaurants or other sustainable tourism activities. However, studies have demonstrated that poor perceptions of the hotel's utilitarian and hedonic value, especially compared to similar non-green hotels, can negatively influence the consumer decision. This relationship holds from the initial planning of the tourism experience to the on-site decision-making of consumers engaging in tourism (Budeanu, 2007). Budeanu (2007) suggests that lack of information about sustainable tourism choices like green hotels contributes to a potential perceived lack of utilitarian (and hedonic) value compared to alternatives. For example, accommodation choices are mainly driven by safety and quality, and there is little information about green hotel characteristics and choices (Budeanu, 2007). Thus, the consumer response to green hotels, particularly VI and initial WPM, may be influenced by this poor perceived value compared to better-known options. A review of studies shows potential evidence for the importance of both utilitarian and hedonic value in green hotel consumer response.

2.4.4.1 Evidence for utilitarian value influence on green hotel behavior intention and willingness to pay more

A study of American hotel consumers found that overall image of the hotel, which included both utilitarian and hedonic aspects of hotel functionality and comfort, had a significant, positive influence on VI, WPM and WOMI (Han, Hsu, & Lee, 2009). The authors did find that green attitudes influenced overall image, but did not completely mediate it; therefore, the functional attributes of the hotel particularly

continued to influence the consumer responses toward the hotel even for consumers with high environmental awareness (Han, et al., 2009). Another study identified specific utilitarian attributes that consumers preferred in green hotels, using a survey of visitors to a Las Vegas hotel convention (Millar & Baloglu, 2008). For example, positive attributes included in-room recycling and water-saving and energy-saving measures. However, refillable toiletry dispensers were not regarded positively. This could be because it provides a perceived poor value for money or because it impacts the hotel's hedonic value (Millar & Baloglu, 2008). This also contrasts with a study conducted in Hong Kong (Han & Chan, 2013), which could suggest a cultural preference difference. Another study suggests that there is an evolving preference for green hotel utilitarian attributes; for example, guests may now expect attributes like eco-cuisine and energy-saving measures, as well as use of email rather than paper for invoices and receipts (Ogbeide, 2012).

2.4.4.2 Evidence for hedonic value influence on green hotel behavior intention and willingness to pay more

Hotels are a category of consumption in which consumers to some extent a positive hedonic experience, including luxurious and comfortable surroundings (Tsai & Tsai, 2008). As Tsai and Tsai (2008) explain, the role of expected hedonic value for hotels could have a negative effect on the relationship between environmental ethics (attitudes) and behaviors, leading to consumers selecting hotels that offer a better hedonic experience even if they are not as environmentally friendly.

Hotels with high hedonic value (luxury hotels) that do use green practices can actually have increased WPM from consumers with high environmental awareness because of the interaction of hedonic value and environmental awareness (Kang, Stein, Heo, & Lee, 2012). These authors studied consumer WPM for green hotel attributes using a survey of American tourists in Hong Kong. They found that consumers in luxury hotels had higher WPM than those in economy hotel segments in general. Consumers in these segments with high environmental awareness had even higher WPM, which the authors attributed to a combination of high environmental awareness, high hedonic preference, and low price sensitivity (Kang, et al., 2012). They suggested that the influence was actually stronger than that of utilitarian value, which

does not entail a sense of moral obligation to offset the environmental cost of additional provision (Kang, et al., 2012).

A second study used economic modeling to estimate the WPM for green hotels compared to non-green hotels in Virginia (USA) (Kuminoff, Zhang, & Rudi, 2010). These authors' approach was different from other researchers, but it is still an interesting study because it provided an estimate of how much consumers were WTP for a green hotel. They found that while the rates varied depending on the specific green attributes included, all of which reflected the hedonic value of the hotel. (For example, it included linen reuse, water saving, pool, workout area, and several other green hotel attributes.) The authors found that some attributes, including smoke-free, hot tub, business center, and dogs allowed, actually decreased WPM for the green hotel. On average, however, there was a positive WPM of $9 to $27, depending on the number of hedonic attributes included (Kuminoff, et al., 2010). This study provides some of the strongest evidence that the green hotel's hedonic value directly influences WPM.

A study in green restaurants also points out that hedonic value is important (Schubert, Kandampully, Solnet, & Kralj, 2010). Specifically, authors find that while consumers are attracted to the environmental benefits of green hotels, they are not comfortable with sacrificing features like food taste and variety, food quality, or food freshness for environmental benefit, even if they have high levels of environmental awareness (Schubert, et al., 2010). Thus, restaurants (and by extension hotels) are expected to maintain a particular level of hedonic value, even if they can make credible green claims. However, a restaurant of equal quality could, the authors noted, gain a competitive advantage if they could make green claims while remaining equal or higher in hedonic value (Schubert, et al., 2010).

2.4.4.3 Hypothesis 7 and 8

As discussed above, although no previous authors have explicitly incorporated utilitarian and hedonic value perceptions into their TPB model for green hotels, there is evidence that these value perceptions will influence behavior intention and willingness to pay more. Specifically, consumers have poorer perceptions of green hotels that are less useful or offer a relatively poorer experience than non-green alternatives. This in turn negatively influences consumers' visit intentions and

willingness to pay more, although word of mouth intentions are less well-studied. Hypothesis 7 and 8 are one of the main contributions of this research in terms of originality and value. The last two final hypothesis states:

Hypothesis 7: Consumers' perceived value will have a positive influence on behavior intention to green hotels (VI and WOMI).

Hypothesis 8: Consumers' perceived value will have a positive influence on wiliness to pay more to green hotels (WPM).

CHAPTER 3
RESEARCH METHODOLOGY

This chapter presents the methodology and explains the methods selected for the study. The difference between these two concepts is that while the methodology is the overall philosophical approach and research design, the methods of the study are the specific operational choices selected to enact the methodology (Zikmund, Babin, Carr, & Griffin, 2013). The methodology of this research is based in positivist, descriptive, quantitative research. The methods used include data collection via a questionnaire and statistical analysis. The discussion in this chapter is meant to both describe the research choices made, particularly for the primary research, and to critique and reflect on what these findings imply for the study.

The first three sections of the chapter address issues of methodology, including the research philosophy, research design and research strategy. The concerns of the chapter then turn to the methodological choices made for the study. This discussion includes for example the population of the study and the sampling technique; the data collection process; the research instrument designed for the study; and the data analysis techniques and process. The final two sections place the research methodology and methods by reflecting on their limitations and ethical implications of the study.

3.1 Research Philosophy

The choice of a research philosophy, or set of philosophical maxims or assumptions that explain the researcher's beliefs about the role of the study, depends on the research questions and situation (Saunders, Lewis, & Thornhill, 2015). For this research, the main purpose of the study was to generally describe and explain the phenomenon of consumer response toward green hotels in a broad population, rather than to explore in-depth the subjective explanation of these responses. This meant that realism was an appropriate research philosophy (Saunders, et al., 2015). Realism is an adaptation of positivism (the philosophy of the scientific method) for social research. Its ontology establishes that there is an objective and concrete reality, and its epistemology continues to state that the best approach to learning about this reality (gaining

knowledge) is for neutral observers to conduct systematic, standardized research (Saunders, et al., 2015). However, its position on axiology (human values) is softened, since it acknowledges the imprecision of measuring human concepts and perceptions; instead, it argues that humans observe within bounded rationality (Saunders, et al., 2015). Thus, realism is ideal for measuring social phenomena such as in this study objectively, while acknowledging that human instrumentation and observation are imperfect.

3.2 Research Design

Research designs can be characterized as reporting (exploratory), descriptive, explanatory, and predictive, depending on the research questions and the current state of the research (Cooper & Schindler, 2014). As Chapter 2 explained, there are potential explanatory relationships that could be pursued within this study, and the research questions and hypotheses are designed to test relationships between variables. The methodology was divided into the quantitative (survey) and qualitative (in – depth interview) research.

3.3 Research Strategy

The research strategy is the general approach to the research, including the type of data collected and the analytical approaches (Saunders, et al., 2015). The research strategy needs to be selected based on considerations of other aspects of the research methodology as well as the research questions and objectives. Thus, there is no one “right” research strategy; instead, different research strategies are used for different types of inquiry (Saunders, et al., 2015). This study’s objectives are focused on explaining relationships between different types of attitudes and the consumer response variables for green hotels. This is the basis for the choice of explanatory research. It is also the reason why mixed methods research is the most appropriate choice for this study. Mixed methods strategies combine quantitative research, which uses standardized data collection and statistical and numeric analysis techniques to perform tasks like counting and description or identification of relationships in a general population, and qualitative research, which uses non-standardized techniques to explain

relationships and provide context (Bryman & Bell, 2015). This study draws on the strength of quantitative research (which are typically faster in terms of data collection and analysis, although the researcher must prepare carefully (Cooper & Schindler, 2014)) and qualitative research (which is ideal for explaining relationships derived from quantitative research (Cooper & Schindler, 2014)). Mixed methods strategies do have weaknesses, including a potential for lack of clarity and consistency in mixed methods designs (Saunders, et al., 2015). These weaknesses meant that care had to be taken in the research design, but mixed methods was still the best choice for this study.

3.4 Quantitative Method

For quantitative of this study, a convenience sampling technique was used to select a sample of at least 400 hotel consumers. The target population, sample size calculation and sampling technique are explained below.

3.4.1 Target population

The population of interest was Thai hotel consumers. There were two sampling frames selected for the study. The first was an age-based frame, limiting the population to adults (18+ years of age). This frame was selected for ethical reasons, since research on children requires heightened scrutiny and children cannot give informed consent to research (Bryman & Bell, 2015). The other frame is that consumers have had to stay overnight at the green hotel. Thus, the target group is a Thai consumer who has been staying in a green hotel (18 years and over).

3.4.2 Sample size calculation

The size of the target population is not precisely known, but the most recent figures (2007) indicate that there were about 83 million in-country travel trips (Vanhalewyk, 2016). Given the growth rate in travel spending and the 30% travel spending share of the Thai market (World Travel and Tourism Council, 2015). Regarding the sample size, several previous studies suggested two assumptions for a research sample size (Hair, Black, Babin, & Anderson, 2009; Hair, Black, Babin, Anderson, & Tatham, 2009). These were guided by conceptual and practical considerations suggesting that an adequate sample size can be obtained for the number of variables to be examined. Generally, the minimum sample size should be at least five

times of the number of observed variables to be analyzed, and the more acceptable sample size would be a 20:1 ratio. Due to this theory, the study initially targeted the population with approximately 400 sampling.

3.4.3 Sampling technique

Sampling in hospitality and tourism studies does have particular challenges, because the population may be transient and its characteristics may change over time or even seasonally (Altinay, Paraskevas, & Jang, 2015). Furthermore, there is rarely a central list or register that could be used to produce a truly random sample (Altinay, et al., 2015). Instead, non-probability techniques like convenience sampling are frequently used, since these techniques offer ease of sample selection and allow the researcher to accommodate ethical considerations (Altinay, et al., 2015). Convenience sampling is used in this study because of these benefits. However, the researcher has tried to mitigate the negative effects of convenience sampling. The questionnaire was distributed in the area near by green hotels such and tourist places around the country. Moreover, the quota sampling technique was used to identify the number of sample in each region. This number was calculated based on the numbers of green hotels in each region (Table 3.1).

Table 3.1 The Population and Distribution of Sample Size

Region	**Number of hotels registered at Green leaf foundation**	**Sample**
South	96	175
Central	65	119
East	21	38
West	15	27
North	13	24
Northeast	9	16
Total	219	400

3.4.4 Research Instrument

The questionnaire was used for collecting data for quantitative. The aim of questionnaire was to understand consumer's attitude and behavior toward a green hotel and to investigate the impact of an extended TPB on consumer response toward a green hotel. An extended TPB developed for the purpose of this study includes green attitude, subjective norms, perceived behavioral control and perceived hedonic and utilitarian values. Consumer response toward a green hotel focuses on three behavioral aspects including visit intention, willingness to pay more and word of mouth.

The questionnaire consists of four parts. The first part gathers demographic information of the respondents such as age, gender, education level, personal income and marital status. The second part asks about consumer behavior in hotel sector such as frequency of traveling per year, companion for traveling, information channels about a green hotel and willingness to stay at a green hotel. The third and fourth parts ask questions related to all variables of an extended TPB and consumer response toward a green hotel mentioned above. The questions used in these parts were adopted from previous studies that investigated consumer behavior in a green hotel, which include Han, et al. (2009), Han, et al. (2010), Han and Chan (2013). Seven-point Likert scale (1=strongly disagree 2=disagree 3= somewhat disagree 4= neither agree nor disagree 5= somewhat agree 6= agree 7= strongly agree) was used for these questions because it is a scale that is commonly used in a study of attitude and behavior toward a green hotel (Choi, et al., 2015; Han & Chan, 2013).

3.4.5 Data Analysis

Data analysis began with descriptive analysis. Descriptive statistics are elementary statistical analyses of a single variable, which are intended to describe characteristics of that variable like its mean, standard deviation, or frequency distribution among different categories (Holcomb, 2016). The information that can be derived from descriptive statistics about a population is limited, but they do provide useful information about the sample, allowing it to be compared to the population and described accurately (Holcomb, 2016). In this research, frequency distributions was used to describe categorical data, including personal data (demographics), consumer behavior toward the green hotel, and perceptions of green hotels. The Likert scale

variables (attitudes and consumer responses) were described using mean and standard deviation, which describes the central tendency and variation of an interval or continuous numeric variable (Holcomb, 2016).

3.4.5.1 Reliability Analysis

The researchers used questionnaires to research the past. And the questionnaire is in English. To check the validity of the questionnaire is used to back translate by the experts from the Institute and Professor, Department of Marketing is translated questionnaire. Reliability is defined as the extent to which a questionnaire, test, observation or any measurement procedure produces the same results on repeated trials (Cooper & Schindler, 2003). There are three aspects of reliability which are equivalence, stability, and internal consistency. The internal consistency reliability is related to the extent to which items on the test or instrument are measuring the same thing. If the individual items are highly correlated with each other, the researcher could be confident that the instrument has high reliability of the entire scale. Therefore, the internal consistency reliability was used to measure the reliability of this study. The instrument used for the study contained 7-point Likert scales. Thus the coefficient alpha (Cronbach, 1951) was applied. The Cronbach's alpha refers to the extent to which the items in a test measure the same construct (Ho, 2006). The value above 0.70 is generally accepted (Nunnally, 1978; Fornell & Larcker, 1981; O'Leary-Kelly &Vokurka, 1998). Internal consistency for most of the scales was above the required threshold of $\alpha > 0.7$. The scales that passed this threshold included attitude toward green hotels ($\alpha = 0.863$), perceived behavioral control ($\alpha = 0.802$), perceived value ($\alpha = 0.888$), behavioral intention ($\alpha = 0.849$), and willingness to pay more ($\alpha = 0.858$). These scales were not adjusted based on the alpha coefficient. There was one problematic scale, which was subjective norms ($\alpha = 0.475$), which fell substantially below the required threshold. If the research were only using the alpha coefficient to assess internal consistency reliability, at this point the appropriate path would be to examine inter-item correlations for that scale and remove poorly correlated items until internal consistency rose to an acceptable level. However, given that the research model was going to be refined through the SEM process and items could be eliminated at that stage as appropriate, the choice was made to continue the analysis with the original

variables. This would allow for the best opportunity to adapt the scales to meet the reliability requirements, rather than removing items with poor correlation that could be associated with a different scale, which would be detected during the SEM process.

3.4.5.2 Structure Equation Model (SEM)

Wright (1921) defined that SEM is a statistical technique for testing and estimating causal relations using a combination of statistical data and qualitative causal assumptions (Wright, 1921). Byrne (2010) further defined that SEM is a statistical methodology that takes a confirmatory approach such as hypothesis-testing to the analysis of a structural theory bearing on some phenomenon.

The following indices were used to check the consistency of the model with empirical data.

1. Chi-square (χ^2) or CMIN is the commonly used statistical test in order to check if the harmony is significant. To indicate that the model is consistent with empirical data merging, the chi-square or CMIN must have $p > 0.05$ (Diamantopoulos & Siguaw, 2000).

2. χ^2/df or CMIN/df is used in order to indicate the model's harmony with empirical data. The value of less than 2.00 indicates that the model is in harmony with the empirical data (Bollen, 1989).

3. Root Mean Square Residual (RMR) represents the averge residual value derived from the fitting of the variance – covariancematrix for the hypothesized model ($\sum$) to the variance – covariancematrix of sample data. RMR should be consistent with value of less than 0.08 (Browne & Cudeck, 1993).

4. Comparative Fit Index (CFI) belongs to a class of fit statistics known as incremental or comparative fit indices, which are among the most widely used in SEM and can assess the relative improvement in harmony with the researcher's model compared with a baseline model. CFI should be consistent with values up to 0.90 (Diamantopoulos & Siguaw, 2000).

5. Goodness of Fit Index (GFI) is used for checking the consistency and should be 0.80 or above (Sharma, 1996).

6. Adjusted Goodness of Fit Index (AGFI) is considered consistent when it is 0.80 or above (Sharma, 1996).

7. Normed Fit Index (NFI) is considered consistent when it is 0.80 or above (Hu & Bentler, 1999).

8. Root Mean Square Error of Approximation (RMSEA) is considered good fit when it is less than 0.50 and considered reasonable fit when between 0.05 and 0.08 (Browne & Cudeck, 1993; MacCullum, Browne, & Sugawara, 1996).

9. Hoelter is the acceptable minimum sample size which indicates that expected models are in harmony with the empirical data. The Hoelter with the value of greater than 200 indicates that a sample size is large enough for analysis (Hoelter, 1983).

This study examined the conditions for normal distribution by checking the skewness and kurtosis values. Curran, West and Finch (1996) suggested that if the absolute value of the skewness index is more than 3, this means that the data is asymmetric or does not have a normal distribution. If the absolute value of the kurtosis index is more than 10, it indicates that the variable is normally distributed. In addition, the significance at 0.1 level, p-value was less than 0.1; the significance at 0.05 level, p-value was less than 0.05; the significance at 0.01 level, p-value was less than 0.01; and the significance at 0.001 level, p-value was less than 0.001 (Arbuckle, 2011).

3.5 Qualitative Method

This study was a quantitative-led mixed methods study, which means that the qualitative research was conducted after the quantitative research and used to support and explain the quantitative findings (Creswell & Plano Clark, 2011). The focus of the qualitative research was explaining consumer intentions and perceptions for green hotels in Thailand, expanding on the quantitative study's findings. This section explains the way in which the quantitative research was conducted.

3.5.1 Target population

The target population of the qualitative research was Thai consumers (age 18 and over) who have experience staying in a green hotel at least once. This target population is the same as the target population of the quantitative research stream. This was an intentional choice, since the goal of the qualitative study was to provide more detailed information about the quantitative findings.

3.5.2 Sample size

Sample size for qualitative research is not determined by the population size or need for representation, but instead depends on the depth of information derived from each informant or observation and the amount of information required (Merriam & Tisdell, 2016). Furthermore, since qualitative research requires far more time to collect information from each informant than quantitative research, the sample size for qualitative research is typically smaller (Hennink, et al., 2011). The sample size for this study was n = 5 Thai consumers within the specified target group. This small sample size was selected because this allowed the researcher to focus more on individual responses, conducting longer interviews and deriving more information from each interview. While this sample size is small, it is within the range of a typical small-scale qualitative research study or qualitative portion of a quantitative mixed methods study, which may range between two and ten participants (Creswell & Plano Clark, 2011; Merriam & Tisdell, 2016).

3.5.3 Sampling technique

Purposive sampling was used to select the participants in the qualitative interviews. In purposive sampling (sometimes called purposeful sampling), the researcher selects the participants because they are known to meet certain characteristics (Merriam & Tisdell, 2016). Purposive sampling is not best practice in quantitative research, where the use of the method can result in researcher and respondent bias that compromises the results (Creswell & Plano Clark, 2011). However, it is commonly used in qualitative research, because the high commitment of time resources for both researcher and participants requires that the participants will have relevant information for the survey (Merriam & Tisdell, 2016). Participants were selected from the participants that were included in the quantitative research, based on a post-survey recruitment question. The researcher selected the five participants from these participants based on their agreement to participate in the qualitative survey, based on several criteria including experience in green hotels within the past year and willingness to participate. This ensured that the participants would have up-to-date experience with green hotels in Thailand.

3.5.4 Research instrument and data collection

Data was collected from participants using face-to-face semi-structured interviews. Semi-structured interviews use an interview guide, with questions typically selected from the literature or based on the specific questions of the research (Galletta, 2013). However, semi-structured interviews do not require that the researcher or participants stick strictly to this interview guide, but instead are free to explore, challenge, and discuss other areas at will (Galletta, 2013). The semi-structured interview approach is ideal for this research because it provides efficiency compared to other methods of interviewing like three-stage life history interviewing (Seidman, 2013). Semi-structured interviews also retain flexibility, unlike structured or guided interviews, which means that they can providing surprising and novel information for the researcher (Galletta, 2013). Thus, the semi-structured interview approach was ideal for this research, which required both detailed information and efficiency for the researcher and the participants.

The interview guide was developed based on prior research and the research questions. There were three main areas of concern. First, basic demographic information was collected, so that the participant group could be described and compared to the quantitative sample. Their consumer behavior related to hotels, including green hotels, was then discussed. The bulk of the interview addressed consumer attitudes toward environmental issues and toward green hotels, which was the most important question since this was the information that would explain the quantitative results. The interview guide is attached in the appendix.

Interviews were conducted face-to-face, because this is the best way to collect non-verbal information and establish rapport with participants (Seidman, 2013). The interviews were conducted at a place of the participant's choice in and around Bangkok. The interviews, which took between one and one and a half hours each, were voice recorded. The researcher also took notes about key responses and other relevant information such as non-verbal communication and divergence from the interview guides. Following all five interviews, the voice recordings were transcribed for analysis.

3.5.5 Data analysis

The data analysis technique chosen for the interviews was qualitative content analysis (QCA). QCA is a flexible analytical technique that systematically extracts and explains meaning from the content of narratives, texts, or images (Schreier, 2012). QCA, unlike quantitative content analysis, does not rely on counting of repetitions of specific words, phrases or other units of meaning. Instead, it is an interpretive technique that extracts meaning from these phrases (Schreier, 2012). QCA is an ideal approach for small studies, because it provides meaningful information from a relatively small group, and can also be used to compare information between different groups of participants (Schreier, 2012). QCA was chosen rather than alternatives like thematic analysis because it was a better way to extract shared meaning from the small number of interview participants, being dependent on the meaning of responses rather than on shared wording. The QCA approach also helped to more directly target the responses that would help to explain the quantitative findings than thematic analysis, which is a broader and more general approach. Thus, this was overall a more effective approach for the intended study.

The QCA approach includes several steps that take place consistently throughout each round of analysis. These steps include:

"1) deciding on your research question; 2) selecting your material; 3) building a coding frame; 4) dividing your material into units of coding; 5) trying out your coding frame; 6) evaluating and modifying your coding frame; 7) main analysis; [and] 8) interpreting and presenting your findings (Schreier, 2012, p. 6)."

The QCA process was conducted by hand, using interview transcripts and notes. The research question and material were determined during the process of the full research design. The qualitative analysis began with establishing the coding frame, which includes "main categories (dimensions) specifying relevant aspects of the material and a set of subcategories for each main category specifying the meaning of the material with respect to the main research categories (Schreier, 2012, p. 63)." The purpose of the coding frame is to reduce the complexity of the rich data available from the interviews and direct the analysis toward answering the research question. The coding frame was initially based on the literature review and the quantitative findings.

To try out the coding frame, a random choice of two interview transcripts was coded using first open coding (which codes different units of meaning and information) and then axial coding (which is focused on the research questions). The coding frame was modified to include some new categories that were not evident from the literature review, and to eliminate some categories that did not appear to be relevant. The main analysis consisted of repeating analysis of all five interviews using the adjusted coding frame. The interpretation and presentation of the findings was based on a narrative discussion of each of the main categories or dimensions that were identified during the interview process. The presentation included a combination of a general summary of the main category and its meaning and illustrative narrative extracts from the interview transcripts.

3.6 Research Limitations

Every research study has limitations and issues imposed by the methodology and set of methods of the study, that must be at least acknowledged or preferably mitigated through careful study design and implementation (Weathington, Cunningham, & Pittenger, 2012). One of the limitations of this study is that it is cross-sectional, meaning that data is gathered one time and represents a so-called snapshot of the research situation (Saunders, et al., 2015). The alternative longitudinal design would provide information about change, but was infeasible given the limitations of the study. Since this limitation could not be avoided, this research should be considered one in a series of studies on consumer response to green hotels, which could reflect the changing situation over time. Another research limitation is the use of a realist, quantitative methodology. While this methodology was appropriate for the research situation, it does have some limitations such as inability to reflect surprising information or new factors (Weathington, et al., 2015). This limitation cannot be avoided entirely, but the researcher has taken care to conduct a thorough study of the literature and broaden the basic theoretical framework of the TPB in order to compensate for this limitation. A third limitation is that the researcher cannot select a fully representative sample, since characteristics of Thai green hotel guests are unknown. This could potentially limit the generalization of the findings to a broader population (Zikmund, et al., 2013). In order

to compensate for this limitation, the research collects demographic information to describe the sample. This approach will at least enable the researcher to describe the demographics of the population that was selected, which can then be compared to more general demographics (Cooper & Schindler, 2014).

3.7 Ethical Considerations

Because this research takes place in a human population, there are ethical considerations related to the conduct and use of the study information that need to be considered. Bryman and Bell (2015) identify four key principles of ethics in human-involved business research, including avoiding participant harm, avoiding invasion of privacy, careful use or avoidance of deception, and assurance of informed consent. In accordance with these principles, the questionnaire was kept as short as possible and was conducted anonymously, in order to avoid accidental disclosure of even seemingly harmless information about participants. Participant characteristics like demographics are reported only in the aggregate and are not associated directly with any responses. The researcher fully informed participants about the purpose of the study and did not use deception, but instead disclosed all relevant information including researcher and supervisor contact information. There is also a need to consider the broader use of the study findings and the ethical issues that could emerge (Bryman & Bell, 2015). While the researcher cannot prevent the findings of this study being used unethically, part of the process of the research was to reflect critically on the meaning of the findings for both guests and properties. The researcher hopes that users of these findings will similarly engage in critical reflection to prevent harm resulting.

CHAPTER 4
RESEARCH RESULT

4.1 Introduction

This chapter presents the findings of the mixed methods research process, which was explained in the chapter above. As the study was a quantitative-led study, the chapter begins with presentation of the quantitative results. Quantitative results included demographic data, hotel consumer behavior, descriptive statistics for each of the eight scales included in the model, and the structural equation modelling (SEM) outcomes. The next section presents the findings of the qualitative research, which included a brief overview of demographic information and consumer behavior related to hotels, followed by the review of the consumer's attitudes to the environment and to green hotels. These results are compared briefly to the outcomes of the quantitative research so that they can explain the outcomes and provide more detailed information about consumer attitudes and preferences. These results support the discussion and conclusion presented in the next chapter.

4.2 Quantitative Results

4.2.1 Demographic data

Demographic data was collected from each of the participants in the quantitative survey (n = 385 consumers). Demographic information included gender, age, education, income per month, and marital status. In some cases, the demographic data can be compared to the Thai population, to explain how representative the sample is, although there are no detailed studies of Thai green hotel visitors that could be used to compare demographics to. This information is summarized in Table 4.1.

Table 4.1 Summary of demographic information

Demographic data	Frequency	Percentage
Gender		
Male	186	48.30
Female	199	51.70
Age		
18-25 years	61	15.80
26-33 years	161	41.80
34-41 years	129	33.50
More than 41 years	34	8.80
Education		
Diploma	3	0.80
Bachelor Degree	126	32.70
Higher than Bachelor Degree	256	66.50
Income per month		
Less than 10,000 baht	51	13.20
10,000-30,000 baht	69	17.90
30,001-50,000 baht	153	39.70
50,001-70,000 baht	109	28.30
70,001-90,000 baht	3	0.80
Marital status		
Single	147	38.20
Married/Couple	202	52.50
Divorce	36	9.40

4.2.1.1 Gender

The first demographic factor that was examined was gender. The respondents included 186 male respondents (48.3%) and 199 female respondents (51.7%). This represents a sex ratio of 0.935 males/females, which is somewhat lower than the sex ratio of 0.966 males/females in Thailand's population (Country Meters, 2016). This suggests that there are a slightly larger number of females in the sample

than would be expected, although given that the sex ratio in Thailand does vary widely by age (Country Meters, 2016) this could be due to the age of the sample.

4.2.1.2 Age

The second demographic factor studied was age. Within the sample, there were 61 participants aged 18 to 25 years (15.8%), 161 participants aged 26 to 33 years (41.8%), 129 participants aged 34 to 41 years (33.5%) and 34 participants aged older than 41 years (8.8%). This distribution shows that most of the participants are aged between 26 and 41, indicating a middle adult aged population. This is not representative of the Thai population, but it could result from increased incomes and environmental concern within this age group compared to older and younger consumers.

4.2.1.3 Education

The third demographic factor studied was education level. The sample was relatively highly educated, with only 3 participants (0.8%) having a diploma. A total of 126 participants had a Bachelor degree (32.7%), while 256 participants had higher than a Bachelor degree (66.5%). This is higher than Thailand's general population, where 53% of the population enrolls in tertiary education (UNESCO, 2016). This finding suggests that green hotel consumers in Thailand are much more educated than the general population, and in particular are much more likely to have an advanced degree.

4.2.1.4 Income per month

The fourth demographic factor that was studied was income. Thai incomes are typically reported in baht per month, which cannot be compared directly to other studies because of exchange rates and cost of income differences, but they can be compared to Thai incomes generally. For consumer incomes, 51 consumers (13.2%) had income of less than 10,000 baht per month, while 69 consumers (17.9%) had income of 10,000 to 30,000 baht per month. A further 153 consumers (39.7%) had income of 30,001 to 50,000 baht per month. 109 consumers (28.3%) had income of 50,001 to 70,000 baht per month, and 3 consumers (0.8%) had income of 70,001 to 90,000 baht per month. The average monthly income in Thailand is 13,415.67 baht per month (National Statistical Office of Thailand, 2017). Thus, most participants had

income above the national average for Thailand, indicating that green hotel consumers are wealthier than average.

4.2.1.5 Marital status

The fifth demographic factor was marital status. In terms of marital status, 147 participants (38.2%) were single, while 202 participants (52.5%) were married or in long-term committed relationships and 36 participants (9.4%) were divorced.

4.2.2 Hotel consumer behavior

Participants were asked several questions about hotel consumer behavior, which was intended to explain consumer trends and the experience of hotels and green hotels within the sample. These responses can be compared to the qualitative findings, and also offer information about the consumer's actual travel habits and use of green hotels. Responses are summarized in Table 4.2, and discussed in the sections below.

Table 4.2 Summary of consumer behavior toward hotels

Hotel consumer behaviour	**Frequency**	**Percentage**
How many times do you usually travel within the country per year?		
1 time	10	2.6
2-3 times	149	38.7
4-5 times	184	47.8
More than 5 times	42	10.9
Who do you usually go to travel within the country with?		
Friend/Colleague	77	20.0
Partner	73	19.0
Family	235	61.0
How much are you willing to pay per night when travelling domestically?		
Less than 3,000 baht	65	16.9
3,000-5,000 baht	95	24.7
5,001-7,000 baht	150	39.0
7,001-9,000 baht	42	10.9
More than 9,000 baht	33	8.6

Table 4.2 Summary of consumer behavior toward hotels (Cont.)

Hotel consumer behaviour	Frequency	Percentage
Where do you receive information about a green hotel?		
Friend and family	331	86.0
TV and Radio	1	0.3
Where do you receive information about a green hotel? (cont.)		
Magazine	0	0.0
Hotel website	205	53.2
Social media such as Facebook, Instagram	272	70.6
Green leaf foundation	0	0.0
Online travelling websites such as TripAdvisor, Agoda or Booking.com	137	35.6

4.2.2.1 Frequency of domestic travel

Participants in the study were relatively frequent domestic travelers. Only ten participants (2.6%) travel once a year, while 149 participants (38.7%) travel two to three times. The largest group, including 184 participants (47.8%), travel four to five times a year. Finally, 42 participants (10.9%) travel more than five times a year.

4.2.2.2 Preferred travel partners

Participants were also asked who they typically travel with for domestic travel. 77 participants (20%) typically travelled with friends and colleagues, while 73 participants (19%) travelled with partners. The largest group, including 235 participants (61%), travelled with their family.

4.2.2.3 Willingness to pay for domestic hotels

Participants were asked how much they were willing to pay per night when travelling domestically. 65 participants (16.9%) were willing to pay under 3,000 baht per night, while 95 participants (24.7%) were willing to pay 3,000 to 5,000 baht per night. 150 participants (39%) were willing to pay 5,001 to 7,000 baht, comprising the largest group. A total of 42 participants (10.9%) were willing to pay 7,001 to 9,000 baht, and finally 33 participants (8.6%) were willing to pay more than 9,000 baht. Thus, we can say that about four out of five participants (80.5%) were willing to pay 7,000 baht a night or less, while one out of five participants (19.5%) were willing to pay more than 7,000 baht a night.

4.2.2.4 Information sources about green hotels

Finally, participants were asked an open question about information sources about green hotels. Participants were able to choose as many sources as they typically used, and were not limited to a single response. They chose an average of 2.46 information sources each. The largest group of participants, including 331 members (86%), relied on friends and family for information about green hotels. Other common sources of information were social media (272 participants or 70.6%), hotel websites (205 participants or 53.2%) and online travel websites (137 participants or 35.6%). In contrast, only one respondent (0.3%) relied on television and radio, and no one selected magazines or the Green Leaf Foundation. Thus, friends and family and online websites including the hotel website, social media, and travel websites were by far the most important sources of information about green hotels.

4.2.3 Descriptive statistics

Descriptive statistics have been prepared for the independent and dependent variables in the research model. Independent variables included attitude toward green hotels, subjective norms, perceived behavioral control, and perceived values (hedonic value and utilitarian value). The dependent variables included visit intention, word of mouth intention, and willingness to pay more for green hotels. Scales ranged between three and eight items. A seven-point Likert scale was used in the survey, with the following responses: 1 = strongly disagree; 2 = disagree; 3 = somewhat disagree; 4 = neither agree nor disagree; 5 = somewhat agree; 6 = agree; and 7 = strongly agree. Descriptive statistics that were calculated for each of the items included minimum, maximum, mean, standard deviation (SD), skewness, and kurtosis. Each of the scales is evaluated below. The evaluations are based on the highest and lowest means, along with indicators of suitability of the distribution of the variable for use in SEM. Normal distribution is determined based on skewness and kurtosis values between -3 and 3 (Curran, et al., 1996; Hair, Anderson, Black, & Babin, 2016). The SD to mean ratio is also evaluated, since SD more than ten times the mean (indicating extreme variation in the distribution) can make a variable unsuitable for SEM (Kline, 2011). All items showed variation, kurtosis, and skewness characteristics that were compatible with SEM, and therefore the analysis could continue.

4.2.3.1 Attitude toward green hotels

The first scale related to consumer attitudes to green hotels (Table 4.3). The item means ranged from 5.79 to 5.96, indicating that on average consumers somewhat agreed to agreed with the items. The minimum values of 4 for all items indicated that none of the participants disagreed with the items. The item that participants most agreed with was “Packaged food or paper companies are concerned about the environment” (M = 5.96, SD = 0.920). The least agreed with item was “Recycling is important to save natural resources” (M = 5.79, SD = 0.833).

All of the standard deviations fell within the range established by Kline (2011) as acceptable for SEM. The skewness of the individual items ranged from -0.167 to 0.229, which indicates that the distributions are close to symmetrical and within the acceptable range for normal distributions (Hair, et al., 2016). The kurtosis of the items was all negative, ranging from -1.470 to -1.020, indicating that the distributions are platykurtic or fatter than the normal distribution (Hair, et al., 2016). However, these distributions are still within the range for a normal distribution. Therefore, the attitude toward green hotels scale is acceptable for use with SEM.

Table 4.3 Descriptive statistics: Attitude toward green hotels

	Minimum	Maximum	Mean	SD.	Skewness	Kurtosis
1. Recycling will reduce pollution.	4	7	5.91	.903	-.167	-1.125
2. Recycling is important to save natural resources.	4	7	5.79	.833	.118	-1.020
3. Hospitality operations (e.g., hotels and restaurants) are concerned about the environment.	4	7	5.81	.905	.229	-1.470
4. Packaged food or paper companies are concerned about the environment.	4	7	5.96	.920	-.139	-1.374

4.2.3.2 Subjective norms

The second scale related to subjective norms (Table 4.4). The range of responses for the three items in this scale was 5.08 to 5.44, indicating that participants generally somewhat agreed with the statements. The minimum for all responses (Min = 4) indicated that none of the participants disagreed outright. The most agreed with item was “most people who are important to me would want me to stay at a green hotel when travelling” (M = 5.44, SD = 0.712). The least agreed with item was “most people who are important to me think I should stay at a green hotel when traveling” (M = 5.08, SD = 0.537).

The standard deviations of these items range from 0.537 to 0.712, indicating that it is not out of range for Kline’s (2016) standard for variation in SEM. The skewness of the items ranged from 0.034 to 0.779, indicating that the distributions are close to normal and all fall within the range of -3 to 3 for a normal distribution (Hair, et al., 2016). The kurtosis of the items ranges from -0.240 to 1.057, which also indicates normal distributions. Thus, the subjective norms scale is acceptably within the range of normal distribution for the SEM process.

Table 4.4 Descriptive statistics: Subjective norms

	Minimum	Maximum	Mean	SD.	Skewness	Kurtosis
1. Most people who are important to me think I should stay at a green hotel when traveling.	4	7	5.08	.537	.267	1.057
2. Most people who are important to me would want me to stay at a green hotel when traveling.	4	7	5.44	.712	.034	-.240
3. People whose opinions I value would prefer that I stay at a green hotel when traveling.	4	7	5.28	.702	.779	.663

4.2.3.3 Perceived behavioral control

The third attitudinal variable was perceived behavioral control (Table 4.5). The means of these items ranged from 5.34 to 5.71, indicating that participants

somewhat agreed to agreed with the statements on average. The minimum of 4 shows that no one disagreed with the items. The highest scoring item was “I have enough time and opportunities to stay at a green hotel when travelling” (M = 5.71, SD = 0.737). The two other items had the same score, including “Whether or not I stay at a green hotel is completely up to me” (M = 5.34, SD = 0.512) and “I am confident that if I Want, I can stay at a green hotel when travelling” (M = 5.34, SD = 0.5350).

The standard deviations ranged from 0.512 to 0.737, falling within the ten times metric provided by Kline (2011). The skewness of items ranged from -0.080 to 0.718, showing that items were within the range of skewness of a close to normal distribution (-3 to 3) (Hair, et al., 2016). The kurtosis of the items ranged from -0.446 to -0.322, indicating that the distributions were slightly platykurtic (flatter than a normal distribution) (Hair, et al., 2016). However, they were all within the range of -3 to 3. Thus, this variable’s distribution was compatible with the SEM process.

Table 4.5 Descriptive statistics: Perceived behavioral control

	Minimum	Maximum	Mean	SD.	Skewness	Kurtosis
1. Whether or not I stay at a green hotel is completely up to me.	4	7	5.34	.512	.718	-.446
2. I am confident that if I want, I can stay at a green hotel when travelling.	4	7	5.34	.535	.585	-.162
3. I have enough, time, and opportunities to stay at a green hotel when traveling.	4	7	5.71	.737	-.080	-.322

4.2.3.4 Hedonic value

The fourth scale was hedonic value (Table 4.6). These items ranged in means from 5.23 to 5.81, indicating that participants somewhat agreed to agreed with the statements on average. The minimum for all items (4) indicates that none of the participants disagreed with the statements. The highest scoring item was that the green hotel “is stylish” (M = 5.81, SD = 0.600). The lowest scoring item is that the green hotel “has a good reputation” (M = 5.32, SD = 0.558).

The standard deviations ranged from SD = 0.559 to 0.651, which fell within the range given by Kline (2011) for acceptance in SEM. Skewness for the items ranged from -0.620 to 0.889, all of which were within the normal range of -3 to 3 (Hair, et al., 2016). The kurtosis of individual items ranged from -0.760 to 1.070, which is again within the normal range (Hair, et al., 2016). Thus, the hedonic value scale was appropriate for use in SEM.

Table 4.6 Descriptive statistics: Hedonic value

	Minimum	Maximum	Mean	SD.	Skewness	Kurtosis
1. Improves the way I am perceived.	4	7	5.59	.566	.196	-.760
2. Helps me make a good impression on people.	5	7	5.60	.559	.216	-.850
3. Makes me feel delighted.	4	7	5.70	.635	.224	-.524
4. Is appealing.	4	7	5.38	.651	-.351	-.482
5. Gives me pleasure.	4	7	5.35	.566	.889	.435
6. Is stylish.	4	7	5.81	.600	-.620	1.070
7. Is well thought of.	4	7	5.37	.555	.235	-.497
8. Has a good reputation.	4	7	5.32	.558	.748	.410

4.2.3.5 Utilitarian value

The second type of perceived value studied was utilitarian value (Table 4.7). The means of the items in this scale ranged from 5.10 to 5.28, indicating that participants on average somewhat agreed with the items. The minimum for all items (4) indicated that no one disagreed with the items. However, the maximums for “is consistent” and “is outstanding” (6) indicated that for these items, no one strongly agreed. The highest item was that the green hotel “is convenient for me” (M = 5.28, SD = 0.508). The lowest item was that the green hotel “is consistent” (M = 5.10, SD = 0.501). This is somewhat weaker than the hedonic value variables discussed above.

The standard deviations ranged from 0.501 to 0.774, indicating that all items fell within the acceptable variation range (Kline, 2011). The skewness of the items ranged from -.189 to 0.557, which is within the range of -3 to 3 for normal distributions (Hair, et al., 2016). The kurtosis ranged from -1.162 to 0.797, which is also

within the acceptable range Hair, et al., 2016). Thus, the utilitarian value scale was also acceptable for SEM.

Table 4.7 Descriptive statistics: Utilitarian value

	Minimum	Maximum	Mean	SD.	Skewness	Kurtosis
1. Is convenient for me.	4	7	5.28	.508	.557	-.110
2. Is easy to locate.	4	7	5.15	.774	-.189	-1.162
3. Provides good service at a reasonable price.	4	7	5.21	.588	-.001	-.218
4. Is consistent.	4	6	5.10	.501	.190	.797
5. Is outstanding.	4	6	5.17	.524	.182	.160
6. Offer good value for money.	4	7	5.17	.535	.331	.609

4.2.3.6 Visit intention

The first outcome variable was visit intention for green hotels (Table 4.8). The means for these items ranged from 5.29 to 5.61, indicating that on average participants somewhat agreed or agreed with these items. The minimum for all items (4) indicates that no one disagreed. The highest scoring item was “I will make an effort to stay at a green hotel when traveling” (M = 5.61, SD = 0.714). The lowest scoring item was “I will stay at a green hotel when travelling” (M = 5.29, SD = 0.541).

The standard deviations ranged from 0.541 to 0.714, which is within the range of acceptable variance for SEM (Kline, 2011). Skewness ranged from 0.372 to 0.558, which is within the range of acceptable skewness for a normal distribution (Hair, et al., 2016). The kurtosis was also acceptable for normal distributions, ranging from -0.538 to -0.052. Thus, the visit intention scale was acceptable for SEM analysis.

Table 4.8 Descriptive statistics: Visit intention

	Minimum	Maximum	Mean	SD.	Skewness	Kurtosis
1. I will stay at a green hotel when travelling.	4	7	5.29	.541	.372	-.052
2. I plan to stay a green hotel when traveling.	4	7	5.50	.650	.558	-.209
3. I will make an effort to stay at a green hotel when traveling.	4	7	5.61	.714	.436	-.538

4.2.3.7 Word of mouth intention

The second outcome variable was word of mouth intention (Table 4.9). The means of these items ranged from 5.30 to 5.79, indicating that participants on average somewhat agreed or agreed with the items in this scale. The minimum values ranged from 4 to 5, indicating that no one disagreed. The highest scoring item was "I will say positive things about an environmentally friendly hotel" (M = 5.79, SD = 0.522). The lowest scoring item was "I will encourage my friends and relatives to stay at a green hotel while traveling" (M = 5.30, SD = 0.521).

The standard deviations for these items ranged from 0.521 to 0.540, which is within Kline's (2011) threshold of variation for SEM. Skewness ranged from -0.212 to 1.322, indicating that the skewness was also within the range of a normal distribution. Finally, kurtosis ranged from -0.062 to 1.127, indicating that the kurtosis was also within an acceptable range (Hair, et al., 2016). Thus, word of mouth intention was suitable for use in SEM.

Table 4.9 Descriptive statistics: Word of mouth intention

	Minimum	Maximum	Mean	SD.	Skewness	Kurtosis
1. I will encourage my friends and relatives to stay at a green hotel when travelling.	4	7	5.30	.521	1.322	1.127
2. If someone is looking for a hotel, I will suggest to him/her to stay at a green hotel	4	7	5.35	.540	1.004	.239
3. I will say positive things about an environmentally friendly hotel.	5	7	5.79	.522	-.212	-.062

4.2.3.8 Willingness to pay more

The final outcome variable was willingness to pay more (Table 4.10). The means of these items ranged from 5.48 to 5.55, indicating that respondents were somewhat agreed or agreed with the statements. The highest scoring item was "I am willing to pay more for a green hotel" (M = 5.55, SD = 0.668). The lowest scoring item

was “It is acceptable to pay more for a hotel that engages in green practices” (M = 5.48, SD = 0.722). The minimum scores for each item (4) indicate that no one disagreed with the items.

The standard deviations ranged from 0.668 to 0.722, showing that the distributions had acceptable levels of variance for SEM according to Kline (2011). The skewness of the items ranged from 0.402 to 0.647, which is within the range of -3 to 3 for a normal distribution (Hair, et al., 2016). Finally, the kurtosis of the items ranged from -0.368 to -0.217, which is also within the range of a normal distribution (Hair, et al., 2016). Thus, willingness to pay more was suitable in terms of its distribution characteristics for SEM.

Table 4.103 Descriptive statistics: Willingness to pay more

	Minimum	Maximum	Mean	SD.	Skewness	Kurtosis
1. It is acceptable to pay more for a hotel that engages in green practices.	4	7	5.48	.722	.402	-.217
2. I am willing to pay more for a green hotel.	4	7	5.55	.668	.570	-.368
3. I will spend extra in order to stay at an environmentally friendly hotel.	4	7	5.51	.670	.647	-.245

4.2.4 Structural equation modelling (SEM)

The structural equation modelling (SEM) process was conducted in SPSS AMOS. The SEM process used confirmatory factor analysis (CFA), which is a standard approach for SEM. There were three models constructed following reliability testing and multicollinearity testing. These models included the default research model (as proposed in the initial research), a correlation-constrained model, and a modification index-adjusted model. These three models were selected to ensure that the best model fit could be obtained from the model proposed during the initial research. The results of the SEM process are presented below. The first three sections, including reliability testing, multicollinearity testing, and reliability and validity testing, relate to the overall quality of the model and its components. In the final section, the research model is

presented and the hypothesis outcomes are explained. These discussions lead into the qualitative findings, which are presented next.

4.2.4.1 Reliability testing

The initial stage of reliability testing was conducted using Cronbach's alpha (Table 4.11). The acceptance criterion for the alpha coefficient was $\alpha > 0.7$ (Nunnally, 1978; Fornell & Larcker, 1981; O'Leary-Kelly &Vokurka, 1998). Scales that passed this threshold included attitude toward green hotels ($\alpha = 0.844$), perceived value ($\alpha = 0.836$), behavioral intention (($\alpha = 0.718$), and willingness to pay more ($\alpha = 0.910$). Two scales did not meet this threshold, including subjective norms ($\alpha = 0.416$) and perceived behavioral control ($\alpha = 0.634$). These scales were included in the model due to their theoretical importance, but the low reliability was kept in mind while conducting the analysis.

Table 4.11 Summary of Cronbach's alpha coefficients for multi-item scales

Variable	Cronbach's alpha
Criterion	>0.7
Attitude toward green	0.844
Subjective norms	0.416
Perceived behavioral control	0.634
Perceived value	0.836
Behavioral intention	0.718
Willingness to pay more	0.910

4.2.4.2 Multicollinearity testing

Multicollinearity testing was conducted because the assumptions of both SEM and the underlying regression analysis tool, which is that the variables are not highly correlated (Hair, et al., 2016; Kline, 2011). Multicollinearity was assessed based on tolerance and variance inflation factor (VIF) (Table 4.11). Variables with acceptable levels of multicollinearity have tolerance >0.1 and VIF < 10 (Hair, et al., 2016). The analysis showed that all variables had tolerance > 0.1. Three variables had VIF > 10, including attitude towards green hotels (VIF = 10.928), perceived behavioral control (VIF = -15.124), and willingness to pay more (VIF = 15.083). Because these are rules of thumb, they are not absolute, and instead indicate the extent to which the

standard error will be affected by the multicollinearity (O'Brien, 2007). Because all variables passed the test for tolerance, the VIF values are advisory and variables are left in the model.

Table 4.12 Multicollinearity test outcomes

Variable	Tolerance	VIF
Criteria	>0.1	<10
Attitude toward green	1.636	10.928
Subjective norms	2.261	4.434
Perceived behavioral control	1.057	15.124
Perceived value	0.529	7.581
Behavioral intention	0.817	5.561
Willing to pay more	0.646	15.083

4.2.4.3 Research model and hypothesis outcomes

The final stage of the quantitative research was to evaluate the research models that were tested. Three models were assessed, including the initial measurement model, the correlation-constrained model, and the modification index adjusted model. As is standard with SEM (Kline, 2011), all models were conducted using confirmatory factor analysis (CFA). Evaluation of the models is based on goodness of fit tests, which are discussed in Section 3.4.5.2 (Bollen, 1989; Browne & Cudeck, 1993; Diamantopoulos & Siguaw, 2000; Hoelter, 1983; Hu & Bentler, 1999; MacCullum, et al., 1996; Sharma, 1996). The modification index adjusted model was used as the final model was it was the most effective. The outcomes of these models are summarized below, followed by a summary of the hypothesis outcomes.

4.2.4.3.1 Assessment of initial measurement model

The first stage of SEM analysis used the measurement model presented above with a standard CFA analysis, without any adjustments or further fits (Figure 4.1). The full model fit criteria are shown below as well (Table 4.12). The chi-square of this model (χ^2 = 519.232, df = 111, p = 0.000) does not pass the exact fit criterion for goodness of fit (p > 0.05). The chi-square/df ratio (χ^2/df = 4.678) also does not meet the goodness of fit criterion. Thus, this model is not well fitted under exact fit criteria. The relative goodness of fit measures also did not indicate that the model was well fitted. Values including GFI (0.867), NFI (0.854), and CFI (0.881) did not reach the criterion

of ≥0.90, while the Hoelter value (102) did not reach the criterion of >200. Some of the values did reach their thresholds, including AGFI (0.817, criterion ≥0.80), RMR (0.042, criterion close to zero), and RMSEA (0.098, criterion <0.10). Overall, these characteristics indicate that the research model as initially specified did not indicate an acceptable fit, with six out of nine fit indicators showing that the model fit was inadequate. Thus, it was decided that the model should be adjusted rather than using the standard model. Two adjustments were made, including a correlation constrained model and a modification index-adjusted model. These two models are presented next. The regression coefficients for this model were non-diagnostic because of the poor model fit, but are summarized in Table 4.14 for comparison.

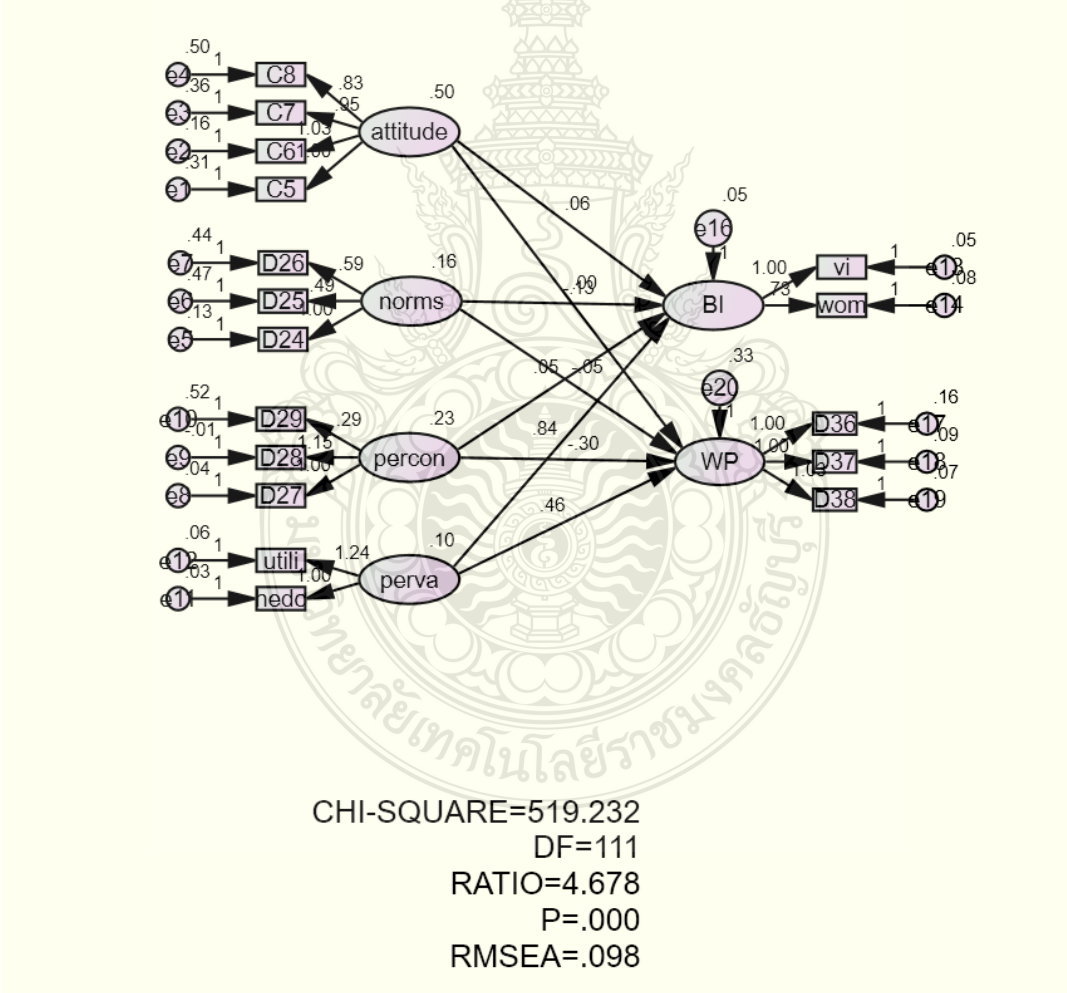

Figure 4.1 Initial research model

Table 4.13 Model fit characteristics of default research model

Model Fit Criteria	**Value**	**Acceptable Level Value**
Chi-Square	519.232	-
Degree of freedom	111	-
Chi-Square/Degree of freedom	4.678	Less than 2
p-value	0.000	> 0.05
GFI	0.867	≥0.90
AGFI	0.817	≥0.80
RMR	0.042	Close to Zero
RMSEA	0.098	< 0.10
NFI	0.854	> 0.90
CFI	0.881	> 0.90
Holelter	102(0.05)	> 200

Table 4.14 Regression coefficients: Initial research model

			Estimate	S.E.	C.R.	P
BI	<---	attitude	.061	.025	2.481	.013
BI	<---	norms	-.130	.073	-1.778	.075
BI	<---	percon	.047	.033	1.409	.159
BI	<---	perva	.841	.066	12.723	***
WP	<---	attitude	.004	.046	.091	.928
WP	<---	norms	-.048	.102	-.471	.637
WP	<---	percon	-.302	.065	-4.687	***
WP	<---	perva	.458	.107	4.278	***
C5	<---	attitude	1.000			
C6	<---	attitude	1.026	.061	16.834	***
C7	<---	attitude	.954	.064	14.886	***
C8	<---	attitude	.832	.066	12.513	***
D24	<---	norms	1.000			
D25	<---	norms	.492	.229	2.148	.032
D26	<---	norms	.592	.270	2.190	.028
D27	<---	percon	1.000			
D28	<---	percon	1.146	.066	17.262	***
D29	<---	percon	.292	.076	3.844	***
hedo	<---	perva	1.000			
utili	<---	perva	1.240	.079	15.626	***
vi	<---	BI	1.000			
wom	<---	BI	.726	.066	10.969	***
D36	<---	WP	1.000			
D37	<---	WP	1.005	.046	22.063	***
D38	<---	WP	1.027	.046	22.447	***

* p < 0.05 , ** p < 0.01 , *** p < 0.001, S.E. = standard error, C.R. = critical ratio

4.2.4.4 Reliability and validity of the model constructs in the measurement model

The measurement model prior to adjustment using modification indices is shown in Figure 4.1. Following the evaluation of reliability and multicollinearity of the model, the individual constructs are assessed for reliability and validity. This process helped to identify the contribution of each Values are included in Table 4.13. In confirmatory factor analysis (CFA), as used in this analysis, the threshold for reliability is CR > 0.7 (Hair, et al., 2016). To test convergent validity, the threshold of AVE > 0.5 is required (Hair, et al., 2016). The threshold required for discriminant validity was that SQRT (AVE) should be between 0.2 and 1.00 (Hair, et al., 2016). R^2 and factor loading do not have specific threshold requirements, but instead are used to understand the contribution of individual variables to the model and to pinpoint problems with reliability and validity of the constructs.

Reliability. CR values for most of the constructs reached the level of CR > 0.7, indicating appropriate levels of reliability. These constructs included attitude toward green hotels (CR = 0.851), perceived behavioral control (CR = 0.812), perceived value (CR = 0.848), and willingness to pay more (CR = 0.916). The two constructs that did not meet this threshold included subjective norms (CR = 0.447) and behavioral intention (CR = 0.741). Looking at the subjective norms construct identifies items with low R^2 including: D25 (R^2 = 0.076) and D26 (R^2 = 0.113). In the behavioral intention construct, items with low R^2 include WOM (word of mouth (R^2 = 0.450).

Convergent validity. Most of the constructs met the requirements for convergent validity, including attitude toward green hotels (AVE = 0.591), perceived behavioral control (AVE = 0.648), perceived value (AVE = 0.735), behavioral intention (AVE = 0.591), and willingness to pay more (AVE = 0.785). The one construct that did not meet the requirement for convergent validity was subjective norms (AVE = 0.246). Therefore, except for the subjective norms construct, the constructs met the requirement for convergent validity.

Divergent validity. All the constructs included in the model passed the requirement for divergent validity of 0.2 > SQRT(AVE) < 1.0. These constructs included attitude toward green hotels (SQRT(AVE) = 0.769), subjective norms

(SQRT(AVE) = 0.496), perceived behavioral control (SQRT(AVE) = 0.805), perceived value (SQRT(AVE) = 0.858), behavioral intention (SQRT(AVE) = 0.769), and willingness to pay more (SQRT(AVE) = 0.886). Thus, the research model's constructs did show appropriate levels of discriminant validity.

Table 4.15 Factor characteristics

			Factor loading	t value	R^2	CR >0.7	AVE >0.5	SQRT(AVE) >0.2 <1
Attitude toward green								
C5	<---	attitude	0.788		0.621	0.851	0.591	0.769
C6	<---	attitude	0.876	16.834	0.767			
C7	<---	attitude	0.75	14.886	0.563			
C8	<---	attitude	0.643	12.513	0.413			
			3.057		2.364			
			9.345					
Subjective norms								
D24	<---	norms	0.742		0.550	0.447	0.246	0.496
D25	<---	norms	0.275	2.148	0.076			
D26	<---	norms	0.336	2.190	0.113			
			1.353		0.739			
			1.831					
Perceived behavioral control								
D27	<---	percon	0.93		0.865	0.812	0.648	0.805
D28	<---	percon	1.021	17.262	1.042			
D29	<---	percon	0.188	3.844	0.035			
			2.139		1.943			
			4.575					
Perceived value								
hedo	<---	perva	0.866		0.750	0.848	0.735	0.858
utili	<---	perva	0.849	15.626	0.721			
			1.715		1.471			
			2.941					
Behavioral intention								
vi	<---	BI	0.856		0.733	0.741	0.591	0.769
wom	<---	BI	0.671	10.969	0.450			
			1.527		1.183			
			2.332					
Willingness to pay more								
D36	<---	WP	0.834		0.696	0.916	0.785	0.886

Table 4.15 Factor characteristics (Cont.)

			Factor loading	t value	R^2	CR >0.7	AVE >0.5	SQRT(AVE) >0.2 <1
D37	<---	WP	0.902	22.063	0.814			
D38	<---	WP	0.919	22.447	0.845			
			2.655		2.354			
			7.049					

4.2.4.5 Assessment of modification index-adjusted model

The final adjustment made to the research model was to use the modification indices produced by SPSS AMOS to respecify the research model to improve fit by eliminating individual items. To use the modification indices, the items were assessed one by one to identify the largest modification indices, and the measures were adjusted as appropriate (Kline, 2011). The modification indices do not necessarily demand that items be removed, but depending on the position of the items and how much sense the recommendation makes, items can be removed or factor loadings adjusted to continue to include them (Kline, 2011). Thus, this approach is appropriate for improving model fit. The modification index-adjusted model is shown in Figure 4.4. Fit indices are summarized in Table 4.18, while regression coefficients are summarized in Table 4.19. For this model, the exact fit criteria do pass, with the chi-square value (χ^2 = 120.190, df = 99, p = 0.073) being above the criterion of p > 0.05 and the chi-square/df ratio (χ^2/df = 1.214) meeting the criterion of < 2. The relative goodness of fit measures also consistently passed their acceptance criterion. GFI (0.965), NFI (0.966), and CFI (0.994) were all above the criterion level of ≥0.90, while AFGI (0.945) was above the criterion level of ≥0.80. The RMR value (0.016) was close to zero, and RMSEA (0.024) was below the <0.10 criterion. Finally, the Hoelter value (394) was above 200. Thus, the model adjusted using the modification indices was an acceptably fitted model based on both the exact fit and the relative fit criteria.

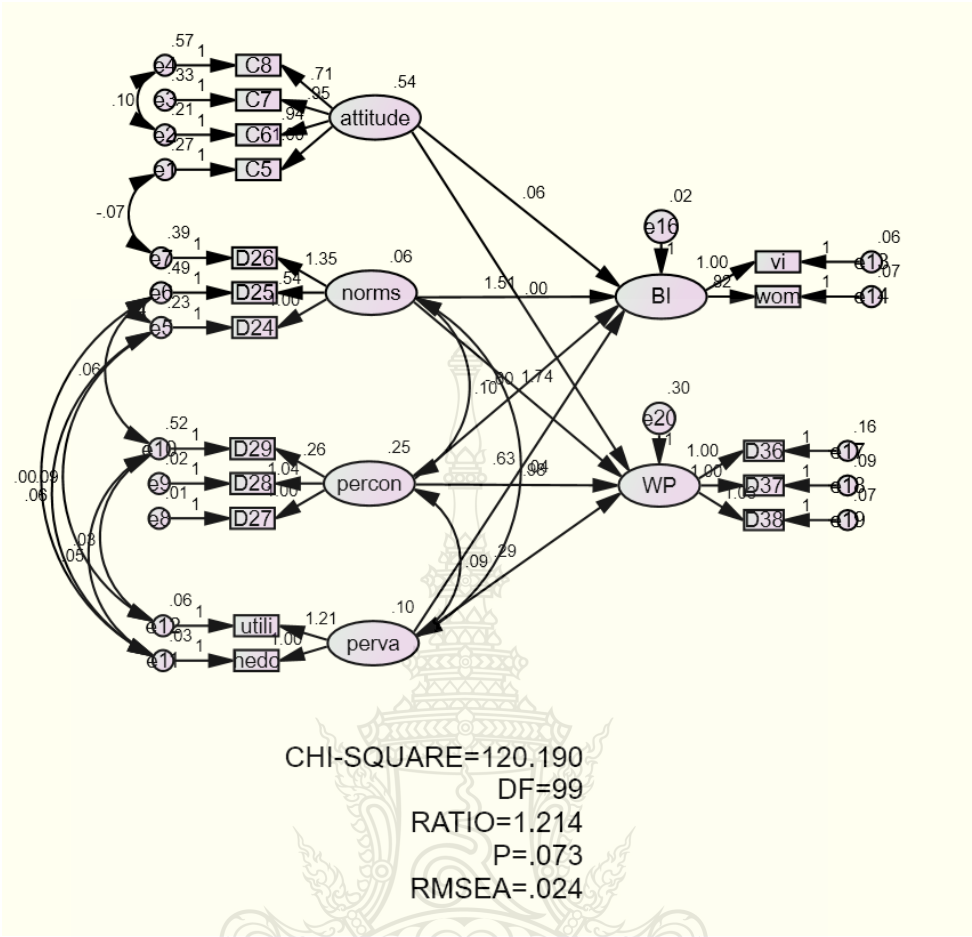

Figure 4.2 Modification index-adjusted research model

Table 4.16 Model fit characteristics of modification index-adjusted research model

			Estimate	S.E.	C.R.	P
BI	<---	attitude	.063	.023	2.697	.007
BI	<---	norms	1.506	.724	2.079	.038
BI	<---	percon	-.596	.294	-2.023	.043
BI	<---	perva	.629	.131	4.797	***
WP	<---	attitude	.000	.046	-.002	.999
WP	<---	norms	1.739	.641	2.713	.007
WP	<---	percon	-.985	.265	-3.713	***
WP	<---	perva	.288	.177	1.631	.103
C5	<---	attitude	1.000			
C6	<---	attitude	.942	.059	15.905	***
C7	<---	attitude	.951	.062	15.341	***
C8	<---	attitude	.710	.069	10.270	***

Table 4.16 Model fit characteristics of modification index-adjusted research model (Cont.)

			Estimate	S.E.	C.R.	P
D24	<---	norms	1.000			
D25	<---	norms	.545	.169	3.225	.001
D26	<---	norms	1.354	.212	6.377	***
D27	<---	percon	1.000			
D28	<---	percon	1.037	.028	37.209	***
D29	<---	percon	.263	.075	3.523	***
hedo	<---	perva	1.000			
utili	<---	perva	1.211	.075	16.105	***
vi	<---	BI	1.000			
wom	<---	BI	.820	.074	11.121	***
D36	<---	WP	1.000			
D37	<---	WP	1.003	.047	21.362	***
D38	<---	WP	1.029	.047	21.783	***

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, S.E. = standard error, C.R. = critical ratio

Table 4.17 Regression coefficients: modification index-adjusted research model

Model Fit Criteria	**Value**	**Acceptable Level Value**
Chi-Square	120.190	-
Degree of freedom	99	-
Chi-Square/Degree of freedom	1.214	Less than 2
p-value	0.073	> 0.05
GFI	0.965	>=0.90
AGFI	0.945	>=0.80
RMR	0.016	Close to Zero
RMSEA	0.024	< 0.10
NFI	0.966	> 0.90
CFI	0.994	> 0.90
Holelter	394(0.05)	> 200

4.2.4.6 Evaluation of the research models and selection of final model

Table 4.16 provides a side-by-side comparison of the goodness of fit criteria of the three models that were constructed using CFA for this research. Only one model – the modification index-adjusted model – passed the exact fit criteria of chi-square ($p > 0.05$) and chi-square/df ratio (< 2). In terms of the relative goodness of fit measures, all three models passed the RMSEA and AFGI criteria. The correlation-constrained and modification index-adjusted models both passed the GFI, NFI, CFI, and

Hoelter criteria. RMR does not have a specific criterion, but the modification index-adjusted model had the closest value to zero (0.016). The modification index-adjusted model was the only model that passed all model fit criteria. Thus, the modification index-adjusted model is the model used for the final evaluation and hypothesis testing.

Table 4.18 Comparison of model fit characteristics of the three models

Measure	**Acceptance Criterion**	**Initial Research Model**	**Modification Index Adjusted Model**
Chi-Square		519.232	120.190
Degree of freedom		111	99
Chi-Square/Degree of freedom	Less than 2	4.678	1.214
p-value	> 0.05	0.000	0.073
GFI	≥0.90	0.867	0.965
AGFI	≥0.80	0.817	0.945
RMR	Close to Zero	0.042	0.016
RMSEA	< 0.10	0.098	0.024
NFI	> 0.90	0.854	0.966
CFI	> 0.90	0.881	0.994
Hoelter	> 200	102(0.05)	394(0.05)

4.2.4.4.5 Hypothesis outcomes

There were eight hypotheses that were proposed for testing with the research model. The final goal of the quantitative research was to examine the evidence for each of the hypotheses and to accept or reject the hypotheses based on the evidence. Hypotheses are accepted based on the significance ($p < 0.05$), with the estimated regression coefficients evaluated for their relative contribution, but not being significant for the regression acceptance. Coefficients used for acceptance are those from the modification index-adjusted model, which as discussed above was the best fitted of the three models tested. The hypothesis outcomes are summarized in Table 4.17.

Hypothesis 1. Hypothesis 1 stated that green attitudes including environmental concern and attitudes to green hotels would have a positive influence on behavioral intention (BI) (visit intention (VI) and word of mouth intention (WOMI)) for green hotels. The t-test outcome for the BI ← Attitude path was significant ($p = 0.007$). Furthermore, the regression estimate ($\beta = 0.063$) does indicate that there was a positive effect of green attitudes including environmental concern and attitudes toward green

hotels specifically on BI, including VI and WOMI, on the hotels. Thus, Hypothesis 1 can be accepted. However, it should be noted that the influence of attitudes on BI was the weakest effect observed of all the significant factors, which would be unusual although it does coincide with other findings. This issue is discussed in the following chapter.

Hypothesis 2. Hypothesis 2 stated that green attitudes would have a positive influence on willingness to pay more (WPM) for green hotels. The t-test outcome for the WPM ← Attitude path was not significant ($p = 0.999$). Furthermore, the regression estimate ($\beta = 0.000$) indicated that attitudes had no effect on WPM. Therefore, H2 is rejected, because there was no significant effect of Attitude on WPM.

Hypothesis 3. Hypothesis 3 stated that subjective norms would have a positive influence on BI for green hotels. The t-test outcome for the BI ← Subjective Norms path was significant ($p = 0.038$). The regression estimate ($\beta = 1.506$) also indicated that the effect of Subjective Norms on BI was positive. Furthermore, it was stronger than the effect of either attitudes or perceived behavioral control, making subjective norms the strongest TPB-related factor in the behavioral intention. Therefore, H3 was accepted.

Hypothesis 4. Hypothesis 4 stated that subjective norms would have a positive influence on WPM for green hotels. The t-test outcome for the WPM ← Subjective Norms path was significant ($p = 0.007$). Furthermore, the regression estimate ($\beta = 1.739$) was positive. It was also the highest of the three attitudinal variables tested against WPM, as it was for the test against BI. This indicates that H4 can be accepted, since it was both significant and positive. Furthermore, the regression estimates indicate that subjective norms had the most influence on both behavioral outcomes out of all the attitudinal variables. This will be examined more thoroughly in the discussion, since it is a critical finding and is contrary to many findings using attitude-behavioral models (Ajzen, 2005).

Hypothesis 5. Hypothesis 5 stated that perceived behavioral control (PERCON) would have a positive influence on BI for hotels. The t-test outcome for the BI ← PERCON path was significant ($p = 0.043$). However, the regression estimate

indicates that there is a negative relationship between the two (β = -0.596). This indicates, essentially, that the more behavioral control the individual believes himself or herself to have, the less likely it is that he or she will form a visit intention or word of mouth intention toward green hotels. Therefore, even though this relationship is significant, because it is negative this hypothesis must be rejected. The implications of this negative relationship are discussed in the following chapter, because they are theoretically important.

Hypothesis 6. Hypothesis 6 stated that PERCON would have a positive influence on WPM for green hotels. The WPM ← PERCON pat was significant ($p < 0.001$). However, as with Hypothesis 5, the regression estimate was negative, not positive (β = -0.985). This negative result is perhaps easier to understand, since it implies that the more behavioral control the individual perceives, the less likely they are to pay more for a green hotel. This result leads to the rejection of H5, since although the result was significant it was negative. The implications of this finding are discussed in the following chapter.

Hypothesis 7. Hypothesis 7 stated that consumer perceived value (PERVA) would have a positive influence on BI for green hotels. Perceived value was composed of two different elements, including hedonic value and utilitarian value. The BI ← PERVA path was significant ($p < 0.001$). Furthermore, the regression estimate for this path was positive (β = 0.629). Thus, H7 was accepted, because of the significant positive relationship. PERVA was also the second highest significant effect on BI, after PERCON, which may be important. This aspect is discussed in the discussion below.

Hypothesis 8. Hypothesis 8 stated that consumer PERVA would have a positive influence on WPM for green hotels. The WPM ← PERVA path was not significant ($p = 0.103$). Thus, H8 must be rejected, since there was no significant effect. This rejection is discussed in the following section.

Summary of hypothesis outcomes. In summary, significant positive effects on behavioral intentions toward green hotels included green attitudes, subjective norms, and perceived value. This allowed the acceptance of H1, H3, and H7. Consumer perceived behavioral control did have a significant effect on behavioral intentions, but this effect was negative rather than positive, leading to the rejection of H5. There were

significant positive effects of subjective norms on willingness to pay more for green hotels, allowing for the acceptance of H4. However, other hypotheses regarding willingness to pay more were not accepted. Green attitudes and perceived value did not have a significant effect on willingness to pay more, which led to the rejection of H2 and H8. Finally, consumer perceived behavioral control had a significant relationship, but this relationship was negative, leading to the rejection of H6. These results show that the research model was a better predictor of behavioral intentions than willingness to pay more. The implications of these findings are discussed in the following chapter.

Table 4.19 Summary of hypothesis outcomes

Hypothesis	Outcome
H1: Green attitudes (environmental concern and attitude to green hotels) will have a positive influence on behavioral intention toward green hotels (VI and WOMI).	Accepted
H2: Green attitudes (environmental concern and attitude to green hotels) will have a positive influence on willingness to pay more (WPM).	Rejected*
H3: Subjective norms will have a positive influence on behavioral intention toward green hotels (VI and WOMI).	Accepted
H4: Subjective norms will have a positive influence on willingness to pay more (WPM).	Accepted
H5: Consumers' perceived behavioral control will positively influence behavioral intention toward green hotels (VI and WOMI).	Rejected**
H6: Consumers' perceived behavioral control will positively influence willingness to pay more for green hotels (WPM).	Rejected**
H7: Consumers' perceived value will have a positive influence on behavioral intention to green hotels (VI and WOMI).	Accepted
H8: Consumers' perceived value will have a positive influence on willingness to pay more for green hotels (WPM).	Rejected *

Notes: * Rejected due to significance level ** Rejected due to negative effect (hypothesis proposed positive relationship)

4.3 Qualitative Results

Following the quantitative survey, interviews with five respondents were conducted. The purpose of the interviews was to provide explanation and insight into the quantitative results. The qualitative results were analyzed using qualitative content analysis (QCA).

4.3.1 Attitudes to the environment and green hotels

Respondents were asked to identify their attitudes toward environmental conservation. In general, participants had a high level of awareness toward the environment and environmental problems such as pollution, global warming, and excess waste and water usage. The respondent said "if everyone helps to conserve the environment, environmental problems would be reduced". "We have to make everyone aware of the environment, such as teaching children about energy conservation." Other measures that were identified as important included saving water and reducing waste and using recycled products to reduce pollution and limit the impact of global warming. Unfortunately, respondents were not fully positive about the experience "Everyone learns about environmental conservation, but no one actually applies it." Thus, this group of respondents had positive attitudes toward the environment and what could be characterized as a high level of environmental concern. The generally high level of environmental concern may be somewhat higher than in the quantitative study, which showed only moderate agreement on average with the green attitudes and attitudes to green hotels. This would not be unexpected, given the time commitment of the interviews would suggest that more interested individuals would be more likely to engage in the study.

Next, respondents were asked how they select hotels. Common criteria for hotel selection included comfort; good services and standards, location and proximity to travel, restaurants, or tourist attractions, value for money or cost, safety, and working to save the environment. These responses show therefore that the least important characteristic of the hotel was the hotel's impact on the environment. However, participants did agree, as discussed next, that they did consider and stay in green hotels; thus, while environmental impact is not a primary concern, it does still influence the consumer's decision.

Respondents were asked whether they choose to stay in a green hotel, and what conditions might determine this choice, including who makes the decision. All five respondents chose to stay in green hotels at least sometimes. This is consistent with the earlier question. Thus, respondents do routinely choose to stay in green hotels, but in some cases their travelling partners may make a difference in the choice of hotel.

Respondents were also asked whether if green hotel request you to pay more in order to environment protection, would you like to stay at the green hotel? This question represents willingness to pay more (WPM) for a green hotel. Respondents were less certain about their willingness to pay more than they were about their choice of green hotels. Only one respondent was unequivocal, stating “I think paying more or less is not as important as getting good hotel service. So if a green hotel makes me feel like I'm paying for it, I'll get better service than any other hotel. I would be willing to pay.” Thus, the respondents had a low willingness to pay a price premium for a green hotel, unless the green hotel was better than the conventional hotel. While some participants indicated they would or might, others would not. This indicates some degree of ambiguity about the desire to pay more for a green hotel. This is consistent with the quantitative findings, which showed that only subjective norms influenced the willingness to pay more for a green hotel and where mean willingness to pay more for a green hotel was only moderate.

In summary, participants had high levels of environmental concern and positive attitudes to green hotels, and they generally indicated they were willing to stay in green hotels. Some of the respondents were highly likely to stay in a green hotel, while other stated that they might, depending on their travel companions’ preferences. However, they were much less willing to pay more for a green hotel than an equivalent conventional hotel. This strongly supports the quantitative finding, which indicated that consumers’ attitudes had a much stronger effect on the consumer’s behavioral intentions than their willingness to pay more. The implications of these findings are discussed in the following chapter.

4.4 Summary

This chapter has presented the findings of the mixed methods study. The quantitative results were derived from a survey of Thai consumers with experience in green hotels (n = 385). Quantitative analysis methods included descriptive statistics and SEM. The descriptive statistics for the SEM model’s predictor variables showed that the attitudes toward green hotels were moderately high, with means of individual items ranging from 5.79 to 5.96. Other attitudinal variables were weaker, with subjective

norms means ranging from 5.08 to 5.44 and perceived behavioral control means ranging from 5.34 to 5.71. Hedonic value also had a moderate value and one of the most variable ranges, with means ranging from 5.31 to 5.81. Utilitarian value was lower than hedonic value, with means ranging from 5.10 to 5.28. There was also some variation in the SEM model's outcome variables. Means for visit intention items ranged from 5.29 to 5.61. Means for word of mouth intention were similar, ranging from 5.30 to 5.79. Means for willingness to pay more were highly consistent, ranging from 5.48 to 5.55 and showing the least inter-item variation. These variable scales indicate that in terms of outcomes, visit intention and word of mouth intention were somewhat higher than willingness to pay more. The SEM process was conducted using CFA, with three models constructed, including the default model, correlation-constrained model, and modification index-adjusted model. The modification index-adjusted model was the best fitted model, and was selected for the hypothesis tests. Hypothesis testing showed that H1, H3, H4, and H7 were accepted. Green attitudes, subjective norms, and perceived value all had a positive effect on behavioral intentions toward green hotels, while subjective norms did have a positive effect on willingness to pay more for green hotels. Hypotheses H2, H5, H6, and H8 were rejected. Green attitudes and perceived value did not have a significant effect on willingness to pay more for green hotels (H2 and H8). Surprisingly, perceived behavioral control had a significant negative effect on both behavioral intentions toward green hotels and willingness to pay more for green hotels (H5 and H6). The qualitative interviews supported the quantitative findings, demonstrating that while consumers were willing to stay in green hotels (though this decision was sometimes influenced by travel partners), environmental impact was not a major factor in the choice of hotel and consumers were not willing to pay more for green hotels. These findings and their implications are discussed in the following chapter.

CHAPTER 5
CONCLUSION AND RECOMMENDATIONS

This study has examined the influence of attitudes and perceived value on the Thai consumer's behavioral responses to domestic green hotels. The previous chapters have addressed several different aspects of the research situation. In this chapter presented the results and was divided into four parts. The first part was a summary of methodology and research findings. The second part contained the discussions of research questions. The third part discussed the limitations of the study. The last part provided the implications of practice which presented the research findings and guidelines regarding the effects of attitude towards green, subjective norms, perceived behavioral control, and perceived value on behavioral intention and willingness to pay more toward Thai green hotels as well as suggestions for future research.

The aims and objectives are oriented toward describing and explaining characteristics of Thai consumers with hotel experience. Based on this aim and the research problem, there have been several objectives established. These objectives will be accomplished through a combination of theoretical review (Literature Review) and primary research (consumer survey). The objectives include: to examine Thai consumer perceptions and attitudes toward green hotels; to examine existing consumer behaviors toward green hotels; and to determine the impact of an extended Theory of Planned Behavior (TPB) (including green attitudes, subjective norms, perceived behavioral control, and hotel perceived value) on behavioral intention (VI, WOMI), and willingness to pay more (WPM); and to provide recommendations based on the primary study and literature review to improve green hotel services in Thailand.

The final point of analysis of this research is to provide a single response to each of the research objectives or questions, which was derived from a synthesis of the primary research (quantitative and qualitative studies) and the secondary research (literature review). The research questions were established following the preliminary review, which identified the theory of planned behavior (TPB) and perceived value as important factors in consumer decisions. The four research questions were:

1. Does green attitude have a positive influence on consumer behavioral intentions and willingness to pay more for green hotels?

2. Do subjective norms have a positive influence on consumer behavioral intentions and willingness to pay for green hotels?

3. Does perceived behavioral control have a positive influence on behavioral intentions and willingness to pay more for green hotels? And

4. Does perceived value have a positive influence on behavioral intentions and willingness to pay more for green hotels?

There were eight hypotheses conducted for the research as shown in the following.

H1: Green attitudes (environmental concern and attitude to green hotels) will have a positive influence on behavioral intention toward green hotels (VI and WOMI).

H2: Green attitudes (environmental concern and attitude to green hotels) will have a positive influence on willingness to pay more (WPM).

H3: Subjective norms will have a positive influence on behavioral intention toward green hotels (VI and WOMI).

H4: Subjective norms will have a positive influence on willingness to pay more (WPM).

H5: Consumers' perceived behavioral control will positively influence behavioral intention toward green hotels (VI and WOMI).

H6: Consumers' perceived behavioral control will positively influence willingness to pay more for green hotels (WPM).

H7: Consumers' perceived value will have a positive influence on behavioral intention to green hotels (VI and WOMI).

H8: Consumers' perceived value will have a positive influence on willingness to pay more for green hotels (WPM).

This research has presented the findings of the mixed methods study. The quantitative results were derived from a survey of Thai consumers with experience in green hotels (n = 385). Quantitative analysis methods included descriptive statistics and SEM. The descriptive statistics for the SEM model's predictor variables showed that the attitudes toward green hotels were moderately high, with means of individual items

ranging from 5.79 to 5.96. Other attitudinal variables were weaker, with subjective norms means ranging from 5.08 to 5.44 and perceived behavioral control means ranging from 5.34 to 5.71. Hedonic value also had a moderate value and one of the most variable ranges, with means ranging from 5.31 to 5.81. Utilitarian value was lower than hedonic value, with means ranging from 5.10 to 5.28. There was also some variation in the SEM model's outcome variables. Means for visit intention items ranged from 5.29 to 5.61. Means for word of mouth intention were similar, ranging from 5.30 to 5.79. Means for willingness to pay more were highly consistent, ranging from 5.48 to 5.55 and showing the least inter-item variation. These variable scales indicate that in terms of outcomes, visit intention and word of mouth intention were somewhat higher than willingness to pay more.

5.1 Discussion of the Research Findings

This section provided discussion the research findings in various aspects according to four research questions.

5.1.1 Discussion of Research Question 1

Research question 1: Does green attitude have a positive influence on consumer behavioral intentions and willingness to pay more for green hotels?

To begin responding to the first research question, the evidence for attitudes on consumer decisions was reviewed. Within the TPB, which was the core theory used to construct the theoretical framework for this study, attitudes were identified as one of the most consistent factors that influenced individual decisions (Ajzen, 2005). In the context of the TPB, attitudes are mainly related to how effective the action being contemplated is expected to be in goal achievement, although other factors like attractiveness are also considered (Ajzen, 2005). The literature review revealed two different types of attitudes that could influence the consumer's decision for green hotels. One of these attitudes was environmental concern, which is a generalized awareness of environmental issues and concern about these issues (Baker, et al., 2015; Han, et al., 2009; Han & Kim, 2010; Han, et al., 2010; Han, et al., 2011; Han, 2015; Hu, et al., 2010; Kun-Shan & Teng, 2011; Oreg & Katz-Gerro, 2006). Environmental concern is associated with environmentally aware behaviors like recycling and taking

public transport, as well as green hotels. A variation of environmental concern that has also been used is moral obligation toward the environment (Chen & Tung, 2014). Another type of attitude that influences consumer behavior toward green hotels is attitudes that specifically relate to green hotels (Chen & Tung, 2014; Han, 2015). Some of these attitudes can be positive, such as beliefs about positive environmental impact and communities, but others can be negative, such as perceptions of greenwashing (Baker, et al., 2014). Studies have had mixed findings with respect to the relative importance of attitude in behavioral intentions for green hotels and similar decisions such as green restaurant purchases. For example, Han and Kim (2010) found that attitude was the weakest factor in consumer decisions, but other studies have found that attitudes were the strongest factor in the green hotel decision (Han, et al., 2009; Han, et al., 2010; Kun-Shan & Teng, 2011). Thus, from the literature review, it was expected that there would be a positive, significant effect of attitudes on behavioral intentions, including visit intentions and word of mouth intentions (measured together as behavioral intentions) and willingness to pay more for green hotels. These beliefs were encapsulated in Hypotheses 1 and 2, which were:

H1: Green attitudes (environmental concern and attitude to green hotels) will have a positive influence on behavioral intention toward green hotels (VI and WOMI).

H2: Green attitudes (environmental concern and attitude to green hotels) will have a positive influence on willingness to pay more (WPM).

It is notable that attitudes had the weakest effect on consumer behavioral intentions. This is consistent with the findings of Han and Kim (2010), who also found that attitudes had a very weak effect on the consumer's behavioral intention for green hotels, while subjective norms had the strongest effect. This contrasts with the finding of studies like Kun-Shan and Teng (2011) Han, et al. (2009), and Han, et al. (2010), which found that individual attitudes were the strongest determinant of behavioral intentions. One possible reason is that consumers vary in terms of their price sensitivity (D'Souza, et al., 2007), or in other complex cognition factors that create an attitude-behavioral gap (Ha-Brookshire & Norum, 2011). There is some suggestion from the qualitative findings that this could be the case, since consumers showed a high level of general environmental concern and behavioral intention to choose green hotels but an

unwillingness to pay more. While this study did not address price consciousness, Thai consumers have been found to be more price conscious than other consumer groups in unrelated consumer contexts (Thanasuta, 2015). Thus, price consciousness could be one reason for the attitude-behavior gap related to green hotels in this study, since attitudes influenced consumer behavioral intentions but not their willingness to pay.

In response to Research Question 1, green attitudes do have a positive, significant effect on behavioral intentions toward green hotels. However, they do not have a significant effect on willingness to pay more for green hotels. As the following discussion will reveal, this is a common finding, as this study did not identify many factors that influenced willingness to pay more (and in fact consumers showed a low willingness to pay more in general).

5.1.2 Discussion of Research Question 2

Research question 2: Do subjective norms have a positive influence on consumer behavioral intentions and willingness to pay more for green hotels?

The focus of the second research questions, is the second major attitude within the TPB. While attitudes relate to the individual's own perception of how effective the behavior will be, subjective norms relate to the individual's beliefs about social acceptability of the behavior (Ajzen, 1991; Ajzen, 2005). Subjective norms can relate to the moral acceptance of the action, what others in the individual reference group believe the individual should do, or what others in the individual reference group would do themselves (Ajzen, 2005). Within the TPB, subjective norms influence the behavioral intentions of the individual, although the extent of influence compared to attitudes can vary depending on what type of decision it is (Ajzen, 2005). However, there can be difficulties in measuring subjective norms, because they can be ambiguous, hard to define, and may not actually be shared between members of social groups (Cheng, et al., 2006). Thus, subjective norms were expected to be a problematic concept for the study. The empirical evidence for subjective norms in relation to green hotels is mixed. In general, studies have found that subjective norms had a significant, positive influence on the consumer decision (Chen & Tung, 2014; Cheng, et al., 2006; Han & Kim, 2010; Han, et al., 2010; Kim, et al., 2013; Kun-Shan & Teng, 2011). However, evidence was mixed as to whether subjective norms or attitudes had a larger effect on the consumer's

behavioral intentions for green hotels. The evidence from the literature review was used to state Hypothesis 3 and Hypothesis 4, which were:

H3: Subjective norms will have a positive influence on behavioral intention toward green hotels (VI and WOMI).

H4: Subjective norms will have a positive influence on willingness to pay more (WPM).

Subjective norms was the only dimension studied that had the expected effect on willingness to pay more. Thus, H3 and H4 were both accepted, as subjective norms did have a positive and significant effect. The qualitative results did not provide much information about subjective norms, as the focus of the interviews was on the individual's own attitudes. However, many of the respondents did make decisions with assistance of friends and family, which could influence the role of subjective norms.

The reason for the dominant influence of subjective norms over attitudes is uncertain. The literature review of this research drew mainly on consumer studies from different Asian countries, which while they are similar are not identical (Hofstede, et al., 2010). For example, subjective norms may have more power in highly collectivist cultures, where individuals make decisions based on others within their reference groups (Hofstede, et al., 2010). According to the Hofstede Centre's (2017) cultural dimension scores, Thailand is a highly collectivist culture (IDV = 34), indicating that subjective norms could have a strong influence. Taiwan, which was the focus of Chen and Tung's (2014) and Kun-Shan and Teng's (2011) research, is also a highly collectivist culture (IDV = 45) (Hofstede Centre, 2017). However, this is not a certain reason, since Han and Kim (2010), who studied the highly individualistic Americans (IDV = 91) (Hofstede Centre, 2017), also found that subjective norms had a stronger influence than attitudes. As Cheng, et al. (2006) noted, subjective norms can be particularly difficult to understand because they have ambiguous and sometimes conflicting definitions, so it is not certain that this explanation would hold. It cannot be directly determined from the literature, since there is very little research that compares green hotels or similar decisions between cultures. However, it is an interesting possibility and one that could be explored in further research.

In summary, the response to Research Question 2 was that subjective norms did have a positive, significant effect on consumers' behavioral intentions toward green hotels and their willingness to pay more. Furthermore, the effect of subjective norms was higher on both outcome variables than any other predictor variable considered. While the reason for this high level of influence is uncertain, it is possible that it is culturally motivated and related to a high level of collectivism.

5.1.3 Discussion of Research Question 3

Research question 3: Does perceived behavioral control have a positive influence on behavioral intentions and willingness to pay more for green hotels?

The third research question addressed the role of the third standard component of the TPB – perceived behavioral control – on the consumer response to green hotels. Perceived behavioral control, or the consumer's belief that his or her action will be effective or can be accomplished, is the element of the TPB that sets it apart from other attitude-behavioral models of human decision making, such as the theory of reasoned action (TRA) (Ajzen, 1991; Ajzen, 2005). In general, the TPB model proposes that perceived behavioral control has a positive effect on behavioral intentions, and is furthermore the only attitude that may have a direct effect on the actual action (see Figure 2.1) (Ajzen, 1991; Ajzen, 2005). Perceived behavioral control does typically have a lower correlation than the other two factors, but is still significant (Ajzen, 2011). Thus, from a theoretical perspective it was not unreasonable to suppose that the same would be the case in this study. This position was also supported by the empirical evidence within the literature on green hotels and related consumer choices, although perhaps not as extensively as the other factors. Kim, et al. (2013) found that there was a positive (though weak) relationship between perceived behavioral control and intention to eat a green restaurant. Han and Kim (2010) also found that perceived behavioral control was significant, though weak, as did Kun-Shan and Teng (2013). Han (2015) found that perceived behavioral control was actually one of the strongest factors in the decision for green hotels, rather than one of the weakest. Perceived behavioral control has also been identified as the strongest factor in general environmental behaviors – simply, people are more likely to engage in environmentally friendly activities when they believe they have more control over these activities (Oreg & Katz-Gerro, 2006).

Thus, although the strength of the relationship was uncertain, its significance and direction seemed clear from the literature. This allowed the researcher to state that:

H5: Consumers' perceived behavioral control will positively influence behavioral intention toward green hotels (VI and WOMI).

H6: Consumers' perceived behavioral control will positively influence willingness to pay more for green hotels (WPM).

A direct explanation for this finding could not be found either in the literature review that was originally conducted or in a second literature review targeted to this question. However, microeconomic theory may provide a possible explanation for this relationship. The literature review has shown that consumer perceptions of green hotels can be negative. For example, green hotels can be perceived as greenwashing, or providing superficial environmental benefits as a marketing tactic (Baker, et al., 2014). Green hotels are typically more expensive than conventional hotels, but may not be viewed as having the same level of comfort or quality (Han & Chan, 2013; Kang, et al., 2012; Royne, et al., 2011). In the qualitative interviews, respondents identified comfort as their top requirement for hotels. Therefore, consumers may view green hotels as an inferior substitute for conventional hotels (Wetzstein, 2013). When consumers have a greater choice between inferior and standard substitutes (for example, if there is a wider market choice of goods or when they can afford better goods), consumers become less willing to choose inferior goods (Wetzstein, 2013). In this case, if consumers are mainly concerned with comfort, and if green hotels are perceived as less comfortable, then it is not just possible but likely that a green hotel would be considered as an inferior substitute. Thus, this could be a possible explanation for the outcomes.

In summary, the response to research question 3 was that, contrary to expectations, perceived behavioral control had a significant negative effect on both behavioral intentions and willingness to pay more for green hotels. This relationship is not easily explained given the literature on consumer decision theory or on green hotels specifically, but it is possible there are interaction effects from other aspects of the decision process or conflicts between different goals.

5.1.4 Discussion of Research Question 4

Research question 4: Does perceived value have a positive influence on behavioral intentions and willingness to pay more for green hotels?

The final research question addressed the influence of perceived value on the consumer's behavioral intention and willingness to pay more for green hotels. Perceived value is not a standard element of the TPB, but it is commonly added as an extension for consumer decisions (Sánchez-Fernández & Iniesta-Bonillo, 2007). Perceived value is a multidimensional and sometimes ambiguous concept, but it has been shown to be highly important for consumer decisions (Gallarza, et al., 2011). This study focused on hedonic or experiential value and utilitarian or use value. The empirical literature on green hotels has had mixed results. For example, Han and Chan (2013) found that some characteristics of the green hotel were seen as enhancing utilitarian value, but other characteristics like lack of comfort detracted from hedonic value. Perceived value has not been included much in TPB-based studies of green hotel choice, as most of these studies have focused on moral obligation or environmental concern instead. However, perceived value, especially hedonic value, is known to be at the heart of tourist decision making (Budeanu, 2007). Essentially, tourists travel in search of a hedonic experience, although this experience may be defined in different ways by different tourists (Budeanu, 2007). The search for hedonic value can even create an attitude-behavioral gap, with consumers that have a normally high level of environmental concern engaging in environmentally damaging behaviors while on holiday (Antimova, et al., 2012). Thus, while the empirical research into green hotels did not support the role of perceived value, its importance in other consumer decision contexts and the role of hedonic experience in the tourism decision making supported the proposal of two further hypotheses. Hypotheses 7 and 8 were stated as:

H7: Consumers' perceived value will have a positive influence on behavioral intention to green hotels (VI and WOMI).

H8: Consumers' perceived value will have a positive influence on willingness to pay more for green hotels (WPM).

Unlike the findings related to perceived behavioral control discussed under research question 3, the lack of significant effect of perceived value on willingness to

pay more can be explained from the literature. Perceived value relates to the consumer's perception of what they received, compared to what they have paid (Gallarza, et al., 2011). It is already known from the literature that consumers may not perceive as high a value in green hotels as they do in conventional hotels. For example, they may not offer as much comfort and consumers may perceive a sacrifice in terms of food taste, variety and quality (Schubert, et al., 2010). This goes against consumer expectations for hotels, which as Tsai and Tsai (2008) explained, are that they will provide a high level of hedonic experience. Therefore, consumers that may already feel that they are sacrificing hedonic value and comfort by choosing a green hotel, and may not be willing to pay more for the experience, which they view as having a lower value. Thus, although this finding went against the expected position of the literature, it was not inconsistent with the actual consumer perceived value of green hotels and their comparison to the expected hedonic value of conventional hotels. While this could be different for consumers with high levels of environmental concern, this was not a focus of this study. This could be an opportunity for further study.

In response to research question 4, consumer perceived value did have a positive effect on behavioral intention for green hotels, and was the second highest positive effect after subjective norms. However, perceived value did not have a significant effect on willingness to pay more for green hotels. This finding is consistent with the literature on perceived value, since green hotels may appear to offer less value (especially hedonic value) than equivalent conventional hotels.

This study was focused on consumer behavioral responses to green hotels. By using the TPB and perceived value in a single framework, it incorporated different cognitive, emotional, and behavioral aspects of the consumer behavioral intention. It also examined several different consumer behaviors, including visit intentions, word of mouth intentions, and willingness to pay more. The empirical findings showed that attitudes, subjective norms, and perceived value had a significant, positive effect on behavioral intentions (visit intentions and word of mouth intentions). Surprisingly, perceived behavioral control had a negative effect on behavioral intentions toward the green hotel, which was contrary to the standard behavioral model (TPB). The only

factor of the four studied that had a significant effect on willingness to pay more was perceived behavioral control. Once again, this effect was negative.

The results of this study, which seemed straightforward from the literature review, turned out to be more complicated than expected, especially with regard to perceived behavioral control. It is possible that green hotels, which are perceived as both less comfortable (delivering lower hedonic value) and potentially misleading (using greenwashing as a marketing technique) are considered by consumers as an inferior good compared to conventional hotels. Therefore, consumers that do not have a high level of environmental concern may not prefer green hotels, and consumers are not willing to pay more for these green hotels. Thus, it seems that recreating a green hotel experience for mass tourism, where tourists would have varying levels of environmental concern but uniformly high levels of concern for comfort and hedonic experience, would require improving the hotels to compete with conventional hotels experientially.

In conclusion, the consumer decision for green hotels is a complex decision that depends on the social environment, perceived value (especially hedonic value), and behavioral control among other factors. In fact, the consumer's own attitude toward green hotels had the lowest effect on the choice of a green hotel and their willingness to pay more for that hotel. This shows that consumer choice of green hotels may be a more involved decision than initially expected, and one that deserves further study. Recommendations for this further study are presented below.

5.2 Limitations of the Study

There are several methodological limitations that need to be discussed in relation to this study. First, the study was conducted as a cross-sectional study, which means that it only reflects the point in time when data was collected. Thus, while the research shows consumer attitudes and responses at the time, it does not reflect changes in attitudes and behaviors over time. For example, Thai consumers could have increased environmental awareness due to growing climate change impact over time, which could increase their preference for and willingness to pay for green hotels. This study was limited to a cross-sectional design because of the time available for the study, which

would not have allowed for observation of meaningful change. However, if this change does occur, the results of this study may no longer be applicable.

Another limitation is the low reliability of the subjective norms scale, which was found throughout the analysis. Identifying the right subjective norms for any given individual decision is one of the most difficult parts of attitudinal research (Ajzen, 2005), and one of the reasons why subjective norms may have such a varying influence. In this study, there was a low level of consistency between the three identified norms, which could have influenced the outcomes of the study. While these limitations do not detract from the usefulness of the study findings, they could create issues in applying the findings. There are also broader limitations of generalization to be considered. In particular, the particular characteristic of Thai domestic travel and availability of green hotels, along with culturally determined levels of environmental concern, mean that the results cannot be applied directly in any other culture. While these results are informative, it could not be assumed that consumers in a different environment would have the same responses.

5.3 Implications and Future Research

There are two different types of implications examined in this research. The first is the implication, particularly for managers of green hotels. The second is opportunities for future research in this topic area.

5.3.1 Implications

5.3.1.1 Implications for Practice

The most important implications of this research for practice are for green hotel managers and owners and tourism policymakers in Thailand. There are two key implications for both these groups, which need to be addressed.

The first implication is that consumers do not have a high willingness to pay more for green hotels than for the equivalent quality conventional hotel. This unwillingness to pay a price premium was reinforced both through the quantitative results, which showed that only subjective norms (social pressure) created such a willingness, and through the qualitative results, which showed that in general consumers were not willing to pay more. This strongly suggests that if green hotels are

to become a mass market offering rather than a niche tourism activity, it is essential that they either can be provided at prices close to conventional hotels of the same grade, or that such hotels offer enhanced quality, comfort, or other hedonic or utilitarian value to make them more attractive than equivalent conventional hotels. Changing consumer attitudes or offering greater choice of green hotels is not likely to make a difference, since consumer attitudes were not associated with willingness to pay more and perceived behavioral control had a negative effect. Thus, the hotel offering itself must be modified to increase consumer willingness to pay more.

The second implication relates to tourism policymaking and marketing. The consumer descriptive statistics showed that social media, followed by company websites and travel websites, were the most important sources of information about green hotels. This is consistent with the green hotel's current position as a niche market, and it offers insights into how marketing can be most effectively accomplished. Thus, policymakers and marketers should focus on online marketing as a means of communicating effectively with potential tourists.

5.3.1.2 Implications for Academic Research

The theory of planned behavior (TPB) model has been the basis for a number of previous studies on green hotel consumer responses and consumer responses in other green hospitality sectors, and has been generally effective in these studies. However behavioral intention does not perfectly predict behavior; for example, individuals may forget their intentions, like lack of availability. Therefore, most studies using the TPB actually assess self-reported behavioral intentions instead of behavior.

This research focuses on a multi-dimensional model of perceived value, which incorporates utilitarian and hedonic value. There are also other researchers present multiple dimensions of perceived value identified by previous studies and shows that customers perceived value in terms of their functional aspects. Therefore, it is recommended to the next researcher study or categorize perceived value as appropriate for research.

Part of this research found that Cronbach 's alpha of subjective norms was below the standard. But when the researcher tested the hypothesis, the hypothesis was accepted shown that Thai tourists were different from foreign tourists. Criteria for

selection of accommodation by Thai consumers. Focus on convenience rather than environmental considerations. However, to answer this question. Researchers may be targeted groups by income level.

5.3.2 Future Research

While the discussion above identified some specific questions that could be explored in further research, the literature also turned up two broad areas where there are gaps in the academic understanding of green hotels and consumer choice.

1. The future research should be conducted under normal circumstances for the long time period or on a longitudinal study with the use of the same model as in this research in order to confirm that the model is consistent with empirical data.

2. This study has begun to fill the gap by focusing on domestic tourists, but there is still much more information to be collected before the domestic tourist can truly be understood. In particular, it is not always clear how domestic and international tourists may vary in their preferences and decision bases. This could be an opportunity for comparative research, either in Thailand or elsewhere that examines differences between domestic and international tourists.

3. Another area where there is a noticeable void in the literature that remains after this study is a comprehensive explanation for the attitude-behavioral gap in relation to green hotels and other sustainable tourism activities, or indeed to other environmentally influenced decisions.

List of Bibliography

Ajzen, I. (1991). The theory of planned behavior. ***Organizational Behavior and Human Decision Processes****, 50*(2), 179-211.

Ajzen, I. (2005). ***Attitudes, personality and behavior*** (2nd ed.). Maidenhead, England: Open University Press.

Altinay, L., Paraskevas, A., & Jang, S. (2015). ***Planning research in hospitality and tourism***. London: Routledge.

Antimova, R., Nawijn, J., & Peeters, P. (2012). The awareness/attitude-gap in sustainable tourism: a theoretical perspective. ***Tourism Review****, 67*(3), 7-16.

Baker, M. A., Davis, E. A., & Weaver, P. A. (2014). Eco-friendly attitudes, barriers to participation, and differences in behavior at green hotels. ***Cornell Hospitality Quarterly****, 55*(1), 89-99.

Berezan, O., Raab, C., Yoo, M., & Love, C. (2013). Sustainable hotel practices and nationality: The impact on guest satisfaction and guest intention to return. ***International Journal of Hospitality Management****, 34*, 227-233.

Bryman, A., & Bell, E. (2015). ***Business research methods*** (4th ed.). Oxford: Oxford University Press.

Budeanu, A. (2007). Sustainable tourist behaviour - a discussion of opportunities for change. ***International Journal of Consumer Studies****, 31*, 499-508.

Bureekul, T., & Albritton, R. (2013). Trust and preference for democracy in Thailand. *The Asian Conference n Politics,* ***Economics and Law 2013***, (pp. 100-114). Osaka, Japan.

Chen, M., & Tung, P. (2014). Developing an extended Theory of Planned Behavior model to predict consumers' intention to visit green hotels. ***International Journal of Hospitality Management****, 36*, 221-230.

Chen, Y., & Chen, Y. (2012). The advantages of green management for hotel competitiveness in Taiwan: In the viewpoint of senior hotel managers. ***Journal of Management and Sustainability****, 2*(2), 211-218.

Chen, Y., & Xie, J. (2008). Online consumer review: Word-of-mouth as a new element of marketing communication mix. ***Management Science****, 54*(3), 477-491.

Cheng, S., Lam, T., & Hsu, C. H. (2006). Negative word-of-mouth communication intention: An application of the theory of planned behavior. ***Journal of Hospitality and Tourism Research***, *30*(1), 95-116.

Cooper, D. R., & Schindler, P. S. (2014). ***Business research methods (12th ed.)***. London: mcGraw-Hill Irwin.

Country Meters. (2016). ***Thailand population***. Retrieved from Country meters: http://countrymeters.info/en/Thailand#population_2016

Darnall, N. (2008). Creating a green brand for competitive distinction. ***Asian Business and Management***.

De Groot, J., & Steg, L. (2007). General beliefs and the theory of planned behavior: The role of environmental concerns in the TPB. ***Journal of Applied Social Psychology***, *37*(8), 1817-1836.

D'Souza, C., Taghian, M., Lamb, P., & Peretiatko, R. (2007). Green decisions: demographics and consumer understanding of environmental labels . ***International Journal of Consumer Studies***, *31*(4), 371-376.

Gallarza, M. G., Gil-Saura, I., & Holbrook, M. B. (2011). The value of value: Further excursions on the meaning and role of customer value . ***Journal of Consumer Behaviour***, *10*, 179-191.

Gao, Y. L., & Mattila, A. S. (2014). Improving consumer satisfaction in green hotels: The roles of perceived warmth, perceived competence, and CSR motive . ***International Journal of Hospitality Management***, *42*, 20-31.

Glasman, L. R., & Albarracín, D. (2006). Forming attitudes that predict future behavior: A meta-analysis of the attitude-behavior relation. ***Psychological Bulletin***, *132*(5), 778-822.

Graci, S., & Dodds, R. (2008). Why go green? The business case for environmental commitment in the Canadian hotel industry. ***Anatolia: An International Journal of Tourism and Hospitality Research***, *19*(2), 250-270.

Ha-Brookshire, J. E., & Norum, P. S. (2011). Wilingness to pay for socially responsible products: Case of cotton apparel. ***Journal of Consumer Marketing***, *28*(5), 344-352.

Hair, J., Anderson, R., Black, B., & Babin, B. (2016). ***Multivariate data analysis***. New York: Pearson Higher Education.

Ham, S., & Han, H. (2013). Role of perceived fit with hotels' green practices in the formation of customer loyalty: Impact of environmental concerns. ***Asia Pacific Journal of Tourism Research***, *18*(7), 731-748.

Han, H. (2015). Travelers' pro-environmental behavior in a green lodging context: Converging value-belief-norm theory and the theory of planned behavior . ***Tourism Management***, *47*, 164-177.

Han, H., & Kim, Y. (2010). An investigation of green hotel customers' decision formation: Developing an extended model of the theory of planned behavior. ***International Journal of Hospitality Management***, *29*, 659-668.

Han, H., Hsu, L. J., & Cheu, C. (2010). Application of the Theory of Planned Behavior to green hotel choice: Testing the effect of environmental friendly activities . ***Tourism Management***, *31*, 325-334.

Han, H., Hsu, L. J., & Lee, J. (2009). Empirical investigation of the roles of attitudes toward green behaviors, overall image, gender, and age in hotel customers' eco-friendly decision-making process . ***International Journal of Hospitality Management***, *28*(4), 519-528.

Han, H., Hsu, L. J., Lee, J., & Sheu, C. (2011). Are lodging customers ready to go green? An examination of attitudes, demographics ande co-friendly intentions. ***International Journal of Hospitality Management***, *30*, 345-355.

Han, X., & Chan, K. (2013). Perceptions of green hotels among tourists in Hong Kong: An exploratory study. ***Srvices Marketing Quarterly***, *34*(4), 339-352.

Henderson, J. C. (2007). Corporate social responsibility and tourism: Hotel companies in Phuket, Thailand, after the Indian Ocean tsunami . ***International Journal of Hospitality Management***, *26*(1), 228-239.

Hofstede Centre. (2017). *Country comparison*. Retrieved from Hofstede Centre: https://geert-hofstede.com/countries.html

Hofstede, G., Hofstede, G. J., & Minkov, M. (2010). ***Cultures and organizations: Software of the mind*** (3rd ed.). New York: McGraw-Hill.

Holcomb, Z. C. (2016). *Fundamentals of descriptive statistics.* New York: Routledge.

Hoyer, W. D., MacInnis, D. J., & Pieters, R. (2012). ***Consumer behavior***. Mason, OH: Cengage Learning.

Hu, H. H., Parsa, H. G., & Self, J. (2010). The dynamics of green restaurant patronage. ***Cornell Hospitality Quarterly***, *51*(3), 344-362.

Jalilvand, M. R., & Samiei, N. (2012). The impact of electronic word of mouth on a tourism destination choice: Testing the theory of planned behavior (TPB) . ***Internet Research: Electronic Networking Applications and Policy***, *22*(5), 591-612.

Kaltcheva, V. D., & Weitz, B. A. (2006). When should a retailer create an exciting store enviornment? ***Journal of Marketing*** , *70*, 107-118.

Kang, K. H., Stein, L., Heo, C. Y., & Lee, S. (2012). Consumers' willingness topay for green initiatives of the hotel industry. ***International Journal of Hospitality Management***, *31*, 564-572.

Kardes, F. R., Cronley, M. L., & Cline, T. W. (2011). ***Consumer behavior***. Andover, UK: South-Western Cengage Learning.

Keiningham, T. L., Cooil, B., Aksoy, L., Andreassen, T. W., & Weiner, J. (2007). The value of different customer satisfaction and loyalty metrics in predicting customer retention, recommendation, and share-of-wallet. ***Managing Service Quality: An International Journal***, *17*(4), 361-384.

Kim, Y. J., Njite, D., & Hancer, M. (2013). Anticipated emotion in consumers' intentions to select eco-friendly restaurants: Augmenting the theory of planned behavior. ***International Journal of Hospitality Management***, *34*, 255-262.

Kline, R. B. (2011). ***Principles and practice of structural equation modeling***. New York: Guilford Press.

Kontogeorgopoulos, N. (2004). Ecotourism and mass tourism in Southern Thailand: Spatial interdependence, structural connections, and staged authenticity. ***GeoJournal***, *61*, 1-11.

Kuminoff, N. V., Zhang, C., & Rudi, J. (2010). Are travelers willing to pay a premium to stay at a "green" hotel? Evidence from an internal meta-analysis of hedonic price premia. ***Agricultural and Resource Economics Review***, *39*(3), 468-484.

Kun-Shan, W., & Teng, Y. (2011). Applying the extended theory of planned behavior to predict the intention of visiting a green hotel. ***African Journal of Business Management***, *5*(17), 7579-7587.

Labbe, D., Pineau, N., & Martin, N. (2012). Measuring consumer response to complex perception: Scaling vs. categorization task. ***Food Quality and Preference***, *23*(2), 134-137.

Lee, J. S., Hsu, L. T., Han, H., & Kim, Y. (2010). Understanding how consumers view green hotels: How a hotel's green image can influence behavioral intetnions. ***Journal of Sustainable Tourism***, *18*(7), 901-914.

Litvin, S. W., Goldsmith, R. E., & Pan, B. (2008). Electronic word-of-mouth in hospitality and tourism management. ***Tourism Management***, *29*(3), 458-468.

Manaktola, K., & Jauhari, V. (2007). Exploring consumer attitude and behaviour towards green practices in the lodging industry in India . ***International Journal of Contemporary Hospitality Management***, *19*(5), 364-377.

Mendenhall, W., Beaver, R. J., & Beaver, B. M. (2009). ***Introduction to probability and statistics*** (13th ed.). Belmont, CA: Brooks/Cole.

Millar, M., & Baloglu, S. (2008). ***Hotel guests' preferences for green hotel attributes***. Retrieved from USF Hospitality Management: http://repository.usfca.edu/hosp/5

Muangasame, K., & McKercher, B. (2015). The challenge of implementing sustainable tourism policy: a 360-degree assessment of Thailand's “7 Greens sustainable tourism policy” . ***Journal of Sustainable Tourism***, *23*(4), 497-516.

National Statistical Office of Thailand. (2017). ***Thailand Average Monthly Wages 1999-2017***. Retrieved from Trading Economics: http://www.tradingeconomics.com/thailand/wages

O'Brien, R. M. (2007). A caution regarding rules of thumb for variance inflation factors. ***Quality and Quantity***, *41*(5), 673-690.

Ogbeide, G. (2012). Perceptions of green hotels in the 21st century. ***Journal of Tourism Insights***, *3*(1).

Oliver, R. L. (1993). Cognitive, affective and attribute bases of the satisfaction response. ***Journal of Consumer Research***, *20*(3), 418-430.

Oreg, S., & Katz-Gerro, T. (2006). Predicting proenvronmental behavior cross-nationally: Value, the Theory of Planned Behavior, and Value-Belief-Norm theory. ***Environment and Behavior***.

Oxford Business Group. (2016). *Tourism growth in Thailand gets back on track* . Retrieved from https://www.oxfordbusinessgroup.com/overview/resilient-rise-return-strong-growth-visitor-numbers-after-modest-decline

Page, S. J. (2009). ***Tourism management: An introduction*** (3rd ed.). Burlington, MA: Butterworth-Heinemann.

Phillips, W., & Jang, S. (2007). Destination image and visit intention: Examining the moderating role of motivation. ***Tourism Analysis***, *12*(4), 319-326.

Pianroj, N. (2012). Perceived customer loyalty toward green hotels: A study of international tourists in the South of Thailand. ***AU Journal of Management***, *10*(2-4), 40-50.

Plangpramool, S. (2012). Ecotourism sustainability of the commercial hotel: A case study of Pathumwan Princess Hotel, Bangkok, Thailand. ***International Journal of Asian Tourism Management***, *3*(2), 137-145.

PopulationPyramid.Net. (2016). ***Thailand 2016***. Retrieved from https://populationpyramid.net/thailand/2016/

Rise, J., Sheeran, P., & Hukkelberg, S. (2010). The role of self-identity in the Theory of Planned Behavior: A meta-analysis. ***Journal of Applied Social Psychology***, *40*(5), 1085-1105.

Rivis, A., Sheeran, P., & Armitage, C. J. (2009). Expanding the affective and normative components of the theory of planned behavior: A meta-analysis of anticipated affect and moral norms. ***Journal of Applied Social Psychology***, *39*(12), 2985-3019.

Royne, M. B., Levy, M., & Martinez, J. (2011). The public health implications of consumers' environmental concern and their willingness to pay for an eco-friendly product. ***The Journal of Consumer Affairs***, *45*(2), 329-343.

Salzberger, T., & Koller, M. (2013). Towards a new paradigm of measurement in marketing. ***Journal of Business Research***, *66*, 1307-1317.

Sánchez-Fernández, R., & Iniesta-Bonillo, M. Á. (2007). The concept of percieved value: a systematic review of the research. ***Marketing Theory**, 7*(4), 427-451.

Saunders, M., Lewis, P., & Thornhill, A. (2015). *Research methods for business students* (7th ed.). London: Pearson.

Schubert, F., Kandampully, J., Solnet, D., & Kralj, A. (2010). Exploring consumer perceptions of green restaurants in the US. ***Tourism and Hospitality Research**, 10*(4), 286-300.

Sniehotta, F. F., Presseau, J., & Araújo-Soares, V. (2014). Time to retire the theory of planned behaviour. *Health Psychology Review, 8*(1), 1-7.

TAT. (2010). ***Thailand green hotels and resorts***. Retrieved from Tourism Authority of Thailand: https://www.tourismthailand.org/fileadmin/downloads/others/E-mag_Green2010.pdf

Thanasuta, K. (2015). Thai consumers' purchase decisions and private label brands. ***International Journal of Emerging Markets**, 10*(1), 102-121.

Tilikidou, I., Delistavrou, A., & Sapountzis, N. (2014). Customers' ethical behaviour towards hotels. ***Procedia Economics and Science**, 9*, 425-432.

Tsai, C. -W., & Tsai, C. -P. (2008). Impacts of consumer enviornmental ethics on consumer behaviors in green hotels. ***Journal of Hospitality and Leisure Marketing**, 17*(3-4), 284-313.

Um, S., Chon, K., & Ro, Y. (2006). Antecedents of revisit intention. ***Annals of Tourism Research**, 33*(4), 1141-1158.

UNESCO. (2016). *Gross enrolment ratio, tertiary, both sexes (%)* . Retrieved from World Bank Databank: http://data.worldbank.org/indicator/SE.TER.ENRR

Vanhalewyk, G. (2016). ***Tourism statistics Thailand 2000-2016***. Retrieved from http://www.thaiwebsites.com/tourism.asp

Weathington, B. L., Cunningham, C. J., & Pittenger, D. J. (2012). ***Understanding business research***. Hoboken, NJ: John Wiley and Sons.

Weaver, D. (2006). ***Sustainable tourism: Theory and practice*** . Burlington, MA: Butterworth-Heinemann.

Wetzstein, M. E. (2013). ***Microeconomic theory: Concepts and connections*** (2nd ed.). New York: Routledge.

World Bank. (2016). ***International tourism, number of arrivals***. Retrieved from World Bank Databank: http://data.worldbank.org/indicator/ST.INT.ARVL

World Population Review. (2016). ***Bangkok population 2016***. Retrieved from http://worldpopulationreview.com/world-cities/bangkok-population/

World Travel and Tourism Council. (2015). ***Travel and tourism economic impact 2015: Thailand***. Retrieved from https://www.wttc.org/-/media/files/reports/economic%20impact%20research/countries%202015/thailand2015.pdf

WTTC. (2016). ***Travel and tourism economic impact 2016****: Thailand*. Retrieved from World Travel and Tourism Council: http://www.wttc.org/-/media/files/reports/economic-impact-research/countries-2016/thailand2016.pdf

Yeoh, E., Othman, K., & Ahmad, H. (2013). Understanding medical tourists: Word-of-mouth and viral marketing as potent marketing tools. ***Tourism Management***, *34*, 196-201.

Young, W., Hwang, K., McDonald, S., & Oates, C. J. (2010). Sustainable consumption: Green consumer behaviour when purchasing products. ***Sustainable Development***, *18*(1), 20-31.

Yusof, Z. B., & Jamaludin, M. (2013). Approaches of Malaysian green hotels and resorts. ***Procedia - Social and Behavioral Sciences***, *85*, 421-431.

Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2013). ***Business research methods*** (9th ed.). Mason, OH: South-Western Cengage Learning.

Biography

Name – Surname	Miss Napan Sinthusiri
Date of Birth	January 2, 1978
Address	Faculty of Business Administration, Rajamangala University of Technology Isan
Education	M.B.A., Ramkhamhaeng University, Thailand, in 2001 B.B.A., Chiang Mai University, Thailand, in 1999
Experience Work	Lecturer at the Department of Marketing, Faculty of Business Administration, Rajamangala University of Technology Isan, (2001 - present)
Telephone Number	+66-044-233-000 ext. 3640, 0898453899
Email Address	napan_s@mail.rmutt.ac.th, snapans@gmail.com

Declaration

This work contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution and, to the best of my knowledge and beliefs, contains on material previously published or written by another person, except where due reference has been made in the text.

I give consent to this copy of my dissertation, when deposited in the university library, being available for loan and photocopying.

Napan Sinthusiri