Decoding Behavioral Responses of Green Guests

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ABSTRACT

This thesis aims to present a unique perspective on the application of the theory of planned behavior (TPB) in the context of the green lodging industry via configurational modeling of three TPB dimensions in formulating hotel visitors' behavioral responses.

A questionnaire is employed to assess the objectives of the current study. In total, we approached and invited to participate, 320 guests at different green hotels between the period of June and July 2017. The analysis of the study was first carried out with structural equation modeling (SEM), then the configurational model was evaluated by employing the fuzzy-set qualitative comparative analysis (fsQCA), then finally the study's necessary predictor was assessed by means of the necessary condition analysis (NCA).

The study's result from the SEM showed that attitudes towards the behavior improved the intention to recommend green hotels and the continued intention to visit green hotels. Likewise, subjective norms boosted the study's guests' desired behavioral outcome. Perceived behavioral control increased the study's guests' continued intention to visit green hotels; however, it was not sufficient to predict the guests' intentions to recommend green hotels. The results from the fsQCA show that the conditions of equally the low and high levels of behavioral outcomes of green hotel guests can be explained by two causal models. Further, the necessary condition analysis results revealed that the attitude of green hotel guests towards behavior was

just the necessary condition of the two expected behavioral responses green hotel guests.

Keywords: Green hotel, Theory of planned behavior, Ethical consumption, Configurational model, Moral customer, Necessary condition

ÖZ

Bu çalışma, otel ziyaretçilerinin davranışsal tepkilerinin formüle edilmesinde üç TPB boyutunun yapılandırmalı modellemesi yoluyla yeşil konaklama endüstrisi bağlamında planlı davranış teorisinin (TPB) uygulanmasına benzersiz bir bakış açısı sunmayı amaçlamaktadır.

Mevcut çalışmanın amaçlarını değerlendirmek için bir anket uygulanmıştır. Haziran-Temmuz 2017 dönemleri arasında farklı yeşil otellerde 320 misafir ile iletişime geçilmiş ve anket için davet edildi. Çalışmanın analizi önce yapısal eşitlik modellemesi (SEM) ile yapılmış, ardından konfigürasyon modeli kullanılarak değerlendirilmiştir. Bulanık küme nitel karşılaştırmalı analiz (fsQCA), ardından son olarak çalışmanın gerekli öngörücüsü gerekli durum analizi (NCA) aracılığıyla değerlendirilmiştir.

Çalışmanın SEM'den elde ettiği sonuç, davranışa yönelik tutumların yeşil otelleri tavsiye etme ve yeşil otelleri ziyaret etme niyetlerini geliştirdiğini gösterdi. Benzer şekilde, öznel normlar, çalışma misafirlerinin istediği davranışsal sonucu artırdı. Algılanan davranışsal kontrol, çalışmanın misafirlerinin yeşil otelleri ziyaret etme niyetini artırdı; ancak misafirlerin yeşil otelleri tavsiye etme niyetlerini tahmin etmek yeterli değildi. FsQCA'nın sonuçları, yeşil otel misafirlerinin eşit derecede düşük ve yüksek davranışsal sonuçlarının koşullarının iki nedensel modelle açıklanabileceğini göstermektedir. Ayrıca, gerekli durum analizi sonuçları, yeşil otel misafirlerinin davranışa yönelik tutumunun, yeşil otel misafirlerinin beklenen iki davranışsal tepkisinin sadece gerekli koşulu olduğunu ortaya koymuştur.

Anahtar Kelimeler: yeşil otel, planlı davranış teorisi, etik tüketim, yapılandırmalı model, ahlaki müşteri.

DEDICATION

This thesis is dedicated to my loving mother

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Chapter 1

INTRODUCTION

This chapter of the thesis explains the research approach and the deductive rationale for the study. The chapter also presents the purpose and objectives of the thesis with a firm focus on its contribution to management and business research. Green hotels, the theory of planned behavior, intention to recommend as well as the intention to stay are the focal variables in the present thesis. The approach for sample selection, data collection, analysis, and brief results are also presented in this chapter. Lastly, the structure or flow of the thesis is also included in this chapter.

1.1 Research philosophy

Preferred behavioral outcomes from hotel guests and visitors are amongst the most important predictors of success for hotels with green practices, as they significantly add to the performance of these hotels (Gil, Jiménez, & Lorente, 2001). A few researchers recognized visitors' loyalty as part of the critical purposes of the managers of greens (Wu, Cheng, Chen, Hong, *et al*., 2018; Yusof, Awang, Jusoff, & Ibrahim, 2017). To frame the behavioral intentions of people, scholars have to adopt a very concrete scientific theory to give an adequate explanation of the conceptual model that has been proposed (Olya & Gavilyan, 2017).

Green hotels can be described as environmental-friendly facilities that offer lodging and allied services and that adopts ecologically compliant practice or policies (such as in energy-saving and water savings and recycling solid waste) to help care for the

planet (Han, Hsu, & Sheu, 2010, p. 325). As suggested by Cyprus Tourism Organization, hotels with green practices take upon themselves the responsibility to minimize the negative impact of their operations on the environment as well as maximize the benefits of green practices by highlighting pro-environmental actions and sustainable development policies.

In other words, the green hotel implements a variety of practices and strategies with a core desire to reduce the hazardous impact of lodging property on the environment (Verma & Chandra, 2018). Such hotels make sustainability a critical element of the vision and approach towards service delivery. Precisely, such hotels are dedicated to meeting the required standards for water conservation, energy efficiency, toxic and harmful substance disposal management, green products consumption, air quality management, wastewater management and treatment, noise pollution control, cooperation with local organizations, solid waste management, environmental policies and practices for hotel operations and even green human resource management.

Currently, the growing concerns for eco-friendliness among users of hotels in increasingly affecting the demand for green hotels. Rahman and Reynolds (2016) pointed out that consumer behavioral decisions are tilting against staying in traditional hotels basically due to the agitation for environmental protection becoming a mainstream concern among scholars and industry practitioners.

1.2 Theoretical framework

The theory of planned behavior (TPB) is a well-known model and definitely one of the most cited theories that seek to explain human behavior (Sussman & Gifford, 2018). TPB posits that three base components (or constructs) influence human intentions and

that subsequently, these intentions influence human actions (Ajzen, 1991). The three base components of TPB are as follows: perceived control over the behavior (PBC), subjective norms regarding the behavior (SN), and attitudes toward the behavior (ATT). In TPB, intentions are the likelihood that an individual will act in a particular way (Ajzen and Fishbein 1975); attitude here refers to negative or positive comments and perspectives of individuals as regards events, objects, and people (Ajzen and Fishbein 1975); subjective norm refers to the consensus reach explicitly or implicitly regarding behavior by the reference group; and perceived behavioral control denotes the perception of an individual of the availability of the opportunity, resources as well as the ability to perform a particular behavior. With perceived behavioral control, when actors perceive that they have more control, it is expected that it will increase their behavioral intentions which in turn influences their behavior. Ever since it has been refined late in the 1980s (Ajzen, 1985), quite a lot of scholars have applied, expanded, reversed, explored or decomposed the TPB to predict human behavior in the domains of environmental sustainability, health, marketing and others. In these different fields of study, scholars usually simultaneously measure intentions, perceived behavioral control, subjective norm, and attitude as predictors of a certain self-reported behavior before employing structural equation models equations or regression to fit the TPB theory to the data that have been obtained.

The TPB is frequently used to model green hotel guests' behaviours (Line & Hanks, 2016; Teng et al., 2018). Specifically, Teng et al. (2018, p. 1138) stated:

> TPB provide [s] green hotel practitioners with an important implication that investigating consumers' behavioral intention and attitude towards the green hotel would be the first step to predict whether consumers would actually choose green hotels to stay.

Many researchers believe that TPB needs to be decomposed, merged, or extended to support conceptual models for indicating customers' behavioral intentions (Dahiya & Gayatri, 2017; Heesup Han, 2015; Hsu & Huang, 2012; Kiatkawsin & Han, 2017; López-Mosquera & Sánchez, 2012).

These studies have indicated that the investigation of the net effects of three TPB indicators –attitude towards the behavior, subjective norms, and perceived behavioral control – is insufficient for predicting the expected behavioral intentions of moral customers. In line with studies that have tried to apply dissected, merged or extended versions of the TPB, this study intends to offer a deeper insight into the TPB for modelling the behavioral intentions of green hotel guests using the set-theoretic analytical approach of fuzzy-set qualitative comparative analysis (fsQCA). In other words, a sufficient combination of the three TPB variables is explored to predict the expected behavioral intentions of green hotel guests. Along with noting the sufficient net effect and combination of the three TPB variables, this is to our knowledge, the first attempt in the literature to identify the necessary factors of TPB for achieving desired behavioral intentions among green hotel guests.

FsQCA is one of the most prominent methods of Qualitative Comparative Analysis (QCA) that developed from sociology and political science as a methodology characterized by causal asymmetry and applicability to a rather smaller sample size compared to other methods due to its causal conditions or their combinations that can result in an equifinal outcome (Ragin 1987, 2000; Rihoux et al. 2013). FsQCA has been widely used with growing frequency in management as well as in business research (Schneider and Wagemann 2012; Rihoux et al. 2013; Denk and Lehtinen 2014).

This study contributes to the extant body of knowledge by investigating the application of TPB to guest demands for green hotels by employing the fsQCA. By using TPB within a green context, the thesis extends the relevance of TPB in predicting behavioral outcomes in themed-focused hospitality samples. In addition the novel fsQCA method offers a fresh look at the TPB in the green consumer behavior field of study.

1.3 Purpose of the study

This study applies a multi-analytical approach attempting to address three research questions (RQs): RQ1: How attitude towards the behaviour, subjective norms, and perceived behavioural control affect behavioural intentions of guests of green hotels? RQ2: How do the combinations of attitude towards the behaviour, subjective norms, and perceived behavioural control lead to behavioural intentions of guests of green hotels? And RQ3: What are necessary conditions to stimulate behavioural intentions of guests of green hotels? This study aims to evaluate the sufficient effects of three TPB variables on the intention to recommend and continue to use green hotels using structural equation modelling (SEM). This empirical study uses SEM to explore the sufficient combination of the three TPB variables to explain conditions leading to the guests' desired behavioral intentions. Although SEM and configurational modelling investigate a sufficient net effect and combinations of three TPB variables (i.e. causal recipes), we use the necessary condition analysis (NCA) to identify which TPB factor(s) are necessary to achieve the desired behavioral responses from green hotel guests. To the best of our knowledge, this is the first empirical study to model TPB using three analytical approaches (i.e. SEM, fsQCA and NCA), which provide a deeper insight into the behavior of green hotel guests.

In all, 297 guests agreed to complete the survey. The field administration of the survey spanned from 7 June to 28 July 2017. Questionnaires with more than 20 percent of data missing were dropped from the study sample (Hair et al., 2014). The response rate was 87 percent, with 260 valid cases used for data analysis.

Management of green hotels in Cyprus was contacted with letters to seek their permission to conduct the study in their firms. The primary researcher received the requested permission. Although management gave permission to the researcher, they, however, did not allow the researcher to interact with the employees directly. So, the supervisors coordinated the data collection process with the instructions of the researcher.

Filled questionnaires are returned in sealed envelopes. Questionnaires received in unsealed envelopes are discarded from the pool of cases assessed. By sealing the envelope that respondents used in submitting their filled questionnaire, we guarantee their confidentiality and anonymity. The researcher used a self-administered questionnaire set for the collection of data. To reduce common method variance, the anchors for items from different construct were different. Additionally, the questionnaire included a cover letter with information such as "There are no wrong or right answers in this questionnaire."

In accordance with the extant literature (e.g., Olya, Alipour, & Gavilyan, 2018; Olya & Gavilyan, 2017), the present study draws on the strength of the FsQCA approach to evaluate the study. The study's measures' validity and reliability were assessed in addition, the scales' items' internal consistency was also checked with composite reliability scores (CR) as well as the Cronbach's alpha (α) scores. Further, to check for

potential common method bias in the study, Harman's single-factor analysis was carried out to check with SPSS software. The result showed that there was no general factor with a high R^2. This result points out that the measures of the study do not bear any significant common method bias risk. Further, a confirmatory factor analysis (CFA) was carried out to evaluate construct validity and fit.

Following the test for the study measures' psychometric properties, asymmetrical and symmetrical statistical methodical approaches were both used to test the study's proposed configurational and structural models, respectively. Asymmetrical techniques (such as fsQCA) and symmetrical (such as SEM & regression) are different primarily in the assumed connection that there is between predictors and outcomes.

In this current study, three basic components of the TPB are contemplated as possible predictors to two outcomes which are conceptualized as behavioral intentions of hotel guests. Underlining the symmetrical technique is the thought that low or high predictor scores would relate with low or high outcome scores, while Underlining the asymmetrical technique is the thought that, low/high predictor scores don't really have to link with the low/high scores of the outcome. Current scholarship in tourism and hospitality agrees with latent rational (e.g. Olya, Bagheri & Tumer, 2019; Pappas, 2017). These scholars all identify that a set of predictors' combination need to be regarded as an 'X'- a casual model in order for it to predict a 'Y'- a certain outcome. Practically, it is by the same token of the above argument that people consider, simultaneously, a number of important conditions when making decisions (Olya & Al-ansi, 2018). For this reason, a pattern developed based on the symmetrical thinking is more unlikely to occur in the case a combination of 'X' is used as a predictor of an outcome 'Y'.

1.4 Thesis plan

The introduction chapter included the research philosophy, the rationale of the study, the purpose of the thesis, and the theoretical underpinnings. The chapter also contained a methodical overview of the study. In general terms, the strategic approach to sampling of the respondents, and data collection are explained.

Chapter 2 which is titled literature review provided detailed information and elaboration of existing studies in the research domain of the thesis subject. Specifically, the theory used as the framework for the study (TPB), and all the construct under investigation are highlighted in detail in this chapter.

In chapter 3, the thesis covered the research design. Issues like sample selection, data collection, measurement of constructs, and analysis of data are explained. Specifically saying, the chapter focused on the methodology of the study.

In chapter 4, the thesis presented the results of the study. Issues such as demographic details of participants, the test of data quality, and eventually, the result of hypothesized relationships are given.

In chapter 5, the observations of results are discussed. The contribution of the study to literature and industry are also espoused. Concerns with research designs and opportunities for future research avenues are also given. Lastly, the chapter closed with concluding remarks which also signified the end of the thesis.

Chapter 2

LITERATURE REVIEW

2.1 The theory of planned behavior

The theory of planned behavior (TPB) is essentially an extension of Fishbein and Ajzen (1975) as well as Ajzen and Fishbein's (1980) theory of reasoned action (TRA). The extension of TRA was required due to its inability to explain certain behaviors in which individuals do not have full volitional control (Ajzen, 1991). In Figure 1 below is a depiction of the TPB in a structural diagram form. Just as in the original TRA, a fundamental element in the TPB is the intention of the individual to carry out a certain behavior. It is assumed that the motivational elements that influence certain behaviors are represented by the individuals' intentions. Ajzen, (1991) argues that intentions point to the extent to which individuals are set to carry out a particular action; or how much effort individuals are willing to wield so as to carry out a certain action.

In general, it is expected that the stronger the intention is to carry out a certain behavior, the more likely should its performance be. TPB however insists that it is clear that a behavioral intention could only be expressed in a behavior provided the said behavior is completely under the volitional control of the actor. That is, behavioral intentions can only be expressed if actor can choose at will not to perform or to perform the said behavior. While certain behaviors might very well satisfy this prerequisite, to carry out these behaviors also largely depends (at least to certain extent) on some non-

motivational factors such as the availability of essential resources and opportunities the cooperation of others, necessary skills, money, like time, etc. (Ajzen, 1988).

These factors jointly make up an individuals' real control over a behavior. The degree to which an individual has the prerequisite resources and opportunities, and plans to carry out the behavior, is the degree to which the individual would be successful in doing so. The notion that that carrying out a certain behavior is contingent on both ability (that is, behavioral control) and motivation (that is, the intention) is the crux of Ajzen's argument (Ajzen, 1991). The supposition is made, usually, that ability and motivation work together and jointly influences behavioral achievement. As a result, intentions are projected to affect behavioral performance to the degree that individuals have behavioral control. On the other hand, the performance of behavior ought to increase with behavioral control to the degree an actor is motivated to try (Ajzen, 2002).

Predicting and explaining behavior is the essential objective for developing TPB just as it is the purpose of other intention models such as the Davidsson's (1995) model, the entrepreneurial potential model (Krueger & Brazeal, 1994) and Entrepreneurial event model (Shapero & Sokol, 1982). All the same, TPB is considered to be much more influential and superior to other framework that seeks to explain and predict behavioral intentions (Fayolle, Liñán, & Moriano, 2014; Liñán & Fayolle, 2015). The TPB model is said to offer a more coherent and enabling framework for an improved prediction and understanding of intention (Krueger, Reilly, & Carsrud, 2000). The applicability of TPB to a number of fields including consumers' green behavior has been reported in the literature.

The TPB's wide usability in empirical research to investigate a number of subjects and to explore the process of behavioral intentions to the behavior itself is evident. For example, TPB has been used to study customers' environmental-friendly behaviors like the adoption of hybrid electric vehicles, lodging in hotels that are pro-environmental or environmentally friendly, and green-product consumption (Han, 2015; Han, Hsu, & Sheu, 2010; Paul, Modi, & Patel, 2016). Likewise, TPB has been employed in empirically predicting and explaining other consumer-related behavioral intentions and behaviors such as word of mouth, loyalty, repurchase and recommendation (Chen, 2016; Curras-Perez, Ruiz-Mafe, & Sanz-Blas, 2014; Mao & Lyu, 2017; Ogunmokun & Timur, 2020).

Based on the TPB model, the intention to perform a certain behavior is driven by three antecedents that are conceptually independent. These antecedents are the individual's attitudes toward the behavior, Subjective Norms, and Perceived Behavioral Control (Ajzen, 1991). One's attitude towards a certain behavior speaks of the individuals' positive or negative overall appraisal or evaluation of the particular behavior (Ajzen, 2002; Ajzen & Fishbein, 1980). Before the intention to carry out a behavior is formed, people tend to carry out assessments or evaluations against or in favor of the behavior. Thus a favorable attitude concerning a certain behavior (e.g. starting a business), is developed when the behavior is assumed to have desirable and beneficial imports (Liobikienė, Mandravickaitė, & Bernatonienė, 2016).

Subjective Norms refer to the summation of people's perceptions about what ways individuals who are influential in their lives think about them carrying out or engaging in a certain behavior, (e.g. starting a business) (Fishbein & Ajzen, 1975; Taufique & Vaithianathan, 2018). Although some scholars have argued that subjective norms have

the weakest predictor of intention (Ogunmokun & Timur, 2020; Tarkiainen & Sundqvist, 2005), a handful of other scholars have found that subjective norms strongly influenced behavioral intentions (Van, Marise, Born, Taris, & Van Der Flier, 2006). Drawing on Ajzen and Fishbein, (2004), TPB's three precursors are equally sufficient to predict behavioral intentions, but each of the precursor's relative significance differs based on the context of such intention. That is, in certain contexts, just one or two of the TPB precursors would be required to predict the intentions.

Perceived Behavioral Control refers to individuals' opinion of how difficult or easy it is to carry out a certain behavior (e.g., starting a business). The perceived behavioral control also refers to the degree of volitional control individuals have over the performance of certain behaviors (Ajzen 1991). The perceived feasibility (Shapero & Sokol, 1982), self-efficacy (Bandura, 1977, 1986), and Perceived behavioral control (Ajzen, 1991) constructs are considered very similar and close to each other. However, (Ajzen, 2002) maintains that between perceived behavioral control and self-efficacy, a number of differences exist. For example, perceived behavioral control take account of not just the feeling of being capable, but it also takes account of the actor's opinion of their ability to control their performance of the behavior. It has been confirmed that perceived behavioral control when compared to self-efficacy and feasibility, it wields a stronger impact on intention (Fayolle et al., 2014; Krueger Jr, Reilly, & Carsrud, 2000).

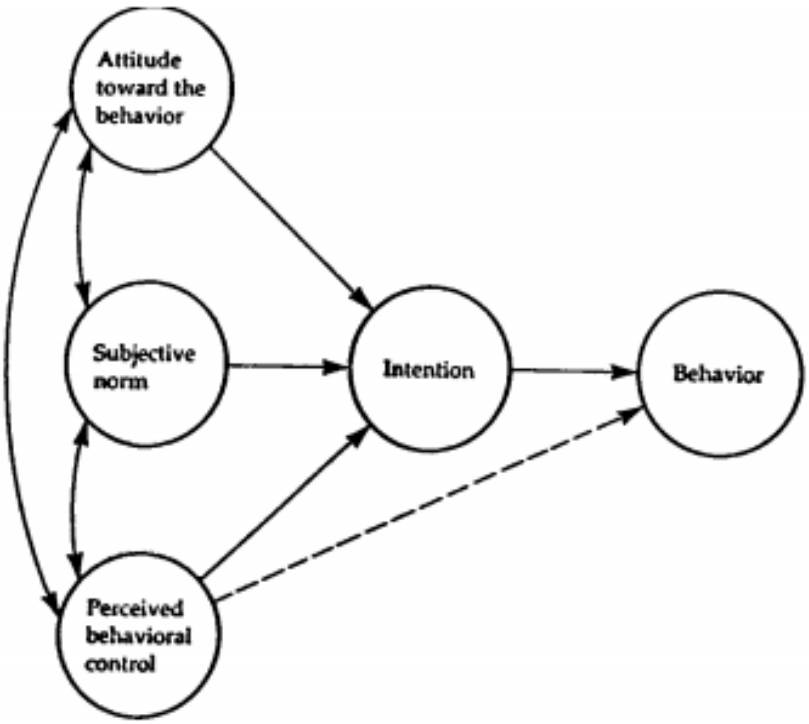

Figure 1: Theory of Planned behavior framework (Ajzen 1991)

The TPB is commonly used to elucidate customers' behavioral intentions in the green consumption context, which is a complex social phenomenon. This complexity is caused by the non-linear, fuzzy, and dynamic processes of human decision-making and the complication of behaviours towards environmental issues (Lezak and Thibodeau, 2016; Olya and Akhshik, 2018). According to Lucas et al. (2008, p. 458): Socio-psychological models of individual behavior reveal environment-related behaviors to be complex and non-linear, shaped by multiple antecedent factors applying in different sequences and with different weighting to determine the end behavior.

The literature reveals that a chief area of interest for the application of the TPB in the area of leisure behaviors which of course includes tourism activities (Ajzen & Driver, 1992). As a result, there are numerous studies that have demonstrated that the

TPB supports the intentions to buy green services and products (Hsu, Chang, & Yansritakul, 2017; Yadav & Pathak, 2016; Yadav & Pathak, 2017). To tackle the complexity of green consumption, scholars have worked to break down, extend, modify and/or merge the TPB to offer a sensible, theoretical justification for their proposed conceptual models (Han, 2014, 2015; Hsu and Huang, 2012; Kiatkawsin and Han, 2017; Kim and Han, 2010; Lopez-Mosquera and Sánchez, 2012; Ryu and Jang, 2006). For example, Goh et al. (2017) extended the TPB with pro-environmental values to describe the behaviours of national park visitors. Similarly, Hsu and Huang (2012) modified the TPB with the inclusion of tourists' motivation to visit a destination and their actual behaviour. They advised that the association of tourists' motivation with their pro-environmental behaviour was not tenable.

In halal marketing studies, TPB has been employed to study human intentions as well as behaviors. For example, among Turkish immigrant Muslims in Germany, the accessibility of halal meat, the motivation to comply, a personal positive attitude concerning the consumption of halal meat, and an individual's perceived control over the consumption of halal meat predict the intention to purchase and consume Halal meat (Sherwani, Ali, Ali, Hussain & Zadran, 2018). Likewise, knowledge has been reported to moderate the relationship between attitude, perceived behavioral control and subjective norms, and the willingness to pay for halal transport costs (Ngah, Jeevan, Salleh, Lee, & Ruslan, 2020). In the same way, Ali, Sherwani, Ali, Ali, and Sherwani (2020) examined the role played by cultural dimensions in the relationships between the base components of the TPB and the intentions of muslins in China to purchase halal food products.

In the study of consumers' behaviors in the luxury goods industry, Jain, Khan, and Mishra (2017) reported that subjective norm is the most significant determining factor (followed by attitude) in consumers' purchase intentions of luxury fashion goods. They found that consumers' perceived behavioral control has no significant association with purchasing intentions of luxury goods, though there was a high positive association with consumers' real purchasing behavior. Equally, TPB has been employed to explain the role of ethics in predicting the intention to counterfeit luxury goods (Zaman, Jalees, Jiang & Kazmi, 2008). Similarly, an extended TPB has been used to elucidate the intention of Indonesian consumers to buy counterfeit luxury products revealing that value consciousness (an extended competent of the TPB model) predicts the intention to purchase counterfeit luxury products (Patiro & Sihombing, 2014).

Even though TPB was at first posited for the study of the behaviors of individuals, in recent years, it has also been successfully applied to examine the behaviors of organizations. For example, TPB was employed by Koropp et al. (2014) to investigate the financial choices of family firms and, Dodor and Rana (2009) used TPB to examine the intentions of schools to offer e-commerce education. In study contexts where TPB has been employed to describe behaviors of organizations, each organization is taken to be an independent body in which the decisions of the management made either collectively or personally, directs the organization's behavior (Gavetti et al. 2012). As a result, scholars were able to generalize the use of TPB by employing the terms entity and actors which are more inclusive expressions and substitutes for terms used in TPB studies of individual behavior. Further, in the field of construction, a number of scholars have made an effort to apply TPB. For instance, Aibinu and Al-Lawati (2010) designed a structural model based on the TPB to categorize important variables that determine construction firms' willingness to take part in e-bidding. Likewise, Cheng

(2016) developed a framework based on the TPB to predict the intention of an owner to adopt a partnering contract. Furthermore, TPB was employed in summarizing the determinant elements of project organizations' alternative dispute resolution (Lee, Yiu & Cheung, 2016).

Accordingly, TPB has been adopted in several scientific studies across diverse fields and social behaviors **(**Klobas and Clyde, 2000; Bledsoe, 2006) and it has proven to be applicable for explaining different behaviors of consumers (Son and Jin, 2013; Sanyal *et al.*, 2014).

In this study, TPB is applied to the study of pro-environmental behaviors. Han et al. (2010) extended the TPB by adding environmentally friendly activities into the model to predict consumers' intention to visit a green hotel. They administrated an online survey among potential American customers and found that attitude towards the behavior, subjective norm, and perceived behavioral control positively affected visit intention. They found the level of consumer engagement in pro-environmental behavior did not moderate the associations of the three TPB elements with visit intention. However, Han et al.'s (2010) study was limited to the intention to visit a green hotel and did not include the behavioral intention of guests who already stayed in a green hotel.

A recent study extended the TPB by adding moral reflectiveness and conscientiousness to the proposed structural model using SEM with Indian lodging data (Verma and Chandra, 2018). They found that three elements of TPB plus two added factors improved young consumers' visit intention of Indian green hotels. Similarly, Chen and Tung (2014) extended the TPB model with perceived moral obligation and

environmental concern to formulate consumers' intention to visit Taiwanese green hotels. Using SEM, they found environmental concern positively improved three TPB dimensions. They also found perceived moral obligation and three TPB elements enhanced consumers' visit intention. Botetzagias et al. (2015) extended TPB with moral norms to predict the recycling intention of Greek people.

The SEM results showed that the moral norm, attitude, and perceived behavioural control increased the recycling intention of individuals. They found the subjective norm and demographic variables did not influence an individual's recycling intention. Lopez-Mosquera and Sánchez (2012) merged the TPB with the value-belief-norm (VBN) theory to elucidate visitors' intention to pay for the conservation of a suburban park. Similarly, Olya and Akhshik (2018) merged the TPB and VBN theories to model the pro-environmental behaviours of participants attending marine turtle tours. In the lodging industry, Han (2015) merged the TPB with VBN to predict the behaviours of green hotel guests. Kim and Han (2010) added a number of predictors (e.g. behaviour, normative and control beliefs and environmental concessions behaviours) to the TPB model to predict guests' intention to pay conventional hotel prices. Several other studies have used a stripped-down version of the TPB to explain models indicating customers' behavioural intentions (Lin et al., 2010; Sahli and Legohérel, 2015).

In the decomposed version of the TPB, attitude is formed by the three indicators of relative advantage, compatibility, and complexity; perceived behavioural control is measured by two indicators, efficacy and facilitating conditions; and subjective norms are represented by normative influences.

In spite of the TPB's usefulness, there exist certain deficiencies in the ability of the theory to predict the pro-environmental intentions and behaviors of individuals. One of such deficiencies is that all the TPB variables are rational predictors and TPB is a 'self-interest theory' (Bertoldo & Castro, 2016). In fact, in pro-environmental studies intention and behaviors are also influenced by pro-social motives and not just self-interest motives (Toft, Schuitema, & Thogersen, 2014). To elucidate further, drawing on the Norm activation model (NAM) (Schwartz, 1977), an individual could act in a pro-social manner just because that he/she perceives a moral norm to act like that. For this reason and similar ones, some studies have extended the TPB by adding the personal moral norm variable to deal with the limitations and include the pro-social interest into the TPB model. An additional limitation of the TPB is that it diminishes the roles of social norms in the intention and behaviors of individuals. Ajzen (1991) had posited that social norms can be categorized into two different aspects which are the descriptive norms and subjective norm. Subsequently, social norm has been often understood as subjective norm in the application of TPB. Nevertheless, the influence of subjective norm on the intentions and behaviors of individuals is somewhat restricted in the TPB, and as a result lessens social norms' explanatory power in the model (Zhang et al., 2014). In response to these and similar shortcomings of the TPB, some studies have tried to integrate descriptive norm into the TPB (e.g. Gao, Wang, Li & Li, 2017).

2.2 fsQCA in hospitality studies

Since its development by Charles Ragin, a social scientist, fsQCA has been a procedure for getting linguistic summarizations from data accompanying cases (Ragin 2000). fsQCA is an extended and quite recent version of the QCA often employed in contextual analysis to investigate how causal associations are dependent on contextual

conditions, and is also considerably closer to statistical methodologies (Denk & Lehtinen 2014; Mas-Verdú et al. 2015). Further, fsQCA is an approach that is diversity oriented proposing various possible alternative pathways to understanding an outcome's construct. In addition it is very well suitable for observing phenomena that is both complex and stochastic (small-n) (Kent 2005; Shipley et al. 2013; Henik 2015). Particularly, the investigation of situations with small-n where the total of cases may be considered too small for most of the familiar statistical analysis such as situation with ten to fifty cases, and this presents one of the strongest points of the fsQCA method (Ragin 2000; Fiss 2007). First and foremost, fsQCA was initially developed with studies that have a small sample size in mind, thus far, it been largely applied in studies with medium to small sample size. All the same, this methodology approach is likewise applicable to studies with large datasets and sample size (Cooper & Glaesser 2010). Despite the fact that in majority of fsQCA has been carried out mostly in sociological as well as political studies, recent scholarships in organizational research are tying configurational analysis together by employing fsQCA with complexity theory in management and business sub-fields (such as in strategic management, marketing and finance) thus expanding prior contributions in the field and demonstrating the branching out of disciplines (García-Castro et al. 2013; Rihoux et al. 2013; Woodside 2014).

FsQCA and complexity theory are able to provide an explanation that is more accurate, of how factors such as attitude, perceived behavioral control and subjective norm can predict green hotel customers' intention and behaviors. The reasoning behind the approach of FsQCA is that multiple pathways which are often combinations of predictor variables can result in the same outcome, instead of only one of the possible paths (Schmitt, Grawe, & Woodside, 2017; Wu, Yeh & Woodside, 2014). For this

reason, substitute asymmetric recipes of predictors are adequate; however no particular grouping is compulsory to correctly predict the pro-environmental intentions of green hotels' customers. Additionally, complexity theory suggests that the relationships that exists between constructs may be nonlinear with unexpected switches taking place, so much so that in some precise conditions, similar 'cause' may yield dissimilar outcomes (Urry, 2005, p. 4). Figure 4 illustrates the complex configuration under examination in the current study.

A fuzzy-set Qualitative Comparative Analysis (fsQCA) was employed in the analysis of the study's data. An fsQCA is employed for analysis examination of complex configurations (Pappas, 2019). Longest and Vaisey (2008) describes fsQCA as estimates of the likelihood of relationships to strongly influence the outcome of the study's interest, and recognizes likely combinations of binary sets caused from its antecedents. QCA is regarded as a technique of mixed methods, as it is founded on a blend of qualitative inductive reasoning via the analysis of specific cases and quantitative empirical testing (Longest & Vaisey, 2008; Pappas, 2019; Charles C. Ragin, 2000).

According to Kent and Argouslidis (2005), the logical complexity is established on the point that different results can be generated based on the diverse combinations of characteristics and via their combination with other conditions or events. The fuzzy Qualitative Comparative Analysis method enables, even at the individual level, the investigation of causal conditions and its possible combinations (Herbst, Reinartz, & Woodside, 2017). This claims that the analysis of predictive variables' net effects almost does not offer exact results capable of accurately explaining the causative models that results in the expected condition and outcome.

To sufficiently predict and explain behavioral outcomes is such a multifarious process. That is a number of multifaceted interactions between conjectural causation (i.e. antecedents) have to be seen as a causal model that is able of sufficiently explaining the circumstances resulting in a preferred outcome (Sehring, Korhonen-Kurki, & Brockhaus, 2013). The antecedents' multifaceted interaction is termed "configuration" and in addition, Rihoux and Ragin (2009) termed the process of recognizing this configuration has been termed "configurational modelling". The fsQCA, unlike the symmetrical approach to analysis, employs a separate configuration of causal antecedents to predict the conditions resulting in a set of preferred outcomes.

The fsQCA includes three stages of calibration, generating truth tables and a counterfactual analysis. In the calibration stage, Likert scale data (e.g. ranging from 1: strongly disagree to 7: strongly agree) is transformed to fuzzy data (ranging from 0: non-full membership to 1: full membership). In the next step, all possible conditions, called truth tables, leading to the expected outcome are calculated based on a Boolean algebra function and set theory. The truth table is refined according to the two probabilistic measures of coverage and consistency. In the counterfactual analysis step, conditions are minimized based on the existent knowledge (Ragin, 2008).

The fsQCA has been considerabely used to effectively contribute to the robustness of knowledge in the study of tourism and hospitality. Olya, Gazi, Aksal, and Altinay (2018) used the fsQCA to predict disabled tourists' behavioral intentions in the usage of peer-to-peer accommodations. In the study, the multifaceted possible combinations of factors such as convenience, levels of perceived charm, host attributes and demographic factors of the peer-to-peer accommodations were studied as capable of explainging the behavioral outcomes of disabled tourists'. Eid, Agag, and Shehawy

(2020) employed the value-belief-norm theory and the TPB to comprehensively study customers' proecess of making a decision to stay in a green hotel. Using the fsQCA, Pappas (2017) examined all the complex and attribute configurations influencing decisions of tourists as regards sharing economy tourist destinations recession affected and peer-to-peer accommodation. In addition, Yadav, Balaji, & Jebarajakirthy (2019) examined a model incorporating contextual factors into psychological factors as determinants of staying in a green hotel. They found out using the structural equaion modelling and fsQCA that a causal complex combinations of both contetxual and psychological factors influence the choice of customers to stay in a green hotel.

The current study employed an asymmetrical approach or fsQCA, to investigate the grouping of the three basic components of the TPB for calculating the study's both low as well as high scores in behavioral outcomes. Our study's configurational framework was accessed via Ragin's (2008) fsQCA V3.0. The current study adopts the recommendations Olya and Gavilyan (2017) to carry out the fsQCA in the hospitality and travel research using a survey. The current study likewise carried out an NCA to achieve a high level of intention to recommend green hotels as well as continued intention to use hotels with green practices and policies (Dul, 2016).

2.3 Traditional hotels vs green hotels

The growth of tourism worldwide is having remarkable impact on the environment globally and has thus turned out to be an important topic in hospitality research (Berezan, Raab, Yoo, & Love, 2013). Han et al. (2010) argue that customers are increasingly becoming selective of non-green services/products and thus prefer businesses that are environmentally responsible more to meet there personal and green needs. With the growing consciousness for environmental protection, growing

depletion of global resources and increased concerns for ecological conservation, a lot of hotel managers have the objective of running hotels that are capable of what has been termed the 3Rs (reduce, reuse and recycle). The 3Rs concept subsequently resulted in the green hotels or the eco hotels idea as an alternative to the traditional hotels (W. H. Lee & Cheng, 2018).

Han et al. (2010) defined green hotel as an environmental-friendly facility that adopts ecologically compliant practice or programs (such as in energy saving and water savings and recycling solid waste) to help care for the planet. Green hotels have been described by the Green Hotels Association (2016) as the kind of hotel management that enthusiastically carry out actions to reduce waste, conserve energy, and save water in an bid to care for the planet. Likewise, this kind of hotel management prudently put an eye on the specifics in all their different operations so as to find a way of reducing the organization's negative impact on the environment (W. H. Lee & Cheng, 2018).

In such organizations, reminders are often out in place to ensure uniformity in all their actions, regardless of their number, and without compromising their obligation to offer their guests with the good quality of service they should get. As suggested by Cyprus Tourism Organization, hotels with green practices take upon themselves the responsibility to minimize the negative impact of their operations on the environment as well as maximize the benefits of green practices by highlighting pro-environmental actions and sustainable development policies. Particularly, hotels with green practices and policies are dedicated to meeting the required standards for the disposal of harmful and toxic substance, the control of noise pollution, management of solid waste, waste water management, the management of air quality, conservation of water, green

product consumption, energy efficiency, green HRM and collaboration with indigenous groups as well as eco-friendly practices and policies for the hotel's general operations.

As you would expect, green hotels are likely to be enthusiastically sympathetic of any activities that care for the planet and shields it from more damages. Based on the above definitions, this study summarizes that green hotels are hospitality businesses that offer guests with a natural, healthy and comfortable lodging without compromising all the fundamental principles of sustainable management, environmental protection and reduction of negative environmental impact. Giving this definition, the green kind of hotel management will actively take a position of keeping and safeguarding the earth's natural ecosystems by reducing waste, saving energy, saving water, and by maintaining an energy-saving, environment-friendly hotel with management practices that are sustainable (W. H. Lee & Cheng, 2018).

In contrast to traditional hotels, green hotels commonly take practical environmental protection measures including energy and water saving strategiess, decreasing the supplies of disposable toiletries, ensure resource recycling, changing of sheets and towels less frequently, practice waste sorting, and using products with environment-friendly or green packaging and labels (Olya, Bagheri, & Tümer, 2019). All items will be listed eventually as a part of the specifications and standard practices of environmental protection in the hospitality industry (W. H. Lee & Cheng, 2018). For example, Taiwan out together a nationwide competition for green hotels in 2008 in order to create a national list of hotels that are environment-friendly; hotels that have shown distinction in the reduction of environmental footprint and impact in their operations and increase contribution their contributions to environmental

conservation. These hotels were ranked based on the aforementioned items (Lee & Cheng, 2018).

2.4 Motivations for demand of green hotels

Motivations have been described as the factors that determine an individual's action or behavior in a particular condition (Gollwitzer & Bargh, 1996). Social psychology studies have submitted that behavior is both situated and dynamic (Roeser & Galloway, 2002). Individuals have a tendency to show particular behaviors in a particular situation as a result of the influence of that situation on the actors' behavior (Beltman & Voet, 2007). Based on behavior's contextual nature, customers' behavior might be different across each customer's different settings. From a few number of earlier studies in green behavior (e.g., Clark & Finley, 2007; Miao & Wei, 2013) it was reported that different factors activate and motivate peoples' concerns for environmental protection and significantly spur them to engage in pro-environmental or green behaviors.

Take for instance, Clark and Finley, (2007) reported that environmental attitudes, self-perceived climate change knowledge and worry over future scarcities have a significantly and positively correlates with individuals' intention to engage in set practices to conserve water. Gregory and Leo (2003) argued that habit and situational factors (for example, income), personal involvement as well as environmental awareness are important antecedents of domestic green behaviors. In the same way, Chiu, Chi, Chang, and Chen, (2016) empirically established that an individual's perceived moral obligation enhances the likelihood of such an inidividual engaging in green and ecofriendly behaviors such as recycling. Green ecofriendly behaviors translate to green purchasing bahvaiors and demands.

Darnall, Ponting, & Vazquez-Brust (2012) argues that action-based knowledge is one of the major sources and motivations for green behaviors or demand. Earlier studies investigated the dynamics related to demand for green products and services and these studies stress that people's green demands is extremely contingent on such a one's knowledge of the germane environmental matters (Darnall et al., 2012; Junior, da Silva, Gabriel, & Braga, 2015; Mobrezi, 2016; Yadav & Pathak, 2016). Outside of green consumerism research, there have been abundant of report (e.g. Park, Mothersbaugh, and Feick (1994)) that a positive correlation exists between consumer behavior and knowledge.

Nevertheless, as it relates to green consumerism or environmental studies, the correlation is not so positive (Martin & Simintiras, 1995). Chan, (1998) for example, states that a few empirical evidences exist for a positive correlation between environmentally responsible purchasing behavior and ecological knowledge, despite the fact some others studies have also revealed that the relationship that exists is not significant. This mixed and equivocal empirical outcomes might be pointing to the fact that a more composite connection exists between green behaviors and demand and ecological knowledge or awareness (Chan, 1998; Darnall et al., 2012).

The environmental knowledge of consumers has an impact on their behavior through quite a few different means. First, Moisander (2007) stated that knowledge generally functions as an individual resource to decision making and also serves as a motivation for personal responsibility. In addition, knowledge impacts what people believe is within the sphere of their behavioral control (Bamberg & Schmidt, 2003). That knowledge both influences an individual's ability to make a green demand and the impetus to behave in an eco-friendly manner (Bamberg & Schmidt, 2003; Moisander,

2007). As a result, Darnall et al. (2012), posits that individuals conscious of the dire ecological concerns are increasingly probably buying green only. Drawing on Ajzen's (1988) TPB, consumers' intentions to buy green services or products are often affected by a few factors, examples of which are the individual's knowledge, their the capability to carry out the particular behavior and the opportunities the individual have to act in manner that is environmentally friendly (Manaktola & Jauhari, 2007).

Scholars have argued that there are two kinds of environmental knowledge; that is, action based knowledge as well general knowledge (Darnall et al., 2012; Miao & Wei, 2013). General knowledge speaks of customer's elementary awareness of environmental concerns. It comprises a general understanding of elementary concepts, issues and terminologies. Customers who do not have basic knowledge will not find it easy to appreciate environmental facts while customers who are more conversant with environmental and ecological issues are much more open to appreciate an extensive sort of environmental facts.

Customers that are ecologically aware as a result are able to make more prompt ecofriendly judgments that transform into green action or demand (Darnall et al., 2012; Moisander, 2007). On the other hand, knowledge that is action-based tells of customer's awareness of the actions necessary to alleviate ecological problems. This kind of knowledge consists of a consciousness of the imports on the environment of our individual actions as well as the sentience of the remedies capable of improving it (Darnall et al., 2012). This is, this kind of knowledge, that is action-based, is not just a personal resource like the first kind of knowledge that is rudimentary, but it as well impacts the customers' sense of individual obligation for green behaviors. This means

that, if an individual is conscious of the imports of his or her behavior, what naturally follows is an attribution of personal responsibility (Miao & Wei, 2013).

In addition to knowledge, about three decades of scholarly work has continued to explore what motivates green behavior and consumer demand. From these studies, certain motivating factors have been identified to drive green demand. They include demographic factors such as educational background, gender and age (Ye, Cai, & Huang, 2003). In addition, certain internal factors have been reported to also drive green demands. E.g. locus of control, attitudes, values, motives as well as responsibilities (H. Han, Hsu, Lee, & Sheu, 2011; Miao & Wei, 2013). External factors have also been reported to drive green demand.

Examples are social constraints, social incentives, economic incentives and institutional incentives (Kollmuss & Agyeman, 2002; Miao & Wei, 2013). In spite of the different amount of influences that have been identified to motivate green behaviors and demands, internal factors can be credited for a huge number of the variances in green demand and green consumer behavior (Darnall et al., 2012). For this reason most studies investigating green demand concentrates on internal factors, especially, motivations to consider green behavior in the hospitality context (e.g. Olya et al., 2019).

2.5 Consumer behaviour and attitudes

Behavioral intentions are regarded as one of the very critical factors in predicting the behaviors of consumers, in that a person's spirited intention to carry out a particular behavior is expected to lead to such an individual performing the behavior (Ajzen, 1991, 2002). This perception of behavioral intentions is established on Ajzen's (1991)

TPB model. In the model, intention is driven by an individual's attitude to a certain behavior, perceived control and subjective norms.

Han et al. (2010, 2011) and Kalafatis, et al. (1999) all found that the intention of consumers effectively predicts behaviors. Even though the descriptions of behavioral intentions are different through the extant literature, scholars in general come to an understanding that behavioral intentions are an individual's likelihood/readiness to carry out a particular behavior (e.g. Ajzen, 1991; Han & Ryu, 2006.; Oliver, 1999). Particularly, Oliver (1999) defined behavioral intention as a condition of high probability for an individual to be engaged in a certain behavior. In the hospitality studies, Han and Ryu (2006) described intentions to consumers to behave in a certain way as an acknowledged possibility of performing a buying behavior. An individual's intentions are pointers of such an individual's inclination to perform a particular behavior (Ajzen, 1991, 2002).

A person's intention could be unfavorable as well as favorable. Drawing on Zeithaml, Berry, and Parasuraman (1996), these kind of unfavorable or favorable behavioral intentions are parallel to these:

(1) The individual's intention to give negative or positive recommendations,

(2) The individual's unwillingness or willingness to pay more for green services

(3) Individuals' switch intention to other service providers or to repurchase from the current provider.

These three components have majorly been employed to measure customer's loyalty attitudes, as the three components reveal some level of dedication to a brand or a product (Yi & La, 2004).

Further, Blackwell, Miniard and Engel (2001) defined consumer behavior as the direct actions that has to do with disposing, consumption and obtaining of services and products, as well as the process of decision making that come before and after these activities. In the same way, Solomon (2015) described consumers' behavior as a process involving an exchange between two or more parties, which in this case could be the organization or an individual to receive and give something that is of value. These descriptions of consumer behavior lay emphasis on the significance of the psychological process consumers go through in the course of pre-purchase, purchase and post-purchase. A proper understanding of the concept of consumer behavior is very helpful and valuable for marketers in identifying how to enhance their promotional and marketing strategies in such a way that it would foster the delivery of better quality of services and products which would enhance customer decision making in the marketers' favor.

Consumer behavior has been connected to individuals' decision making. In the customary perspective of the process of decision making, consumers are involved in a five-step process:

(1) Problem recognition

(2) Information search

(3) Judgment

(4) Decision-making

(5) Post-decision processes

Consumers usually go through these steps one after the other. As soon as the buying decision is made, and the preferred goods and services are purchased, it result in the concluding stage of the process of decision making, which is the evaluation of the

outcome. The result of this evaluation has practical relevance for loyalty, on satisfaction and more forms of behavioral intentions of the customers toward the organization (Dixit, Lee & Loo, 2019).

Through these five phases of decision making, there are four factors that influence the consumer:

1. Internal
2. External
3. Marketing mix
4. Situational

Internal factors refer to individuals' cognitive psychology, also it is connected to the way in which consumers obtain, process and store information from their environment. So as to gather information, scholars insist on the fact that consumers rely on a combination of external and internal sources of information (Dixit, 2017). That is, the process of decision-making could possibly be influenced by personality, perception, attitude and personal value. The second factor that influences the process of decision making is external factors. These sources of information from those around the consumer which include: the consumers' sub-culture, the consumers' culture, reference group, social class and family members. The third factor that influences the process of decision making is situational factors. These are factors outside to the customer yet very related to the context within which the consumer is nested. Examples of such are the consumers' mood of the day, information searched and time pressure. Finally, the fourth factor that influences the process of decision making is market factors denote to the marketing mix. These are the strategies that marketers have employed to communicate their offerings to the potential consumers. These

strategies have been denoted as the four Ps of marketing mix. They are the place, price, product and promotion (Constantinides, 2006).

In the hospitality and tourism industry, consumer behavior studies often deal with the consumption behavior of the consumers of hospitality and tourism offerings; which are in most cases the tourists and guests. The development of the contemporary travel and lodging industry has been incentivized by the industrial revolution (Dixit, Lee & Loo, 2019). 19th century Thomas Cook has been credited to be the motivator of mass tourism by organizing packaged excursion and tours all through the European continent. At the present time, the tourism and hospitality industry now consist of food and beverage businesses, travel agency, cruise lines, transportation, theme parks, festivals, events and events planning, as well as all varieties of lodging and among others (Swarbrooke & Horner, 2007 p. 18).

Thus, the scholarship of consumer behavior within the tourism and hospitality industry would take account of pre-visit, on-site and post-visit of the guest and tourists to a certain destination (Dixit, Lee & Loo, 2019). In this field, psychographics have been employed in carrying out relevant consumer research in tourism and hospitality industry. Psychographics reveals individuals' perceptions, needs, values, opinions, interests, activities and everyday routine. In this area, consumer behavior studies are generally carried out using surveys and analytical research would mainly focus on market segmentation, attitudes and values of the target population. Psychographic constructs are quite suitable for identifying and segmenting the market (Dixit, Lee & Loo, 2019). This is because psychographics catalogue the opinions of individuals (what they think), their interests (what they want) and their activities (what they do). Examples of segmentations done based on psychographic in the tourism and

hospitality industry are: lifestyles, geography, ethnicity, race, income, social class, family structure, gender and age (Srihadi, Sukandar & Soehadi, 2016). It is not uncommon in the tourism and hospitality literature to trying and understanding tourist, visitors and guests of a particular destination based on these psychographic segmentations (Dixit, Lee & Loo, 2019).

Furthermore, in extant literature, scholars have suggested several models of consumer behavior stages. Aho (2001) introduced one that is quite applicable consumers' experience in the tourism and hospitality industry. Aho's model of tourists' experiences is made up of chain of seven phases of experiences that reflects the visitor/guest behaviors. These stages are:

1. Orientation
2. Attachment
3. Actual visitation and consumption
4. Evaluation of experiences
5. Storing
6. Reflection
7. Enrichment

The first phase of these series begins with the orientation phase where there is an awakening of expectations and interest. It could be expectations for memories and interests in practices as well as tangible artifacts. The first phase is followed by the phase called the attachment phase. In this phase, the interests and the expectations of the tourists are strengthened based on their decision to for the trip. The next phase which is the third stage is the actual visitation of the destination and the consumption of tourism/hospitality products and services. After this phase of consumption comes

the fourth stage which is phase where the consumers evaluates their experiences, make evaluations based on their previous experiences and substitutes available to them before they make deductions for prospective tourism decisions. This stage is trailed by the fifth phase Aho (2001) called the storing stage. There are essentially three types of storing: the mental storing (impressions, new meanings and affections), the physical storing (films, souvenirs and photos) and the social storing (social situation to remember and people). After the storing stage come the two final stages of reflection and enrichment. Reflection, the sixth stage is the recurrent presentations of consumers' experiences either spontaneously or in a staged manner. Finally, enrichment, which is the last stage of the consumer behavior chain within the tourism and hospitality context, is the consumers' exhibitions of souvenirs, photos, organization of networks as well as meetings to relish memoirs of excursions taken.

Technology's very swift development in the last years has significantly impacted the total tourists' consumption process. The social media, and as it is sometimes called; the Web 2.0, has drastically transformed the behaviors of tourist, visitors and guests (Dixit, Lee & Loo, 2019). Individuals have diverse consumption behavior after, during and before visiting a touristic destination. The alertness to online reviews, big data, social media, blockchain, Internet of Things & eco-tourism, are upsetting the outmoded way of tourist consumption. With the advent of smart phones, social media and similar platforms have become the foremost source of sharing information and for communication. On platforms such as the Instagram, Twitter and Facebook are channels where consumers now share their consumption experiences of travels, services and food, reviews and opinions as well as interact with other consumers. This form of consumer sharing is also described as the electronic word-of-mouth (e-WOM). This has likewise shaped the way consumer behavior is now understood and studied.

These technological advancements likewise support the advent of online reviews webpages like Expedia.com, Hotels.com, Booking.com and TripAdvisor which have considerable impact and roles on tourists' behavior, particularly their pre-purchase experiences and post-purchase experiences (Dixit, Lee & Loo, 2019). Tourists have a tendency to heavily rely on user-generated contents (available on online communities, online review websites, blogs and social media) to lessen their purchase risks. In consumer behavior studies in the hospitality and tourism industry, user-generated contents play very important roles in travel behavior and tourist information search further than any other source of information. This information source has been acknowledged as integral portion of the process of tourists' information search (Leung, Law, Hoof & Buhalis 2013; Cox, Burgess, Sellitto, & Buultjens, 2009; Xiang, Magnini, & Fesenmaier, 2015).

On the other hand, Wirtz, Chew, and Lovelock (2012) argued that within the service context in general, there are three consumer behavior stages. The stages are:

1. Pre-purchase
2. Service encounter
3. Post-purchase

Wirtz et al. (2012) further classified consumers' consumption of service into three major phases with each phase containing acts carried out by the service providers or the consumers. At the first phase of service consumption, for example, pre-purchase phase is initiated with the awareness of need, search for information, appraisal of substitutes to help in determining whether to buy or not to buy the service/product. During the course of appraising the alternatives, consumers would contemplate the

risks involved in the service purchasing and consumption. In this process, there are seven types of perceived risks:

(1) Temporal (time wastage as a result of delays)

(2) Functional risk (unsatisfactory performance outcomes)

(3) Financial risk (monetary loss, unexpected costs)

(4) Psychological risk (personal fear and emotions)

(5) Physical risk (damage to belongings or personal injury)

(6) Sensory risk (undesired impact on anyone of the five senses)

(7) Social risk (the way other people reason as well as respond to the purchaser)

As a unique form of consumer behavior, consumers within the tourism and hospitality sector of the service industry interacts with a lot of intangible elements of hospitality and tourism services throughout Wirtz, Chew, and Lovelock (2012) three central stages. For instance, tourist booking a hotel room or buying a travel package that can be regarded as investments without tangible return rate and the buying process is typically planned and carried out through chary thoughts and financial savings done over a long period of time (Moutinho, 1987). As a result of the distinct characteristics of services (heterogeneity, intangible, inseparability, perishability), tourists have a tendency to be extra careful. In addition, they have a higher sense of perceived risks and awareness so as to make sure that their purchases and trips are both memorable and good value for money. In a bid to reduce purchase risks and take full advantage of the values gained from the hospitality and touristic experience, tourists will undeniably make efforts to plan well for their trips. Therefore, technology has a more crucial role to play in facilitating tourists' (pre, post) purchase experiences. For example, guest and visitors to restaurant diners or an hotel will most likely search on the internet for

information to appraise the potential risks that are involved as well as to make comparison of attributes for alternative brands available before they make a final decision to purchase from the final chosen restaurant brand or hotel for subsequent consumption of its services and offerings.

Service encounter is the second stage of service consumption, and it denotes customers' direct interface with service providers (Wirtz, Chew, & Lovelock, 2012). The process of service encounter during consumption of service takes place during the course of the entire trip (destination visitation, restaurant dining and hotel staying). It is likewise significantly influenced by the information acquired from user-generated contents inundated with information from others' service encounters.

The stages of pre-purchase and service encounter have impacts on the tourists' subsequent post-purchase outcomes like loyalty, satisfaction and behavioral intentions. Currently, scholarship on behavioral intentions and customer satisfaction are still acknowledged as vital and practitioners have to understand this if they are to hopefully exceed or at least meet the expectation of their customers so they would contemplate revisiting in the future. In the service encounter phase of consumer behavior, customers also have a tendency to to share their experiences via word of mouth; electronically or otherwise. This is very influential as it significantly affects the future sales of hospitality and tourism companies when they are consumed by existing or even potential customers. Tourists and guests use the social media in the service encounter phase to share user-generated contents and it is considered as the most reliable sources of information sourcing by potential tourist in the pre-purchasing phase. It is deemed more reliable than mass media advertising, official tourism websites and travel agent (Fotis, Buhalis & Rossides, 2012). At this phase, service

providers interact with consumers the most; in the course of the service delivery and the process of consuming the services. If at this point, any mistake occurs, service providers have the opportunity to take actions to immediately correct and recover the service failure so as to restore the satisfaction of the customer satisfaction the customer leaves the destination or the premise of the service encounter and begin to take part in negative post-purchase behavior and outcome like negative word of mouth (Dixit, Lee & Loo, 2019).

Post-purchase is the last phase of consumer service consumption in the stage of consumer behavior. Hajli (2014) shown that social media has significant facilitating roles in consumers' social interaction, which often results in the leverage level of trust and purchase intentions. Satisfaction is one of the crucial behavioral outcomes of tourist, and Sanchez, Callarisa, Rodriguez and Moliner, (2006) has been dubbed it an aftermath of perceived value. In addition, dissatisfaction or satisfaction takes place immediately after the service consumption experience and/or purchase. The perceived value experienced post-purchase is a part of customer learning process, and it will determine customers' ensuing loyalty attitude. Sanchez et al. (2006) argued that the perceived value of customers after paying for tourism and hospitality services is considered as a dynamic variable; one whole experience that consists of pre-purchase, during purchase, during consumption and after-consumption evaluations. Sanchez et al. (2006) suggested the following six dimensions to measure a customers' perceived overall value of purchase:

1. A purchase's social value
2. A purchase's emotional value
3. Functional value prices
4. The purchased tourism package's functional value (quality)

5. The travel agency's contact personnel's functional value (professionalism)
6. The travel agency's functional value (installations)

Collectively, all six dimensions support hospitality practitioners in comprehensively evaluating their guests' total perceived value of their purchase. Together, a review of the stages of consumer behavior from diverse scholarly work reveals that in the hospitality and tourism industry, there is a greater involvement in service delivery.

Consumer attitudes towards green offerings in the hospitality industry are an interesting topic of scholar conversation in the field of hospitality studies. Researches that have investigated customers' attitude to green practices of businesses, have described participants particular inclination towards hotels that are environmentally friendly (Han et al., 2010), although this customers' were largely not willing to pay an extra cost for their so called preferences (S. Lee, 2011; Yadav & Pathak, 2017).

Circumstantial evidence and earlier studies all give the impression and suggest that behaviors that are pro-environmental heavily dependent on dynamics such as cost, comfort and/or personal comfort (Darnall et al., 2012). Nonetheless, the suggestions of the inconsistency in green behavior and attitude in the existing scholarly works are fundamentally anecdotal and observational. Customers are often enthusiastic about purchasing green products and services, but then again they are confronted with conflicts and constraints that form their attitudes and behaviors or intentions to adopt green behavior (Manaktola & Jauhari, 2007). For instance, customers might be willing to be environmentally responsible but then want to keep their present way of life. In addition, customers might be unprepared to let go of their convenience (Manaktola & Jauhari, 2007).

Chapter 3

RESEARCH METHODOLOGY

3.1 Study context

Globally tourists are on the constant lookout for international destinations with very attractive cultural and natural resources as well as an abundance of diversity in historic and valuable heritage. As a result, small islands like the Turkish Republic of North Cyprus (TRNC) provide the experience international tourists are in search for. Subsequently, tourists' environmentally responsible behavior research appears to examine international tourists' attitudes and perceptions of, and behavior towards the sustainability of (green) tourism so as to improve their experience devoid of tampering with the Island's environmental sensitivity (Ibnou-Laaroussi, Rjoub & Wong, 2020). For this reason this study employed the theory of planned behavior to advance the prediction of tourists' environmental responsible intentions in North Cyprus.

TRNC which makes up about half of the entire landmass of the island of Cyprus has conventionally been a destination of delight for tourist owning to its array of ancient as well as historic monuments, lovely weather, picturesque landscapes and geographic proximity to a number of other tourist destinations of international interest. In spite of suffering several and protracted land disputes in the last fifty years, in the 1980s, TRNC began focusing enormous efforts to boost and position tourism as her prime means of economic growth.

As a result, various types of tourists have been attracted to TRNC for various reasons; including young people in pursuit of advanced academic degrees at universities and colleges, regular family travelers on holidays, as well as skillful workers in pursuit of gainful employment. Accordingly, the small island nation is now struggling to meet the demands and needs of these tourists particularly those in pursuit of sustainable tourism. Similar to several other island nations, TRNC has very few natural resources and domestic market that is quite small (Mousari, Hoskara & Woosman, 2017). Hotels in TRNC have experienced quite a lot of issues often associated with tourism such as low service quality, lack of sufficient facilities and services, lack of decent hospitality and skilled personnel, high prices of hotel rooms, public transportation issues, low occupancy rates and seasonality (Altinay, 2000).

Based on the Tourism Ministry in Northern Cyprus (2017) statistics, the chief component of the nation's tourism industry is accommodation. The nation's tourism industry has about 136 facilities that offer lodging services (such as holiday villages, motels and hotels) to tourists. Together, these 136 facilities provide a total of 20,337 beds. In addition, a number of good hotels are scattered all over TRNC that offer special class, class TK, boutique hotels, regional house, apartment hotel, tourist bungalow, Classification T, tourist hostel and indoor facilities with all amenities such as a great number of restaurants, cafes, small-sized bars as well as gift shops owned by families (Mousari, Hoskara & Woosman, 2017).

Yet, a huge number of visitors to the Island nation of TRNC are interested in hotels and accommodations with green facilities and as a result are mild environmental impact, which reveals the growing significance of ecological degradation in the

holiday destination (Tajbakhsh, 2014). In a bid to act in accordance with tourists' environmental concerns, a lot of hotels attempt to contemplate the tourists green expectations and attitudes towards green accommodation facilities in their decision-making processes vis-à-vis marketing as well as management strategies (Lee, Hsu, Han, & Kim, 2010). Based on this, they make efforts to modify their operations and offerings to be more "green" as it conveys with it significant competitive advantage, attractiveness and sustainable environmental impact (Tajbakhsh, 2014). The ever growing predisposition of hospitality and tourism customers toward green services and offerings is a potent indication of environmentally friendly demands and incentive to more green-oriented research in the field particularly in such destinations as TRNC.

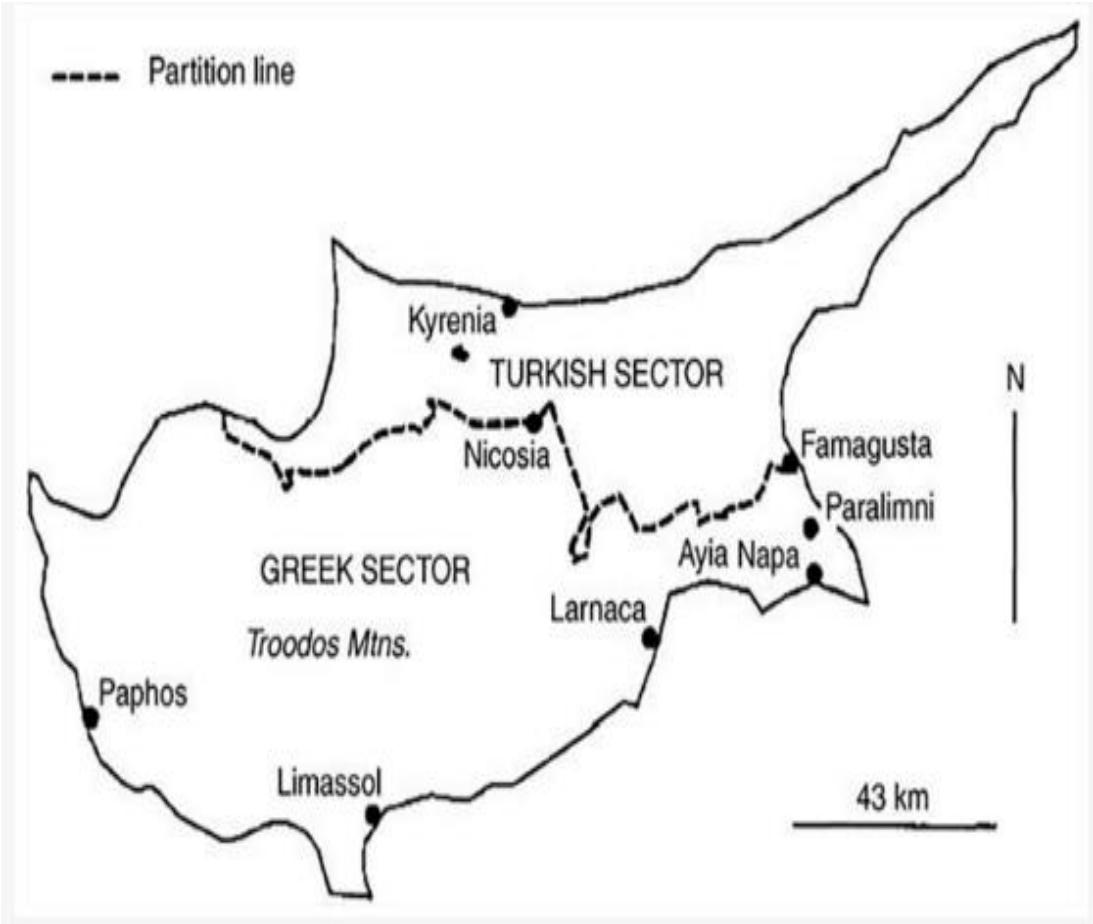

Figure 2: Map of Cyprus (source: Alipour and Kilic, 2005)

3.2 Instrument development

A scale of items for two behavioural intentions and three TPB variables was adapted from the extant studies. Continued intention to use green hotels was measured with three items extracted from Ajzen (1991), Ajzen and Fishbein (1980) and Han (2015).

Three items from Prud'homme and Raymond (2013) were used to gauge guests' intention to recommend green hotels. Four items regarding attitude towards the behaviour, three items related to perceived behavioural control and three items for subjective norms were adapted from Ajzen (1991), Ajzen and Fishbein (1980), and Han (2015).

All study variables except attitude towards the behaviour were measured using a seven-point Likert scale that ranged from 1 (strongly disagree) to 7 (strongly agree). Four items for attitude towards the behaviour were measured using a seven-point Likert scale ranging from 1 (bad/foolish/unpleasant/harmful) to 7 (good/wise/pleasant/beneficial).

Using different anchor labels for measuring the scale items is one procedural remedy that Podsakoff et al. (2003) recommend for controlling the potential threat of common method bias.

The questionnaire consists of three sections: an introduction, scale items for the five study variables, and guests' demographics. The purpose of the survey, statement on data confidentiality, voluntary participation and anonymity of all respondents are outlined in the introduction. Two experts from the hospitality industry and two academics from the tourism and hospitality discipline evaluated the questionnaire prior

to its use, and a pilot study with 15 hotel guests was conducted to ensure that all items were comprehensible to the respondents. The results of the pilot study confirmed that respondents had no difficulty understanding and responding to the questions.

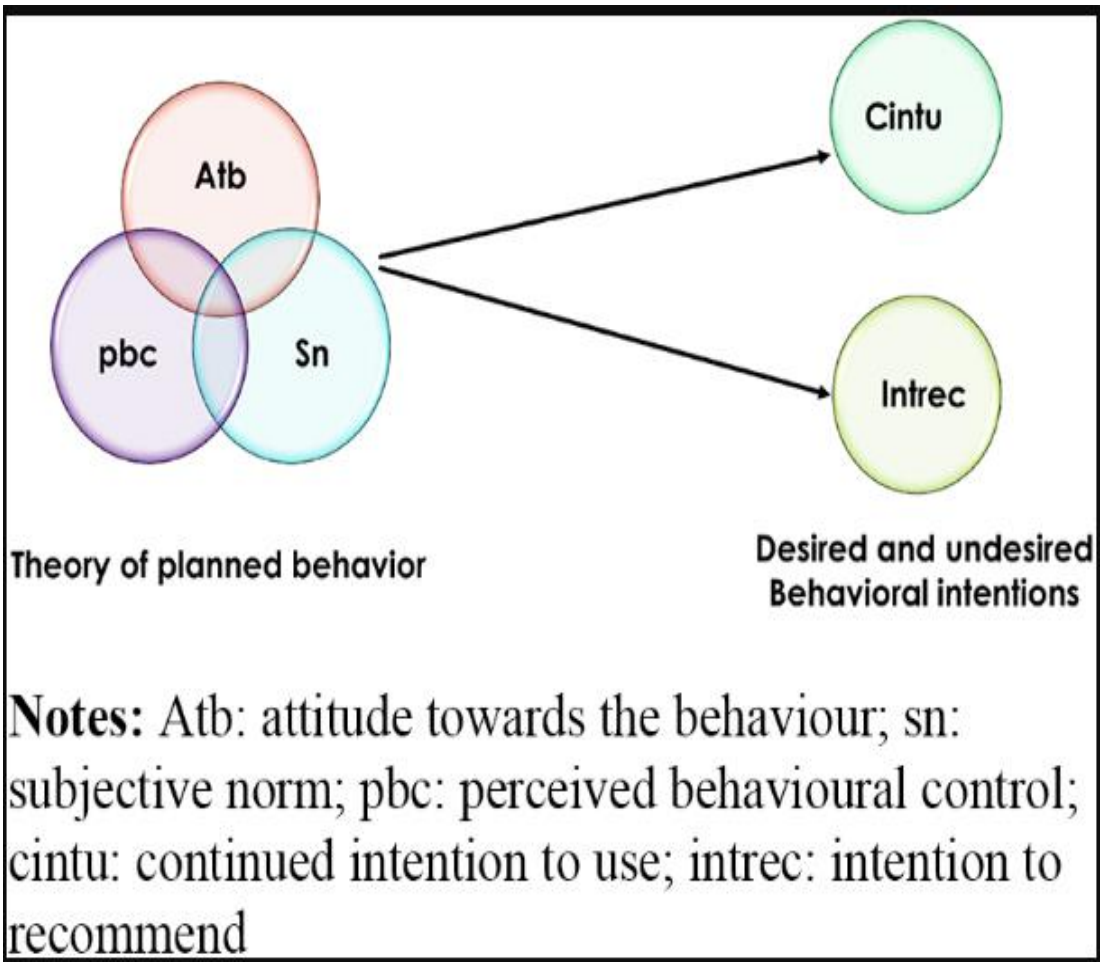

Figure 3: Proposed configurational model

3.3 Data collection

Data were obtained from North Cyprus, where tourism and hospitality are main drivers of the economy. The fragile ecosystem of this small Mediterranean island is under pressure related to tourism development (Olya and Alipour, 2015). This study used a questionnaire-based survey to collect data from the guests of green hotels that operated

under established mandatory sustainability standards for hotel establishments approved by the Cyprus Tourism Organisation.

To conduct the study, we first obtained permission for data collection from four green hotels before directly approaching guests and inviting them to participate in the survey. In all, 297 guests agreed to complete the survey. The field administration of the survey spanned from 7 June to 28 July 2017. Questionnaires with more than 20 per cent of data missing were dropped from the study sample (Hair et al., 2014). The response rate was 87 per cent, with 260 valid cases used for data analysis.

The questionnaire included items of continuance intention, intentions to recommend, perceived behavioural control, subjective norms and attitude towards the behaviour. Table 1 gives details of scale items, number of items and sources of items.

Table 1: Scale, number of items, and sources

Construct	Number of items	Scale anchor	Source
Continued intention to use	3	1 - 7	(Ajzen, 1991; Ajzen & Fishbein, 1977; Han, 2015)
Intention to recommend	3	1 - 7	(Prud'homme & Raymond, 2013)
Attitude towards the behaviour	4	1 - 7	(Ajzen, 1991; Ajzen & Fishbein, 1977; Han, 2015)
Subjective norms	4	1 - 7	(Ajzen, 1991; Ajzen & Fishbein, 1977; Han, 2015)
Perceived behavioural control	3	1 - 7	(Ajzen, 1991; Ajzen & Fishbein, 1977; Han, 2015)

Notes: All study variables except attitude towards the behaviour were measured using a seven-point Likert scale that ranged from 1 (strongly disagree) to 7 (strongly agree). Four items for attitude towards the behaviour were measured using a seven-point Likert scale ranging from 1 (bad/foolish/unpleasant/harmful) to 7 (good/ wise/pleasant/beneficial).

3.4 Analytical approaches

The reliability and validity of the study measures were evaluated and the internal consistency of the scale items was checked using Cronbach's alpha (a) and composite reliability (CR). Harman's single-factor analysis was performed to check the potential common method bias using SPSS. No general factor with a high R2 emerged, which indicates the study measures were not seriously threatened by common method bias.

A confirmatory factor analysis (CFA) was conducted to assess fit and construct validity. After testing the psychometric properties of the study measures, both symmetrical and asymmetrical analyses were applied to test proposed structural and configurational models, respectively. Symmetrical (e.g. regression, SEM) and asymmetrical techniques (e.g. fsQCA) differ mainly in their assumed association between the predictor (X) and outcome (Y).

In the present study, three TPB elements are considered predictors (X) and two behavioural intentions are the outcomes (Y). The assumption in symmetrical thinking is that high or low scores of predictors (X) link with high or low scores of outcomes (Y), whereas in an asymmetrical relationship, high/low scores of X do not necessarily connect with those of Y. Recent studies in hospitality and tourism support latent rational (Hsiao et al., 2015; Olya et al., 2018; Pappas, 2017), as they recognise that a combination of the predictors must be considered a casual model (X) to predict a given outcome (Y). In this vein, Olya and Al-ansi (2018) argue that individuals make decisions while simultaneously considering several influential criteria. Therefore, a symmetrical pattern is less likely to emerge when a combination of X is used to predict Y.

Symmetrical analyses show the net effect of X on Y, whereas asymmetrical approaches reveal a combination of the factors called causal recipes that explain the model that indicate the outcome. We believe both symmetrical and asymmetrical techniques are helpful, as they offer different insights of the social phenomena. This study used SEM or a symmetrical analysis to test the net effect of three TPB dimensions on continued intention to use and recommend green hotels. The CFA and SEM were conducted using AMOS V25.0. This study applied an fsQCA or an asymmetrical approach, to explore the combination of the three TPB dimensions for predicting both high and low scores of the two behavioural outcomes. The configurational model was tested using the fsQCA V3.0 (Ragin, 2008).

The fsQCA includes three stages of calibration, generating truth tables and a counterfactual analysis. In the calibration stage, Likert scale data (e.g. ranging from 1: strongly disagree to 7: strongly agree) is transformed to fuzzy data (ranging from 0: nonfull membership to 1: full membership). In the next step, all possible conditions, called truth tables, leading to the expected outcome are calculated based on a Boolean algebra function and set theory.

The truth table is refined according to the two probabilistic measures of coverage and consistency. In the counterfactual analysis step, conditions are minimised based on the existent knowledge (Ragin, 2008). This study follows Olya and Gavilyan's (2017) suggestion to conduct an fsQCA for travel and hospitality research using a questionnaire-based survey. This study also conducted an analysis of the necessary conditions for achieving a high level of continuing intention to use and intention to recommend green hotels (Dul, 2016).

Chapter 4

RESULTS OF STUDY

4.1 Profile of the study's respondents

The respondents' profiles are presented in Table 2. It is observed that 40 (15.4 per cent) respondents were 18-27 years old, 47 (18.1 per cent) were 28-37 years old, 61 (23.5 per cent) were 38-47 years old, 41 (15.8 per cent) were 48-57 years old, and 71 (27.2 per cent) were 58 years or older. The sample included 111 (42.7 per cent) male and 149 (57.3 per cent) female respondents.

In terms of education level, 7 (2.7 per cent) respondents had not completed high school, 56 (21.5 per cent) held only a high school diploma, 66 (25.4 per cent) had some college experience, 63 (24.2 per cent) held a bachelor's degree and 68 (26.2 per cent) held graduate degrees. The annual income level of 43 (16.6 per cent) respondents was under US$19,000, 57 (21.9 per cent) respondents earned between $19,000 and $24,999, 78 (30 per cent) respondents earned between $25,000 and $49,999, 44 (16.9 per cent) respondents earned between $50,000 and $69,999 and 38 (14.6 per cent) respondents had an annual income of $70,000 or more.

Respondents were asked about their experiences staying at a green hotel: 174 (66.9 per cent) respondents had no prior experience, whereas 86 (33.1 per cent) respondents had stayed at a green hotel previously.

Table 2: Respondents' Demographics

Variable	N	(%)
Age		
18-27 years	40	15.4
28-37 years	47	18.1
38-47 years	61	23.5
48-57 years	41	15.8
≥58 71	27.2	27.2
Total	260	100.0
Gender		
Male	111	42.7
Female	149	57.3
Total	260	100.0
Prior experience staying at a green hotel		
No	174	66.9
Yes	86	33.1
Education level		
Not completed high school	7	2.7
High school diploma	56	21.5
Some college	66	25.4
Bachelor's degree	63	24.2
Graduate degree	68	26.2
Total	260	100.0
Income		
Under $19,000	43	16.6
$19,000-24,999	57	21.9
$25,000-49,999	78	30.0
$50,000-69,999	44	16.9
$70,000 or more	38	14.6
Total	260	100.0

Note: N = frequency

4.2 Measurement model

The results of the measurement model testing are provided in Table 3. The alpha values and CR for five factors were greater than the commonly accepted level of reliability (>0.7) (Bagozzi and Yi, 1988; Cortina, 1993). According to the CFA results, all items were significantly and sufficiently loaded under their respective variables (standardised factor loading > 0.4, $p < 0.05$).

To check construct validity, the average variance extracted (AVE) was calculated for each construct. As shown in Table 3, the AVE of each variable is greater than the recommended level of 0.5 and less than the CR value of the corresponding variable. Such results provide evidence for convergent validity of the study measures (Hair et al., 1998). In terms of discriminate validity, AVE was larger than the respective average shared square variance (ASV) and maximum shared squared variance (MSV). As reported at the bottom of Table 3, the results indicated that the proposed model fit well with the empirical data (Anderson and Gerbing, 1988; Fornell and Larcker, 1981).

4.3 Results of symmetrical analysis

The SEM results for investigating the net effect of the three TPB elements are demonstrated in Figure 5. The attitude towards behaviours significantly and positively associated with continued intention to use at $b = 0.348$, $p < 0.001$ and intention to recommend was $b = 0.326$, $p < 0.001$. Similarly, subjective norms have significant and positive effects on continued intention to use ($b = 0.491$, $p < 0.001$) and intention to recommend ($b = 0.458$, $p < 0.001$). Perceived behavioural control had a significant and positive effect on continued intention to use ($b = 0.190$, $p < 0.01$) but no significant effect on intention to recommend ($b = 0.008$, not significant).

Table 3: Results of measurement model testing

Scale items	SFL (ASV)	AVE (MSV)	CR (α)	Mean	Std. Dev
Continued intention to use		0.522	0.727		
(Ajzen,1991; Ajzen and Fishbein, 1980; Han, 2015)	(0.268)	(0.508)	(0.757)		
I am willing to stay at a green hotel when travelling in the future	0.609**			4.992	1.291
I plan to stay at a green hotel instead of a conventional hotel when travelling in the future	0.808**			4.569	1.217
I will expend effort to stay at a green hotel instead of a conventional hotel when travelling in the future	0.737**			4.565	1.221
Intention to recommend		0.593	0.744		
(Prud'homme and Raymond, 2013)	(0.313)	(0.510)	(0.814)		
I will recommend a green hotel to my friends when they are travelling	0.790**			4.658	1.319
I will say positive things about green hotels	0.747**			4.873	1.371
I encourage my relatives to select green hotels for their travels	0.772**			4.669	1.378
Attitude towards the behaviour		0.639	0.782		
(Ajzen, 1991; Ajzen and Fishbein, 1980; Han, 2015)	(0.307)	(0.444)	(0.873)		
For me, staying at a green hotel when travelling is bad - good	0.848**			5.292	1.353
For me, staying at a green hotel when travelling is foolish - wise	0.799**			5.265	1.253
For me, staying at a green hotel when travelling is unpleasant pleasant	0.867**			5.288	1.260
For me, staying at a green hotel when travelling is harmful beneficial	0.668**			5.200	1.233
Subjective norms		0.711	0.773		
(Ajzen, 1991; Ajzen and Fishbein, 1980; Han, 2015)	(0.115)	(0.440)	0.879)		
Most people who are important to me think I should stay at a green hotel when travelling	0.860**			4.512	1.269
Most people who are important to me would want me to stay at a green hotel when travelling	0.869**			4.481	1.244
People whose opinions I value would prefer that I stay at a green hotel when travelling	0.798**			4.615	1.242
Perceived behavioural control		0.622	0.768		
(Ajzen, 1991; Ajzen and Fishbein, 1980; Han, 2015)	(0.107)	(0.230)	(0.694)		
Whether or not I stay at a green hotel when travelling is completely up to me	0.782**			5.131	1.392
I am confident that, if I want, I can stay at a green hotel when travelling	0.691**			4.965	1.376
I have the resources, time and opportunities to stay at a green hotel when travelling	0.881**			4.673	1.254
Model fit statistics: X^2 = 253.462, (df = 94, p < 0.01); X^2/df = 2.696; IFI = 0.923; PCFI = 0.722; RMSEA = 0.081					

Notes: SFL: standardised factor loading; AVE: average variance extracted; MSV: maximum shared squared variance; ASV: average shared square variance; CR: composite reliability; α: Cronbach's alpha, representing internal consistency; IFI: incremental fit index; PCFI: parsimony comparative fit index; RMSEA: root mean square error of approximation; **: SFL is significant at the 0.001 level; Sources for scale items are provided in parenthesis; Items were gauged using seven-point Likert scales

These results are similar to findings by Goh et al. (2017), who noted that the behavioural intentions of national park visitors were significantly and positively influenced by attitude towards behaviours and subjective norms but not associated with perceived behavioural control.

4.4 Asymmetrical modelling results

The results of the configurational modelling for predicting high and low scores of the behavioural intentions of green hotel guests are presented in Table 4. The fsQCA results offer two causal recipes that describe conditions for high scores on continued intention to use green hotels (coverage: 0.948, consistency: 0.814).

Model 1 indicates that the attitude towards the behaviour are sufficient for achieving continued intention to use green hotels. Similarly, Han et al. (2010) found "that attitude toward a behavior had a greater level of influence on visit intention [of potential customers of green hotels] than subjective norm and perceived behavioral control". Alternatively, a high level of perceived behavioural control and low level of subjective norms describe those conditions in which guests intend to continue staying at green hotels (Model 2).

Unlike the TPB's symmetrical modelling, in asymmetrical modelling, causal models leading to low scores of behavioural outcomes are not mirror opposites of casual models of high scores of behavioural outcomes (Olya et al., 2018). In accordance with Olya and Akhshik's (2018) findings, two causal models for the negation of an outcome (i.e. a low score for continued intention to use) are unique and different from the mirror opposite of causal models for high scores of the outcome (coverage: 0.773, consistency: 0.797).

Model 1 indicates that low perceived behavioural control and high attitude towards the behaviour lead to low levels of continued intention to use green hotels. According to Model 2, low levels of continued intention to use green hotels occur when levels of attitude towards the behaviour, subjective norms are low and perceived behavioural control is high (Table 4). The causal model for the high score of intention to recommend (coverage: 0.947, consistency: 0.804) is similar to causal models, leading to high continued intention to use (Tables 4 and 5).

Table 4: The fsQCA models for formulating high and low scores on continued intention to use

Models for predicting high score outcomes	RC	UC	C	Models for predicting the outcome negation	RC	UC	C
Cintu = f(atb, sn, pbc)				~Cintu = f(atb, sn, pbc)			
M1: atb	0.941	0.422	0.827	M1: atb*~pbc	0.672	0.185	0.792
M2: ~sn*pbc	0.526	0.006	0.916	M2: ~atb*~sn*pbc	0.587	0.101	0.913
Solution coverage: 0.948				Solution coverage: 0.773			
Consistency: 0.814				Solution consistency: 0.797			

Notes: M: model, RC: raw coverage; UC: unique coverage; C: consistency; Cintu: continued intention to use; atb: attitude towards the behaviour; sn: subjective norm; pbc: perceived behavioural control; *: and

These results indicate that to attain high intentions to recommend and continue to use green hotels, managers need to follow similar recipes. In other words, satisfying conditions for two causal recipes, obtained from the fsQCA, lead to both desired behavioural outcomes. These results are straightforward in comparison with the conditions in which causal recipes of intention to recommend differ from those of continued intention to use. If the causal recipes for two expected outcomes are unique and different, managers should consider more than two complex conditions to reach a high intention to recommend and continue to use green hotels. Causal models of low intention to recommend (coverage: 0.744, consistency: 0.810) are different from those of low continued intention to use green hotels (Tables 4 and 5).

Model 1 recommends that low intention to recommend stems from low levels of attitude towards the behaviour. According to Model 2, low subjective norms and perceived behavioural control result in low intention to recommend green hotels to others (Table 5). The predictive validity of causal recipes obtained from configurational modelling was checked by splitting the original sample into two subsamples and testing models that emerged from Subsample 1 using Subsample 2 (Olya and Altinay, 2016). We first tested the model of Subsample 1 to predict guests' intention to continue to use and recommend using Subsample 2 (Appendix 1). A high level of consistency illustrated in both plots indicate that the causal recipe has predictive validity using separate/future data.

Table 5: The fsQCA models for formulating high and low scores of intentions to recommend

Models for predicting high score outcomes	RC	UC	C	Models for predicting the outcome negation	RC	UC	C
Intrec = f(atb, sn, pbc)				~Intrec = f(atb, sn, pbc)			
M1: atb	0.938	0.425	0.814	M1: ~atb	0.637	0.135	0.859
M2: ~sn*pbc	0.521	0.008	0.987	M2: ~sn*~pbc	0.608	0.106	0.833
Solution coverage: 0.947				Solution coverage: 0.744			
Consistency: 0.804				Solution consistency: 0.810			

Notes: M: model, RC: raw coverage; UC: unique coverage; C: consistency; Cintu: continued intention to use; atb: attitude towards the behaviour; sn: subjective norm; pbc: perceived behavioural control; *: and

4.5 Results of necessary condition analyses

The results of the necessary condition analyses indicated the necessary condition to attain continued intention to use and intention to recommend; these are provided in Table 6. Of the three TPB variables, attitude towards the behaviour appeared as a necessary condition for achieving both desired behavioural outcomes (consistency > 0.9).

This means that, without an attitude towards the behaviour, guests' intention to recommend and continue to use green hotels will not be achieved. Values of consistency for subjective norms and perceived behavioural control were close to the recommended level for necessary conditions. Results from the fsQCA offered two recipes (M1: atb and M2: ≃sn*pbc). An NCA was conducted to identify the causal recipe necessary to attain high levels of continued intention to use and recommendation intention. The results of the NCA showed that these two recipes are not necessary, but sufficient to achieve the desired behavioural intentions of green hotel guests in Cyprus (Table 6).

Table 6: NCA results

	Continued Intention to Use		Intention to Recommend	
Conditions	Consistency	Coverage	Consistency	Coverage
Atb	0.942	0.828	0.939	0.815
~atb	0.391	0.905	0.392	0.896
Sn	0.841	0.894	0.840	0.882
~sn	0.552	0.877	0.551	0.866
Pbc	0.886	0.838	0.870	0.813
~pbc	0.467	0.910	0.478	0.921
~sn*pbc	0.384	0.946	0.402	0.668

Notes: atb: attitude towards the behaviour; sn: subjective norm; pbc: perceivedbehavioural control; Necessary antecedent (consistency > 0.9) is highlighted initalic; *: and

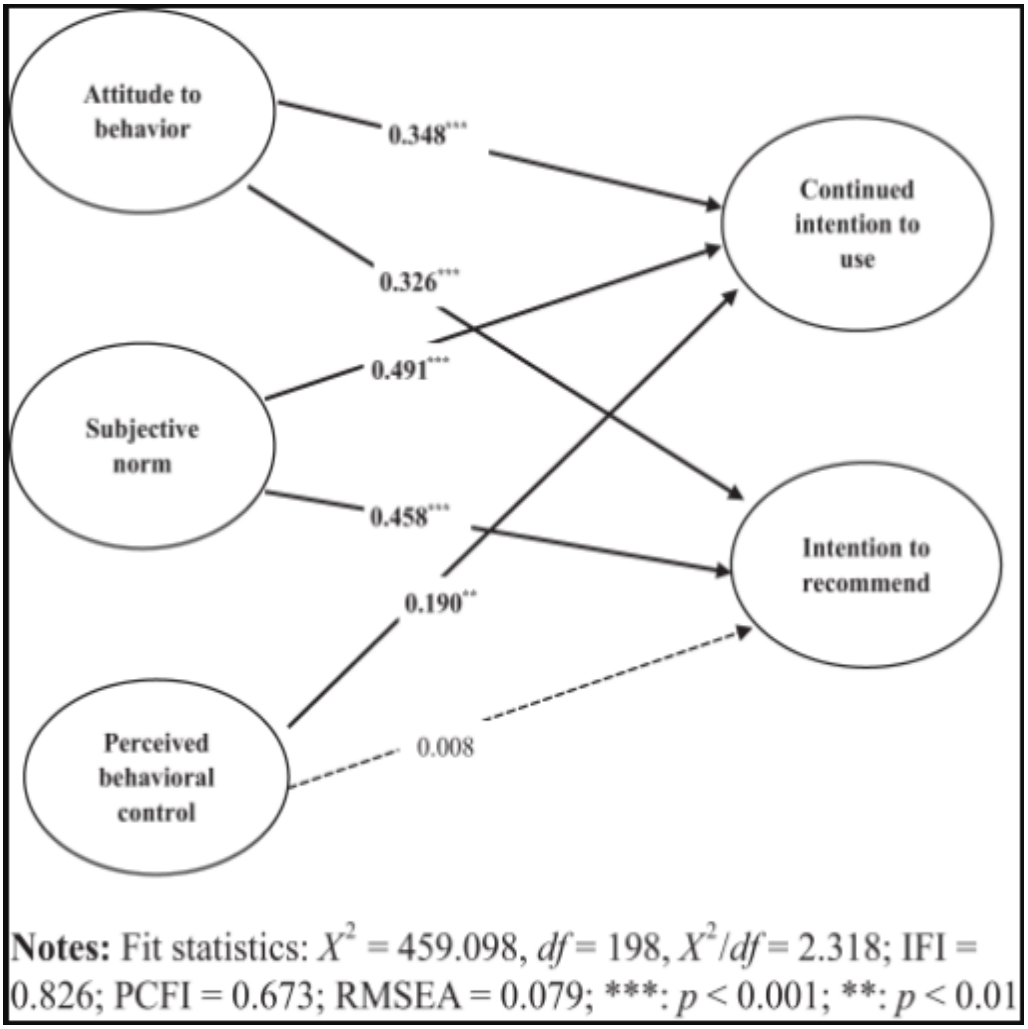

Figure4: Results of structural equation modelling

Chapter 5

DISCUSSION AND CONCLUSION

This chapter consists of the study's findings, its theoretical as well as managerial implications for green hotels, the study's limitations, and then suggested directions for future studies.

The current study's results offers strong support for the use of the TPB in the green hotel industry context. There were positive and significant associations between the TPB constructs and green hotels' guests' intention to recommend and continued intention to use. As one of the main constructs of the TPB, attitude towards green hotels, subjective norms as well as perceived behavioral control are related to the intention to recommend and the continued intention to use. This result aligns with earlier research (Han et al., 2010; Paul, Modi, & Patel, 2016; Verma & Chandra, 2018). Nonetheless, a number of studies have reported no that there is no significant relationship between attitudes and intentions in this context (Lam & Hsu, 2006). Likewise, the findings revealed perceived behavioral control has a significant positive relationship with continued intention to use but not with the intention to recommend. By and large, in TPB studies, a few issues have arisen connected to perceived behavioural control, and in certain scholarships, the influence of perceived behavioural control on intentions was found to be insignificance (Ajzen, 2015; Yazdanpanah & Forouzani, 2015).

5.1 Contribution to theory

This study extended the current knowledge of green hotel guests' behaviors using a novel application of the TPB. This study suggests that TPB configurational modelling can serve as a powerful solution for tackling the complexity of guests' behaviors in the green hotel industry. The authors believe that asymmetrical TPB modelling is pragmatic as an extension, modification and decomposition of the TPB for predicting green consumption. This study revealed that the net effects of attitude to behavior, subjective norms and perceived behavioral control on guests' continued intention to use green hotels are significant and positive. Intention to recommend a green hotel to others is influenced by attitude to behavior and subjective norms but not affected by perceived behavioral control.

This study argues that although investigating the distinct effect of TPB variables on the behavioural intentions of green hotel guests is significant, it is insufficient. In other words, causal models that indicate this combination of three TPB variables must be explored to describe conditions in which the desired behavioural intentions of guest can be achieved. Specifically, SEM results showed that perceived behavioural control, singly, is not associated with intention to recommend, whereas the results of the configurational modelling showed that perceived behavioural control, in combination with subjective norms, could contribute in predicting intention to recommend.

This study applied fsQCA to explore causal recipes from a combination of TPB variables in formulating the behavioural intentions of green hotel guests in Cyprus. Attitude to behaviour offers a sufficient condition for achieving a high level of intent to continue using and recommending green hotels to others. These desired behavioural

intentions result from high levels of perceived behavioural control and low subjective norms. This study is the first empirical study to suggest that causal recipes for undesired behavioural intentions (low scores of continued intention to use and intention to recommend) are unique and different from the opposite mirror of causal recipes for desired behavioural intentions of green hotel guests.

Green hotel managers need to be vigilant about causal recipes that lead to undesired behavioural intentions among their guests. The present study's findings from the configurational modelling indicate that guests with low levels of perceived behavioural control and high attitude towards behaviour are less likely to continue using green hotels. Therefore, the marketing department of green hotels may wish to adjust strategies by excluding customers with a low level of perceived behavioural control, although, they might have an appropriate attitude towards behaviour, from marketing practices. Odedina *et al.* (2011) found that young and less educated men have a low level of perceived behavioural control. Nonetheless, we must acknowledge that it is not straightforward to recognise who has a low level of perceived behavioural control and further studies on green consumption need to address this research question. In the case of current customers who have a low level of perceived behavioural control and high level of attitude, green hotels can help improve their perception about control over behaviour through organised activities and campaigns that demonstrate to this group that they have control of their intentions and actions. As this group displays a high attitude towards behaviour, they are likely to participate in safe, interpretative and fun activities.

A low score for continued intention to use, also may be the result of low levels of guests' attitude towards behaviour and subjective norms and high levels of perceived

behavioural control. Combinations of TPB factors for low levels of intention to recommend are dissimilar to causal models for high levels of continued intention to use green hotels. Guests with low levels of attitude towards behavior may not recommend green hotels to others. Low levels of intention to recommend are caused by low levels of subjective norms and perceived behavioral control.

This study contributes to the extant literature on hospitality management by identifying necessary TPB variables for attaining desired behavioral outcomes among green hotel guests. Findings from the analyses of necessary conditions suggest that attitude towards behavior is necessary to obtain high levels of continued intention to use and recommendation intention. In terms of the practicality of the necessary condition results, an impactful plan is needed to improve attitude towards behavior among green hotel guests. One practice that improves attitude towards behavior is taking action with a purpose.

5.2 Contribution to practice

The TPB is frequently used for predicting hotel guests' behaviors. Most of the research in this area is focused on the net effect of TPB indicators in explaining behavioral responses. Although the investigation of sufficient TPB indicators is significant, managers of green hotels need to know how three specific TPB indicators can be combined to describe complex conditions leading to high and low levels of their guests' expected behaviors. Importantly, hoteliers must be vigilant to satisfy the necessary conditions that lead to guests' high intention to recommend and continue to use green hotels.

Attitude towards behavior plays a critical role in guests recommending and continuing to use green hotels as a net effect of this factor, showed by SEM results (Figure 3). According to the fsQCA results, attitude towards behavior as a single factor appeared as a causal recipe that is sufficient and consistent to predict two desired behavioral outcomes. Furthermore, the NCA results revealed that attitude towards behavior is a necessary factor to attain favorable behaviors among guests of green hotels in TRNC. Therefore, green hotel managers should invest in promoting the attitude towards behavior of their guests. Specifically, social media can be used as an influential tool to increase the environmental concerns of guests or potential customers, which may improve their attitude towards behaviour. The marketing department can reinforce environmental policies and share eco-friendly practices through direct marketing via email. In addition, bearing in mind the significant impacts of attitude, subjective norm and perceived behavioral control, it may be reasonable for the government and managers of green hotels to launch a number of public lectures focusing on environmental protection. Perhaps brochures (print and online) communicating the eco-friendly elements of green hotels and its potential advantages to the society and the environment could be circulated to consumers. This measure and others like it could assistant consumers appreciate the momentousness of environmental protection, and in turn fosters consumers' awareness environmental issues and help them form a positive and favorable attitude toward green hotels. In addition, this kind of measure also has the ability enrich as well as improve the environmental protection knowledge of consumers; making them appreciate their obligation, responsibility and ability in their everyday lives and in consumer decisions to protect the environment.

Green hotels can support loyalty programmes that demonstrate appreciation of the knowledge, concern and attitude of guests towards behaviors. They can encourage guests who engage in eco-friendly activities by offering incentives and awards. Training programmes may provide opportunities for guests to learn about the purpose of green consumption. Policymakers in the TRNC need to support green hotels as a priority in destination management by cooperating in pro-environmental actions because green consumption can contribute to the sustainable management of this small Mediterranean island's fragile ecosystem. The government can also provide technical and financial support for energy efficiency, water and energy conservation and the air quality of green hotels. Such policies enhance awareness and attitude of all stakeholders including guests of green hotels towards sustainable management of hospitality and tourism in the small island of Cyprus. In addition, the government can establish electric charge stations near the green hotels to encourage using electrical vehicles by both guests and employees.

5.3 Limitation and future research directions

This empirical study advances the theory and methods on ethical consumption in the hospitality industry by assessing the net effect of TPB indicators on the structural model's outcomes using SEM, investigating a complex combination of TPB indicators on the guests' behavioral responses using fsQCA and identifying the necessary TPB indicators for predicting outcomes using NCA. Modelling the behaviors of green hotel guests using cross-sectional data from only one island (i.e. Cyprus) should be considered a limitation of this study, as Cypriot context might be a hindrance to the generalization of the study's findings.

In addition, this study's data is restricted to the visitors at hotels with green practices and policies. For this reason, the study's outcomes should not be generally applied to other forms of hotels and lodging facilities. Further, the current study considered the three basic components of TPB as part of the formation that potentially predict green hotels' visitors' behavioral intentions; thus it is suggested that applying a decomposed TPB model that employs decomposed conformations to predict certain behavioral intentions of guests at green hotels. Predicting green hotels' guests' willingness to pay premium as a potential end result of a TPB-based configurational model is suggested as a worthy direction in future researches. In addition, the model proposed and examined in the current study is only from the perspective of the guests at green hotels (that is, this study examined data only from the demand side); for this reason, the including substantial data and perspective from the supply side (that is, employees and managers) in future configurational models is very likely going to enrich the current body of knowledge in green consumption research in the hospitality and tourism sector.

The current study focuses on customers' continued intention to be guests at green hotels and not the actual behavior. All the same, although a number of researchers have maintained that it is both necessary and useful to investigate the behavioral intention of consumers (Han and Yoon, 2015; Beck and Ajzen, 1991), the actual behaviors of consumers are often inconsistent with their indicated behavioral intentions (Belk, 1985). For this reason, further studies may give emphasis to consumers' actual behavior of staying at green hotels. This kind of studies may contribute to current body of knowledge which could narrow the knowledge-gap in the literature on the behavioral intentions and behaviors of consumers in the green hotel context. In addition, this study used the three basic components of the TPB framework. There are

a number of potential extended TPB framework that incorporates other variables such perceived risks, perceived benefits and information acquisition, which may perhaps also influence consumers' intention to continue to visit green hotels. Therefore, further studies may integrate these constructs into the TPB with the objective to further investigate and explain consumers' intention to be guests at green hotels. In conclusion, this current study primarily focuses on psychological constructs while overlooking potential situational constructs. In the future, scholars may investigate the influence of possible situational constructs (e.g. hotel service quality) on consumers' intention to be guests at green hotels.

Further studies should consider conducting longitudinal research in this area of study. It is suggested that developing a TPB model similar to this study's proposed three analytical approaches, and then compare the results for samples of non-green and green hotels. In the hotel industry, green consumption is an emerging development as government institutions emphasize policies that are pro-environmental and regulatory bodies vets hotels' environmentally-friendly practices. For this reason, green consumption will continue to be an interesting topic both to practitioners and academics alike so as to offer useful recommendations and suggestions that are applicable across the hospitality industry's subsectors such as leisure centers, tour operators, resorts, nightclubs, bars, casinos, restaurants etc.

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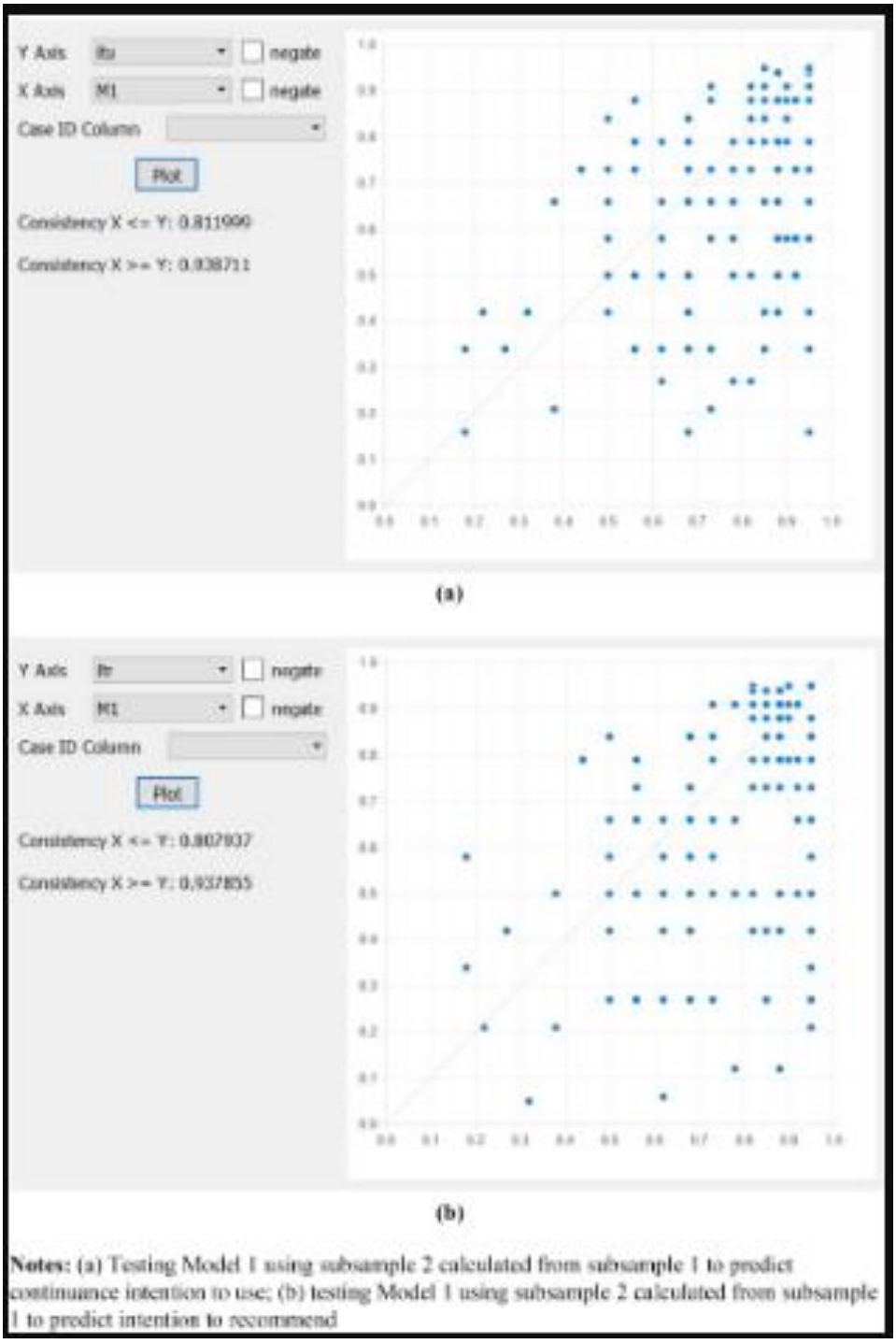
APPENDIX



Notes: (a) Testing Model 1 using subsample 2 calculated from subsample 1 to predict continuance intention to use; (b) testing Model 1 using subsample 2 calculated from subsample 1 to predict intention to recommend

Figure 1: Evidence of predictive validity

Table 1: Survey Questionnaire

Dear respondents.
This is a survey for my PhD thesis that aims to investigate under what conductions tourists recommend and return to a green hotel. Your anonymous responses will be used just for my research and would be remained confidential.
Please do not hesitate to contact me if you have further inquiries.
Thanks for your time and consideration.

1-1							
1. For me, staying at a green hotel when traveling is ~	**Bad** 1	2	3	Neutral 4	5	6	**Good** 7
2. For me, staying at a green hotel when traveling is ~	**Foolish** 1	2	3	Neutral 4	5	6	**Wise** 7
3. For me, staying at a green hotel when traveling is ~	**Unpleasant** 1	2	3	Neutral 4	5	6	**Pleasant** 7
4. For me, staying at a green hotel when traveling is ~	**Harmful** 1	2	3	Neutral 4	5	6	**Beneficial** 7
1-2	**Extremely disagree**			Neutral			**Extremely agree**
5. Most people who are important to me think I should stay at a green hotel when traveling.	1	2	3	4	5	6	7
6. Most people who are important to me would want me to stay at a green hotel when traveling.	1	2	3	4	5	6	7
7. People whose opinions I value would prefer that I stay at a green hotel when traveling.	1	2	3	4	5	6	7
1-3	**Extremely disagree**			Neutral			**Extremely agree**
8. Whether or not I stay at a green hotel when traveling is completely up to me.	1	2	3	4	5	6	7
9. I am confident that if I want, I can stay at a green hotel when traveling.	1	2	3	4	5	6	7
10. I have resources, time, and opportunities to stay at a green hotel when traveling.	1	2	3	4	5	6	7

1. Please rate each of the following questions based on your thoughts.

2. Please rate each of the following questions based on your thoughts.

2-1	**Extremely disagree**			Neutral	**Extremely agree**		
11. I am willing to stay at a green hotel when traveling in the future.	1	2	3	4	5	6	7
12. I plan to stay at a green hotel instead of a conventional hotel when traveling in the future.	1	2	3	4	5	6	7
13. I will expend effort on staying at a green hotel instead of a conventional hotel when traveling in the future.	1	2	3	4	5	6	7
2-2	**Extremely disagree**			Neutral	**Extremely agree**		
14. I recommend green hotel to my friend to stay in during the travel	1	2	3	4	5	6	7
15. I tell positive things about green hotel	1	2	3	4	5	6	7
16. I encourage my relatives to select a green hotel in their travel	1	2	3	4	5	6	7

3. Information about yourself

3-1. What is your gender? _____ Male _____ Female

3-2. What is your age? _____ years old

3-3. When was your last stay at a hotel?
_____ Within 1 week _____ Within 2 weeks
_____ Within 1 month _____ Within 2 months
_____ Within 3 months _____ Within 6 months or more

3-4. Which statement best describes how often you stay at a hotel per year?
_____ 5 times or less _____ 6 – 10 times
_____ 11 − 15 times _____ 16 times or more

3-5. Have you ever stated at a green hotel? _____ Yes _____ No

3-5-1. If yes, approximately when was the last time you **stayed in a green hotel**?
_____ Within 1 month _____ Within 2 months
_____ Within 3 months _____ Within 6 months
_____ Within 1 year or more

3-6. Which category describes your annual household income level, U.S. dollars, before taxes?
_____ Under $24,999 or less _____ $30,000 - $49,999
_____ $50,000 - $69,999 _____ $70,000 or more

3-7. What is your highest level of education?
_____ Have not completed high school _____ High-school diploma
_____ Some college _____ Bachelor degree
_____ Graduate degree

3-8. What is your ethnic background?
_____ Asian _____ Caucasian/White _____ Hispanic
_____ African American _____ Other

Thank you very much for your time and valuable participation