

# EXPLORING TOURISTS' RESPONSIBLE BEHAVIOR: EVIDENCE FROM THAILAND

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## Abstract

The study aims to measure tourists' responsible behavior, and to develop a structural equation model of responsible tourist behavior among Thai tourists. A questionnaire survey was conducted using an online questionnaire. A total of 503 Thai domestic tourists who practiced responsible behavior participated in the study. The data were analyzed through structural equation modeling with a two-stage approach. The results of the analysis revealed a good fit with the empirical data (CMIN/DF = 2.62, RMSEA = 0.06, CFI = 0.94, TLI = 0.92). Moreover, the findings highlight two underlying factors which emerged for responsible behavior, namely impact consideration and local connections. The establishment of an extended Theory of Planned Behavior (TPB) model with two additional predictors including environmental and social concern, and pro-environmental behavior in everyday life, explains the formation of tourists' responsible behavior. Destination managers and marketers can encourage tourists' responsible behavior by implementing meaningful experiences with various low-impact tourism activities. Relevant government agencies and policy makers can promote responsible campaigns and events to enhance responsible behavior.

Keywords: Responsible behavior, Responsible tourist, TPB

## 1. INTRODUCTION

The concept of sustainable tourism has been introduced since the 1980s in relation to tourism that takes full account of its current and future economic, social, and environmental impacts, addressing the needs of visitors, the industry, the environment, and host communities (UNEP & UNWTO, 2005). Indeed, sustainable tourism development requires a joint effort with all tourism stakeholders in balancing three dimensions to guarantee the long-term sustainability of destinations. Sustainability in action or responsible tourism has been enhanced as the implementation of sustainability focusing on minimization of interference in the natural environment, respect for cultural diversity,

generating economic benefits for host communities, maximization of participation of local people, and providing meaningful connections between tourists and local people, increases customer satisfaction (Cape Town Declaration, 2002; Debicka & Oniszczyk-Jastrzabek, 2014; Mihalic et al., 2021). Responsible tourism is regarded as one of the pathways for meeting the 2030 Sustainable Development Goals (SDG) of the United Nations and is seen as an alternative tourism practice, particularly Goal 12 – to ensure sustainable consumption and production patterns (Dias et al, 2021; Mondal & Samaddar, 2021; MacInnes et al., 2022). As one of the most famous destinations in the world for its variety of cultural uniqueness, its designation as the land of smiles, and over 50

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years of development, tourism has become an essential component of Thailand's economy. The number of domestic and international tourist arrivals grew continuously until the Covid-19 pandemic. During 1995-2019, the number of tourist arrivals grew drastically from 6.95 million to 39.92 million resulting in a significant financial contribution, with the increasing amount of tourism revenue rising from 9.26 billion USD (about 5.5 percent of the gross national product) to 64.37 billion USD (about 11.83 percent of gross national product) (WorldData.info, 2023). However, there were also several negative impacts resulting from the long term practice of mass tourism, including overcrowding, pollution, solid waste and littering, and traffic (Agarwal et al., 2019; Witchayakawin et al., 2020; Dias et al., 2021; Panwanitdumrong & Chen, 2021). Sustainable development depends largely on tourist attractions and their behavior onsite, consequently understanding from the demand-side perspective is critical to the success of sustainable development and is widely discussed (Lee et al., 2013). Subsequently, the Tourism Authority of Thailand (TAT) has enhanced the practice of sustainable and responsible tourism among all stakeholders involved from tourists, communities, entrepreneurs, and suppliers, as mentioned by TAT deputy Governor "Responsible tourism and sustainability in tourism will be the main direction in the future".

Tourists as the main consumers of tourism resources are one key driver of responsible tourism, measuring and monitoring tourists' responsible behavior is vital. However, since the Covid-19 pandemic, the number of international tourist arrivals visiting Thailand has declined significantly, with domestic tourism becoming a main source of income. TTB analytic anticipated that the number of Thai visitors traveling domestically in 2023 will reach 226 million-visits, generating approximately 820 billion baht in tourism revenue, with the domestic tourist market still the main driver of the Thai tourism industry (TTB, 2023). Hence, this study places emphasis on the behavior of Thai

domestic tourists toward responsibility. Previous studies reveal a limited view of sustainability most dominated by the effect of tourist behavior on the environmental dimension rather than social and economic issues (Lee et al., 2013; Juvan & Dolnicar, 2016; Kastenholz et al., 2018; Chen et al., 2020; Gautam, 2020; Han, 2021; Hosta & Zabkar, 2021). To fill these gaps, this study highlights dimensions of sustainability in practice from a demand-side perspective and examines the factors influencing tourists' responsible behavior. Application of the theory of planned behavior (TPB) was employed to understand responsible behavior, as it is widely used in the management and tourism context (e.g., Panwanitdumrong & Chen, 2021; MacInnes et al., 2022). The TPB postulates that human behavior is based on behavioral intentions which are driven by attitude, subjective norms, and perceived behavioral control. Apart from attitude toward behavior, subjective norms, and perceived behavioral control are predictors of behavioral intentions. Ajzen (1991) suggested the inclusion of additional predictors that could explain intentions or behavior. Thus, rather than assuming the three main TPB predictors, it is useful to the tourism research community to investigate variables perceived to have an impact on tourists' responsible behavior. Several studies have investigated the environmental and social concerns affecting behavioral intentions (Yue et al., 2020; Hosta & Zabkar, 2021). Additionally, the studies by Xu et al. (2020) and MacInnes et al. (2022) pointed out the effects of pro-environmental behavior in everyday life toward behavioral intentions. Hence this research underlines the academic contribution for the extended Theory of Planned Behavior as it has been suggested by several academics (Ajzen, 1991; Fenitra et al., 2021; Hosta & Zabkar, 2021; Panwanitdumrong & Chen, 2021; MacInnes et al., 2022). A structural equation model was developed to examine the relationships of the TPB, pro-environmental behavior in everyday life, environmental and social concerns, behavioral intentions, and the responsible tourist behavior of Thai tourists.

This study addresses understanding regarding responsible behavior, as well as supporting the theoretical foundation on the significance and usefulness of the Theory of Planned Behavior and the development of an extended Theory of Planned Behavior in the tourism context. The results of this research can support the decisions of destination management organizations in modifying tourism activities and services that are suitable for responsible tourist behavior. The government and related organizations may use these new results for policy adjustment.

## **2. LITERATURE REVIEW**

### **2.1 Sustainable and Responsible Tourism**

The concept of sustainable development has been introduced and widely accepted within the tourism industry worldwide, with a balanced approach to the three pillars of sustainability including environment, socio-cultural, and economic aspects. The sustainability paradigm is a long-term perspective which addresses the future of the planet based on the responsible actions of all stakeholders to all forms of tourism. As mentioned by Mihalic et al. (2021) and Goodwin (2016), sustainability is a complex issue, whereby there is difficulty in determining whether ideas are operative or inoperative in a way that secures the attainment of sustainability in the long-term. A new aspect of sustainability in action has been presented as responsible tourism headed for implementation and effectiveness placing the emphasis on what people, businesses, and governments, do to make tourism more sustainable. Responsible tourism is regarded as one of the pathways for meeting the 2030 Sustainable Development Goals (SDG) as an alternative tourism practice. Several of the targets associated with SDG Goal 12 specifically link to responsible tourism. For example, “12.2: By 2030, achieve the sustainable management and efficient use of natural resources” (such as respect and protect all that makes a destination unique and different, and support the local economy);

“12.5: By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse” (such as reduce, re-use and recycle solid waste during trips and reduce consumption of water and electricity in accommodation establishments); and “12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle” (such as choosing tourism operators with environmental policies) (UNWTO, 2020; United Nations, 2023).

According to Goodwin (2016), in 2007 the world travel Market adopted the Cape Town Declaration definition of responsible tourism which requires operators, hoteliers, governments, local people, and tourists, to take responsible actions for making better places for people to live and better places for people to visit including minimizing negative impacts, generating greater economic benefits for local people, making positive contributions to the conservation of nature and cultural heritage, providing more enjoyable experiences and access for people with the disadvantages, engender respect between tourists and hosts, and build local pride, confidence and participatory decision making (The Cape Town declaration, 2002). The importance of responsible tourism has been acknowledged worldwide, such as World Tourism Organization (UNWTO) has considered the promotion of equitable, responsible, and sustainable world tourism, and validated the guideline for tourists on how to travel responsibly. In 2020 the world committee on Tourism Ethics developed the Tips for Responsible Travelers including honor your hosts and common heritage, protect the planet, support the local economy, travel safely, be an informed traveler, use digital platforms wisely, make tourism a force for good and set a good example for other travelers. Various countries around the globe including Thailand are also committed to promoting responsible tourism and sustainable tourism as the main direction in the future (TAT Newsroom, 2023). Several responsible tourism strategies and

information were launched to key tourism stakeholders such as the seven green concepts, responsible tourism marketing online course, responsible tourist guidelines, and low-carbon destinations. From a tourism academia standpoint, the study of Untong & Kantawongworn (2022) analyzed academic publications in Scopus during 2002-2020 in the topic of responsible tourism, with results discovering 204 academic articles with exponential growth during 2017-2020, signifying a high research interest and the importance of responsible tourism worldwide. Additionally, results of bibliometric analysis have reviewed the repeated keywords used in academic papers, which were widely held on the supply-side approach including development, destination management, and destination implementation; unfortunately, studies on the demand-side were still limited (Weeden, 2014, Chaiyakot et al., 2021). Understanding tourist behavior, particularly responsible tourist behavior is critical in the pursuit of sustainability and has become increasingly popular and recognized as one of the key success factors for product development and destination management strategies (Kastenholz et al., 2018; Dias et al, 2021). The study of Dias et al. (2021) explained that responsible tourists are willing to invest adequate time and resources and seek information before traveling to destinations to live local experiences consciously and ethically. The three pillars of sustainability were applied to measure and monitor tourist responsibility. However, most studies revealed a limited view of responsible behavior mostly dominated by the environmental dimension, ignoring social and economic aspects (e.g., Kastenholz et al., 2018; Zgolli & Zaiem, 2018; Dias et al, 2021; Hosta & Zabkar, 2021; Panwanitdumrong & Chen, 2021; Gezhi & Xiang, 2022). Previous studies have suggested several practices of responsible tourist behavior including buying local products, compliance with regulations and legislation of the country being visited, social interaction with local residents, appreciating local products and activities,

saving resources and recycling, and engaging in natural and cultural activities, among others.

## 2.2 Theory of Planned Behavior (TPB)

Explaining human social behavior is a difficult task due to the differences in individuals' physiological and behavioral dispositions, and social psychology and personality, as well as the effects of biological and environmental factors on behavior. The framework of the theory of planned behavior (TPB) was designed to predict and explain human behavior in specific contexts and is one of the most established and widely used theories (Ajzen, 1991; Yuriev et al, 2020; Panwanitdumrong & Chen, 2021; MacInnes et al, 2022). The TPB postulates that human behavior is based on behavioral intentions which are driven by attitudes, subjective norms, and perceived behavioral control. As general rule, the stronger the intention to engage in a behavior, the more likely it is to be performed (Ajzen, 1991). The theory suggests three main antecedent variables that predict responsible behavioral intentions. Firstly, attitudes toward behavior (ATT) refers to the degree of positivity in an individual's opinions and feelings toward the responsible behavior. Subjective norms (SN) refer to the social factors that an individual perceives as the social pressure to perform or not perform the responsible behavior. The last predictor is perceived behavioral control (PBC), which refers to an individual's ability to perform the responsible behavior. In turn, these responsible behavioral intentions can account for a considerable proportion of variance in responsible behavior (Ajzen, 1991). Additional distinctions among additional kinds of beliefs and related dispositions have been suggested for expanding the original theory of planned behavior such as environmental concern, environmental background, and pro-environmental behavior (Ajzen, 1991; Hosta & Zabkar, 2021; Panwanitdumrong & Chen, 2021; MacInnes et al, 2022).

### **2.3 Environmental and Social Concern**

With the increasing seriousness of environmental problems such as climate change, and pollution, and the continued irresponsible actions of people toward the environment, there is increasing public concern regarding environment issues. The study of Tam & Chan (2017) revealed that most of the world's population is aware of environmental problems and supports environmental protection. However, there is variation in the extent of environment concern in different cultural contexts. Environmental concern broadly refers to the degree of individual care for environmental issues and the environment. Previous studies have posited that environmental concern can have a direct effect on behavioral intentions, implying that individuals with a higher degree of environmental concern are more willing to take responsible actions in environmental and social dimensions (Yue et al., 2020; Hosta & Zabkar, 2021). Social concern appears to have been less researched, especially in the tourism context, which is generally specified as a set of propensities that sometimes lead an individual to give more consideration to others (Agnew, 2014; Hosta & Zabkar, 2021). Limited tourism research has applied social concern as one of the variables influencing behavioral intentions (Rahmafritria, et al., 2020; Hosta & Zabkar, 2021). In this study, social concern refers to a tourists' concern for negative social impacts, including unemployment, labor rights, and the irresponsible actions of other people, thus an individual with high social concern is willing to sacrifice his/her desire to behave responsibly when he/she thinks that such an act will harm others (Hosta & Zabkar, 2021). Considering the importance of environmental and social concerns to responsible behavioral intentions, this study additionally addresses environmental and social concern as proposed antecedent variables.

### **2.4 Pro environmental Behavior in Everyday Life**

Pro-environmental behavior (PEB) refers to purposeful green, sustainable, or environmentally friendly actions that can minimize the negative impacts of human behavior on the environment. Individuals with pro-environmental behavior engage within various contexts ranging from outdoor, workplace, daily life, and on holiday. Several studies have explored PEB at home including resource efficiency behavior (e.g., purchase energy saving appliances, use energy saving light bulb at home), recycling household resources (e.g., battery), selecting environmentally friendly transportation (e.g., bus, walk), while Xu et al. (2020) considered the associations of PEB with various aspects in the holiday context. The study of Whitmarsh et al. (2018) compared PEB across contexts, finding evidence that waste reduction behavior (recycling) was significantly correlated with behavior both at home and on holiday. Additionally, MacInnes et al. (2022) supported the spillover effects of pro-environmental behavior in the everyday life context with 72% of the variance of stated PEB being explained by habit on holiday. The current study explored potential spillover of PEB between everyday life on the holiday context.

The collected literature leads to the conclusion that attitudes toward behavior, subjective norms, perceived behavioral control, environmental and social concerns, pro-environmental behavior in everyday life, and responsible behavioral intentions, will have an impact on tourists' responsible behavior. A proposed theoretical framework (see Figure 1) and hypotheses for the study were devised accordingly, as follows:

H1: Attitudes toward behavior have a positive effect on the responsible behavioral intentions of Thai tourists.

H2: Subjective norms have a positive effect on the responsible behavioral intentions of Thai tourists.

H3: Perceived behavioral control has a positive effect on the responsible behavioral intentions of Thai tourists.

H4: Environmental and social concerns have a positive effect on the responsible behavioral intentions of Thai tourists.

H5: Pro-environmental behavior in everyday life has a positive effect on the responsible behavioral intentions of Thai tourists.

H6: Responsible behavioral intentions have a positive effect on the responsible behavior of Thai tourists.

### 3. METHODOLOGY

Since the majority of research in the field of tourism and hospitality is based on data collected from surveys using structural questionnaires to gather opinions, perceptions, attitudes, and behaviors of individuals (Nunkoo, 2018), this study employed a quantitative method to measure the tourists' responsible behavior and examine the relationship of the constructs used in the study.

#### 3.1 Sample and Data Collection

The population of the study was Thai

domestic tourists who had travelled nationally at least twice from last year and who practice responsible behavior at home and during their trips. The sample size was determined by the 10-times rule of thumb introduced by Hair et al. (2011). Forty-six parameters (items) were included in the study with a suggested sample size of 460. A purposive sampling method was used to collect responses with screening questions used to identify the respondents' responsible behavior such as avoiding activities that may affect the environment, properly disposing of litter, and valuing local traditions and customs. Data were collected in September-November 2022 with an online self-administrated questionnaire. Of the 526 questionnaires that were collected, a total of 503 valid questionnaires were used for data analysis. The study was approved by Kasetsart University research ethics committee (COE65/126).

#### 3.2 Survey Development

The survey questionnaire consisted of five major sections. The first section measured factors affecting tourists' intentions to behave responsibly including, attitudes toward behavior (ATT), subjective norms (SN), perceived behavioral control (PBC),

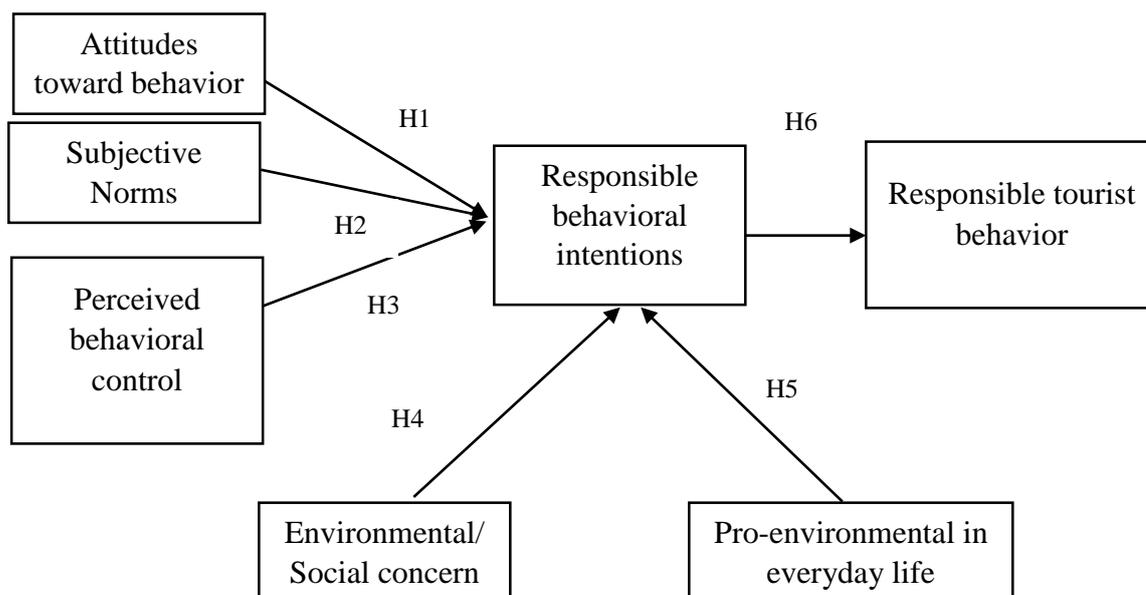


Figure 1 Proposed Research Model

pro-environmental behavior in everyday life (PEB), and environmental and social concern (CONCERN).

The Theory of Planned behavior was applied in this study, including ATT, SN and PBC, with a 10-item scale being developed based on previous study (Wu & Chen, 2014; Yadav & Pathak, 2017; Wang et al., 2019; Gautam, 2020; Panwanitdumrong & Chen, 2021). Environmental and social concern (CONCERN) was adapted from the scales of Hosta & Zabkar (2021) with a 4-item scale to evaluate individual worriedness about harmful effects to environment and society at large. Pro-environmental behavior in everyday life (PEB) utilized a 6-item scale regarding environmental conservation in daily life, as developed by Dowruang & Akkawanitcha (2018). The second section of the questionnaire measured responsible behavioral intentions (INT) with 4 items adopted from previous studies (Wang et al., 2019; Panwanitdumrong & Chen, 2021). The following section focused on measuring tourists' responsible behavior with a 22-item scale adapted from the guidelines for responsible tourism by the Tourism Authority of Thailand (2023), Goodwin (2014), and Suwachat (2012). Lastly, information regarding the respondents' demographics and behavior was collected. Some measurement items in the questionnaire originally written in English, were translated into the Thai language, and adapted to the Thai cultural context. To minimize translation bias and the effects of language nuance, three scholars fluent in the English language scrutinized the translation to Thai. A five point-Likert scale was employed to measure each respondent's opinions, attitude, and responsible behavior.

### **3.3 Data Analysis**

Data analysis consisted of several phases through the descriptive and multivariate analysis including correlation, exploratory factor analysis (EFA), confirm factor analysis (CFA) and the structural equation model. Firstly, socio-demographics and behavior were examined with percentage scores

regarding the respondent profile. This was followed by analysis of the basic assumptions in structural equation modelling with tests of correlation and multicollinearity. Principal component factor analyses with varimax rotation was then used to analyze and categorize tourists' responsible behavior with eigenvalues greater than 1, which comprised of items with factor loading greater than 0.6. To perform the structural equation model, a two-stage approach was applied, consisting of the measurement model and structural model. The measurement model assessed patterns of interrelationships among constructs through confirmatory factor analysis (CFA) with a maximum likelihood estimation method using the goodness of fit analysis, convergent and discriminant validity analysis. In the final stage, the SEM was tested to determine the consistency of the developed model with empirical data. A series of goodness of fit indices was reported based on the criteria recommended by Gefen et al. (2000), including absolute fit indices and incremental fit indices. Four criteria were chosen namely CMIN/DF, RMSEA, CFI and TLI. The acceptable threshold levels of the model fit criteria were proposed as follows: CMIN/DF below 3; RMSEA below 0.05; and CFI and TLI above 0.90 (Gefen et al., 2000). The hypothesized relationship among constructs was analyzed at a 5% level of significance. Coefficient of determination ( $R^2$ ) and significance levels of the path coefficients were tested in this study as the main criteria to evaluate the structural model (Hair et al., 2011).

## **4. RESULTS**

The descriptive statistical analysis was scrutinized to analyze the respondent profile. Most of the respondents were female (67 percent) in Generation Y or Z, aged between 19-41 years old (86.1 percent) and held a bachelor's degree (63.2 percent). The majority of respondents travelled during the weekend period (39.4 percent), and the main purpose of travel was for relaxation (86.1 percent), with transportation via private

vehicle (78.7 percent). The respondents chose the beach as a main destination choice (52.5 percent) and preferred to stay in the hotel/resort (72.6 percent). The source of their traveling information frequently came from the internet (92.8 percent). A multivariate analysis was conducted with preliminary analysis, including testing of correlations, and multicollinearity. Analysis was performed on all 46 items to illustrate the relationship between constructs with a correlation matrix, resulting in 12 items with low correlation which were eliminated from the study (4-items in pro-environmental behavior in everyday life and 8-items in tourist responsible behavior), based on the study of Yong & Pearch (2013) who mentioned that a large number of low correlation coefficients ( $r < +/- .30$ ) should be removed as they indicate a lack of patterned relationships. The two remaining items of PEB and fourteen items of tourist responsible behavior were then used for further study. Moreover, the VIF value and tolerance value of each construct indicated no evidence of multicollinearity with a tolerance value less than 0.10 and a VIF value above 10. Hence, the multicollinearity assumption was not violated, and the data were suitable for factor analysis.

To measure tourists' responsible behavior, EFA was examined to reduce the number of items and generate dimensions of Thai tourists' responsible behavior. The test of Bartlett sphericity test and the Kaiser-Meyer-Olkin (KMO) indicated that the sample was acceptable for EFA with a KMO of 0.926 and significant Bartlett's test of sphericity ( $p=0.000$ ). Two underlying factors emerged with eigenvalues greater than 1 and factor loadings greater than 0.60, namely Impact consideration (IMP) and Local connections (LOC). The total sum of the explained variance was estimated at 50%, confirming the validity of the extraction. Factor 1- Impact consideration: responsible behavior regarding to the tourist's assessment of their behavior in reducing the environmental and social impacts on the destination site by reducing waste, complying

with rules and regulations, avoiding activities that could affect the environment and being aware of the impacts that may be caused by their tourism activities. Factor 2 - Local connections: behavior that permits contact with and appreciates the local ways of life and culture and establishing interactions/relationships between hosts, guest, and travel companions. After identification of these factors, a two-stage approach was applied to construct the structural equation model for the responsible behavior of Thai tourists as indicated in the following measurement model and structural model.

#### 4.1 Measurement Model

According to Weston & Gore (2006), SEM describes the relationship between observed variables and the construct or constructs those variables are hypothesized to measure. Confirmatory factor analysis (CFA) is used in testing the measurement model. In this study eight latent variables and twenty-nine observed variables were analyzed. The Cronbach's Alpha value was demonstrated to range from 0.79 to 0.91, which is higher than the acceptable cut-off value of 0.70 as suggested by Hair et al. (2006). Moreover, the factor loading values of the items were above 0.60, indicating high convergent validity (Hair et al., 2011), excluding item INT3 which was revealed to have a lower factor loading value from the recommended range. Convergent validity was investigated including Cronbach's Alpha, factor loading, the average variance extracted (AVE), and construct reliability (CR). According to Hair et al. (2011), convergent validity is observed when the CR is higher than 0.6 and AVE is higher than 0.5 (Fornell & Larcker, 1981). Table 1 shows the results of the measurement model assessment which revealed that the convergent validity was established for all constructs, with CR values of 0.87-0.95 and AVE values of 0.48-0.76. Following previous study by Hosta & Zabkar (2021), even though, the AVE value for the construct of environmental and social concern (ENV) and responsible behavioral intentions (INT), were

**Table 1** Measurement Model and the Reliability for Convergent Validity

Constructs and Items	Loading	$\alpha$	CR	AVE
Attitude toward behavior (ATT)		.91	0.95	0.73
ATT1 It is wise to protect the tourist site	.83			
ATT2 It is good to protect the tourist site	.87			
ATT3 Protecting the tourist site is worthwhile	.89			
ATT4 It is beneficial to protect the tourist site	.83			
Subjective Norms (SN)		.90	0.95	0.76
SN1 People who matter to me think I should protect the tourist site	.89			
SN2 People who I respect hope I can protect the tourist site	.91			
SN3 People I am familiar with will take part in the protection of the tourist site	.81			
Perceived behavioral control (PBC)		.87	0.93	0.70
PBC1 I am confident that I can do something to protect the tourist site	.86			
PBC2 It is up to me to do something helpful to protect the tourist site	.82			
PBC3 It is easy to do something helpful to protect the tourist site	.82			
Environmental and social concern (CONCERN)		.77	0.85	0.46
CC1 Pollution and unemployment are two of the most critical problems	.61			
CC2 Natural resources must be preserved/Workers rights must be protected	.75			
CC3 Irresponsible actions of other people are personally affecting my life	.69			
CC4 I become incensed when I think about the harm being done to the plant and animal life, and to some people by the irresponsible actions of other people.	.66			
Pro environmental behavior in everyday life (PEB)		.79	0.87	0.65
PEB5 I use energy saving light bulbs at home	.77			
PEB6 I purchase energy saving appliances	.85			
Responsible behavioral intentions (INT)		.76	.80	0.86
INT1 I am willing to observe tourist notices	.76			
INT2 I am willing to protect the facilities of a tourist site	.74			
INT3 I am willing to properly dispose of litter	.57			
INT4 I am willing to support local products	.69			
Impact consideration (IMP)		.85	0.9	0.52
RES3 I avoid activities that impact the environment	.70			
RES14 I reduce waste during travel	.76			
RES15 I am aware of the impacts I may cause from tourism activities	.80			
RES16 I comply with rules and regulations.	.70			
RES22 I undertake activities that have the least impact to the tourist site	.64			
Local connecting (LOC)		.85	0.89	0.55
RES2 I travel with local transportation	.73			
RES10 I interact with local people	.69			
RES11 I build relationships with people	.73			
RES19 I use energy saving vehicles	.81			

below the 0.50 recommended criterion, the composite reliabilities were greater than the threshold. The convergent validity of these constructs is still adequate.

The evaluation of discriminant validity is also specified in table 2 which shows the inter-factor correlation values of the constructs were between 0.173 and 0.757.  $CI_{CFA}$  inspected 95% CIs of the estimated factor correlations. The results of the upper-lower bound values were lower than .80 (between .153-.797), providing evidence for the model's discriminant validity (Rönkkö & Cho, 2020). It can be concluded that each construct assessed distinct and different concepts, thus the discriminant validity was considered satisfactory. Furthermore, the model was tested with a goodness of fit statistic, the result exhibited that the model has a good fit with the empirical data with  $CMIN/DF = 2.45$ ,  $RMSEA = 0.054$ ,  $CFI = 0.94$ ,  $TLI = 0.93$ . Thus, it can be concluded that the measurement model of the latent variables revealed internal consistency, reliability, convergent validity, and discriminant validity, and can be assembled for SEM analysis.

### 4.3 Structural Model

The structural model was assessed to illustrate the causal relationship among the constructs. The goodness of fit statistic indicated the consistency of responsible tourist behavior model with the empirical data, in which all four criteria were found to meet the acceptable threshold levels recommended by Gefen et al. (2000) ( $CMIN/DF = 2.62$ ,  $RMSEA = 0.06$ ,  $CFI = 0.94$ ,  $TLI = 0.92$ ). The hypotheses testing was then continued with the test of the coefficient of determination ( $R^2$ ) and significance levels of the path coefficients. Figure 2 indicates the standardized path coefficients. The results specified that ATT ( $\beta = 0.095$ ,  $t = 2.438$ ,  $p < 0.05$ ), SN ( $\beta = 0.175$ ,  $t = 3.675$ ,  $p < 0.001$ ), PBC ( $\beta = 0.523$ ,  $t = 8.913$ ,  $p < 0.001$ ), PEB ( $\beta = 0.145$ ,  $t = 3.311$ ,  $p < 0.001$ ), and CONCERN ( $\beta = 0.188$ ,  $p < 0.001$ ) had a significant, positive influence on INT. Thus, H1, H2, H3, H4, H5 were all supported. As such, tourists' PBC is the strongest predictor of responsible behavioral intentions, meaning that when tourists believe that they can perform responsible behavior, they are likely to do so. The feeling of confidence to do something to protect tourist sites represented the highest main contributor of PBC.

**Table 2** Confidence Intervals for the Correlations for the Assessment of Discriminant Validity

Construct	1	2	3	4	5	6	7	8
PEB	1							
ATT	<i>.343</i> [.363,.323]	1						
SN	<i>.384</i> [.424,.344]	<i>.405</i> [.425,.385]	1					
PBC	<i>.453</i> [.483,.423]	<i>.489</i> [.509,.469]	<i>.64</i> [.68,.60]	1				
CONCERN	<i>.488</i> [.528,.448]	<i>.551</i> [.531,.531]	<i>.509</i> [.539,.479]	<i>.581</i> [.611,.551]	1			
INT	<i>.492</i> [.532,.452]	<i>.588</i> [.608,.568]	<i>.559</i> [.599,.519]	<i>.757</i> [.797,.717]	<i>.579</i> [.609,.549]	1		
IMP	<i>.502</i> [.532,.472]	<i>.541</i> [.551,.531]	<i>.567</i> [.597,.537]	<i>.746</i> [.776,.716]	<i>.597</i> [.617,.577]	<i>.744</i> [.774,.714]	1	
LOC	<i>.358</i> [.408,.308]	<i>.173</i> [.193,.153]	<i>.558</i> [.608,.508]	<i>.588</i> [.638,.538]	<i>.449</i> [.489,.409]	<i>.517</i> [.567,.467]	<i>.694</i> [.734,.654]	1

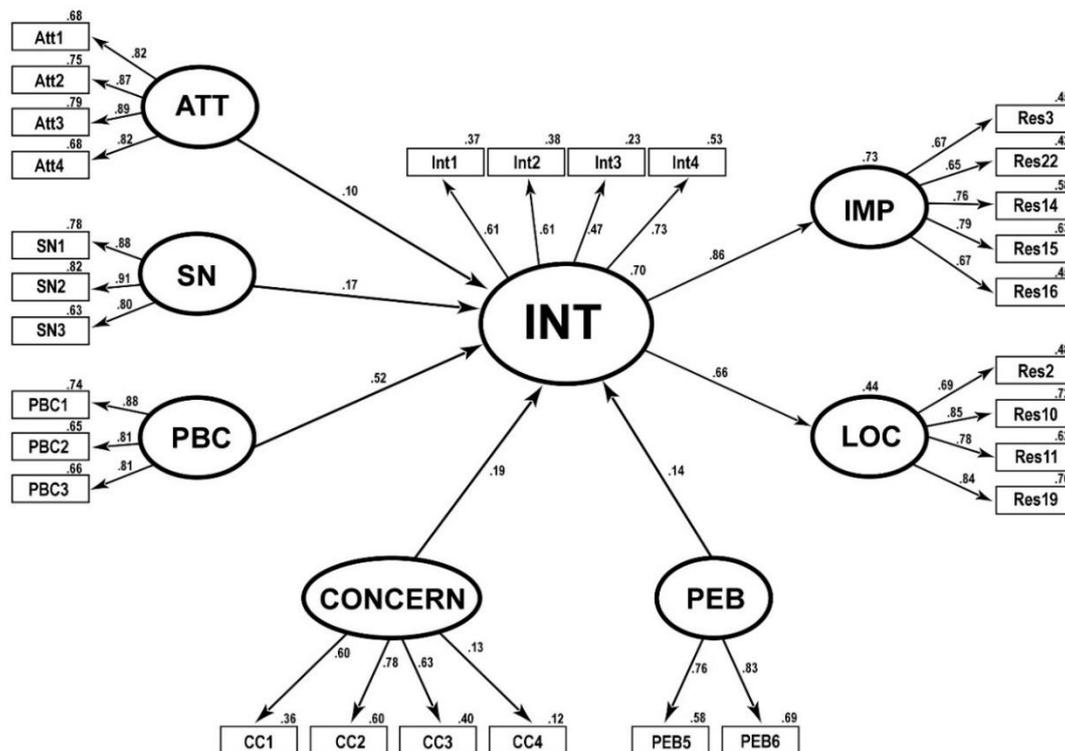
Note: Values below the diagonal (italicized) represent the correlations between the latent constructs and (in square parentheses) represent the correlation values of the latent constructs at the 5% lower / upper bound.

CONCERN was the second main predictor of responsible behavior with the item of preserve natural resources and protect worker rights as the main contributor. The third predictor of responsible behavior is PEB which indicates the extent of pro-environmental habits in everyday life, specifically purchasing energy saving appliances acts as the main influence in this construct. While SN is presented as the fourth predictor exhibiting that key reference people could put pressure on the tourists' responsible behavior intentions, especially people that hold ones' respect. Nevertheless,

ATT is presented as the weakest predictor, it can still explain tourists' positive attitude toward responsible behavioral intentions and show their willingness to perform as it is seen as worthwhile to protect the tourist sites. Regarding H6, responsible behavioral intentions were found to have a positive effect on responsible behavior in both dimensions, impact consideration and local connection. The results identified that INT has a significant positive effect on IMP ( $\beta = 0.857$ ,  $t = 11.349$ ,  $p < 0.001$ ) and LOC ( $\beta = 0.663$ ,  $t = 9.67$ ,  $p < 0.001$ ). Statistical analysis of the

**Table 3** Study Hypotheses Results

Path	$\beta$	S.E.	C.R.	p-value	Test results
INT < ATT	.095	.054	2.438	.015	H1 Supported
INT < SN	.175	.041	3.675	.000	H2 Supported
INT < PBC	.523	.058	8.913	.000	H3 Supported
INT < CONCERN	.188	.044	2.35	.019	H4 Supported
INT < PEB	.145	.039	3.311	.000	H5 Supported
IMP < INT	.857	.055	11.349	.000	H6a Supported
LOC < INT	.663	.091	9.67	.000	H6b Supported



CMIN/DF = 2.62, RMSEA = 0.06, CFI = 0.94, TLI = 0.92

**Figure 2** Structural Model

data revealed that tourists' awareness about the impacts from tourism activities and waste reduction during a trip were the main contributors to responsible behavior, and the impact consideration dimension. Meanwhile, interacting with local communities had the main effect in building up tourists' responsible behavior in the local connection dimension. The analysis revealed support for all hypotheses (See Table 3).

Moreover, the R-square ( $R^2$ ) values, which indicate the amount of variance of the dependent variables that is explained by their predictor variables, were calculated. Henseler et al. (2009) provided the following rule of thumb for acceptable  $R^2$  values, whereby values of .75, .50, and .25 for constructs in the structural model refer to substantial, moderate, or weak influence, respectively. In this study, the ability of model to predict responsible behavioral intentions (INT) is 70% ( $R^2 = 0.699$ ). The model was also able to explain the variance in responsible behavior in impact consideration behavior (IMP) by 73.4% ( $R^2=0.734$ ) and in local connection behavior (LOC) by 44% ( $R^2=0.44$ ), which substantially and moderately accounted for responsible behavioral intentions respectively (See figure 2). This is better than traditional models, which on average explain around 50% of variance and 30% of behavior (Bamberg & Moser, 2007).

## 5. DISCUSSION AND CONCLUSION

Sustainability in action via responsible tourism has been enhanced as one means to the implementation of sustainability and the pathways for meeting the 2030 Sustainable Development Goals (SDG) of the United Nations. Measuring and monitoring tourists' responsible behavior is critical. This study revealed the responsible behavior of Thai tourists to have two underlying dimensions: Impact consideration (IMP) and Local connection (LOC). One of the key results of the study is that tourists' responsible behavior reflects the social and environmental pillars of sustainability and is in line with the Tips for

Responsible travelers by the World committee on Tourism Ethics (2020) and the Cape Town Declaration (2002). These two dimensions confirm the theory of responsible tourism as it minimizes negative impacts, makes positive contributions to the conservation of nature and cultural heritage, and engenders respect between tourist and their hosts. The first dimension, Impact consideration refers to the tourist's assessment of their behavior in avoiding negative impacts on the tourist site. Items such as avoiding activities that impact the environment, being aware of the impacts that may be caused by tourism activities, reducing waste during travel, and undertaking activities which have the least impact on the tourist site, are related to the fundamental frame of reference for responsible and sustainable tourism, within the global code of ethics for tourism (World Tourism Organization, 2001). As detailed in the article, three states that all stakeholders in tourism development should ensure are safeguarding the natural environment, that all forms of tourism development are conducive to saving rare and precious resources, in particular water and energy, and avoiding so far as possible waste production; these three states should be given priority, and encouraged by national, regional, and local public authorities. The second dimension, local connection, refers to the tourists' responsible behavior in that they are open to local experiences with meaningful connection and understanding of local cultural, social, and environmental issues, appreciating the local way of life and culture, and establishing interactions/relationships between hosts, guests and travel companions, consistent with the Cape Town Declaration (2002) and Dias et al. (2021).

The responsible tourist profile indicates that most respondents from the Generation Y and Z cohorts travel for relaxation purposes to beach destinations, and frequently access internet as the main source of their travel information. These findings are consistent with previous studies (Fan et al., 2022; Wood, 2022) that millennials or Gen Y and Gen Z are empowered by technology and are important

and effective stakeholders who can make valuable contributions towards any sustainable environmental development. These young travelers seek adventure, fun and escape from their daily routine and look for authentic local experiences and socialization (Nowacki et al., 2023). Another important result of the study confirms the theoretical dimensions of TPB; ATT, SN and PBC that affect the tourists' responsible behavioral intentions. The path coefficients specify PBC as the most positive and significant influence on tourists' responsible behavioral intentions, in line with previous studies (Ajzen, 1991; Fenitra et al., 2021; Panwanitdumrong & Chen, 2021; Qiu et al., 2022) that remarked on PBC as the most important part of the TPB theory where tourists' responsible behavior is strongly influenced by their confidence in their ability to perform. Consequently, interventions to increase tourists' PBC could lead to more responsible actions. To enrich and provide further justification, the most interesting insight derived from the study is that the feeling of confidence in what one can do to protect the tourist sites acts as the main contributor to PBC. As suggested by Kidwell & Jewell (2003) both internal and external controls affect successful behavioral performance and are distinct constructs of PBC. Strengthening tourists' perception of the ease of the responsible actions may influence confidence in the ability to perform responsible behavior with the expectancy of success. Subjective norms were also presented as a predictor of responsible behavioral intentions indicating that tourists' responsible behavior can be guided by key reference people in their life. Previous studies (Gautam, 2020; Panwanitdumrong & Chen, 2021) had suggested important key persons with social bounds and interpersonal bonds, including friends, family, colleagues, travel companions, famous people, celebrities, and influencers, all of whom could affect responsible behavior. Setting up good examples of sustainability practices and guidelines from these people could enable the willingness to perform responsible behavior as a tourist. The last component of TPB,

attitudes toward behavior, was found to have a significant and positive impact on tourists' responsible behavioral intentions. Even though it was presented as the weakest predictor among the three variables, the positive feeling toward protecting the tourist site can still drive tourists' responsible behavioral intentions. These findings are consistent with the results of studies conducted by Gautam (2020) and Panwanitdumrong & Chen (2021) which applied the theory of planned behavior in the context of environmentally friendly behavior and responsible behavior in the Northern part of India and Thailand. The findings exhibited that attitudes toward behavior are the least important, while perceived behavioral control was the main predictor, followed by subjective norms. This is in contrast with several studies that established attitudes toward behavior as the strongest predictor (Wang et al., 2019; Intayos et al., 2021; Zhu & Thogerson, 2023). Ajzen (1991) suggested that attitude, subjective norms, and perceived behavioral control, in the prediction of intentions, is expected to vary across behavioral characteristics, sample groups, and the situation of the study (Intayos et al., 2021). In the results of previous studies (Kang & Moscardo, 2006; Leonidou et al., 2015; Napontun & Senachai, 2023), it was confirmed that cross-cultural differences exist in the attitudes towards responsible tourist behavior, which were constructed from values and reciprocal altruism.

Additionally, Ajzen (1991) and Han & Stoel (2017) suggested the inclusion of additional predictors that could explain intentions or behavior. Thus, rather than assuming the three main TPB predictors, it would be useful to the tourism research community to investigate variables perceived to have an impact on tourists' responsible behavior. Few studies have considered the role of social and environmental concern influencing responsible behavioral intentions (Han & Stoel, 2017; Hosta & Zabkar, 2021). This study emphasized both environmental and social concerns as the second main predictor of responsible behavior. As most of

the respondents in this study were in the millennial and generation Z, who are described as green value consumers who have confidence in the possibility of creating a better future and have more concern about saving the planet (Bonera et al., 2020), they perceive value in preserving natural resources, minimizing pollution, as well as protecting workers' rights and employability. This study also linked the relationship between pro-environmental behavior in everyday life, resource efficiency behavior and responsible behavioral intentions. This is consistent with studies of Sthapit & Bjork (2017) and Xu et al (2020) which pointed out the association between domestic and tourism pro-environmental behavior. The empirical evidence supports the extending body of knowledge on environmental spillover effect from habits at home into the tourism arena. One of the reasons for the possible spillover is that the habit is of a repetitive nature of goal-directed behavior, thus this behavior is retained while on vacation (Sthapit & Bjork, 2017).

The theoretical achievement of this study is the establishment of an extended TPB model with two additional predictors including CONCERN and PEB, which explain the formation of tourists' responsible behavioral intentions by 70% ( $R^2=0.70$ ). Despite various studies which have stated that people who are committed to the environment and have PEB behave less sustainably on holiday (Barr et al., 2010; Wu et al., 2021), the results of the current study are supported by empirical evidence that spillover effects of PEB resulted in responsible behavior in the holiday context which is consistent with existing studies (Whitmarsh et al., 2018; Xu et al., 2020; MacInnes et al, 2022). The new theoretical explanation defined that pro-environmental behavior in everyday life is one of the key driving factors of tourists' responsible behavior. At the same time, CONCERN has the second greatest influence on tourists' responsible behavioral intentions, implying that tourists are concerned about environmental issues focusing on preserving natural resources and pollution, as well as the

social concerns of workers' rights, irresponsible actions, and unemployment. The findings support the concept that concern for the environment and social interests can restrict the responsible behavior of Thai tourists, corresponding to the work of Hosta & Zabkar (2021). The current study results reinforce claims about the extended framework of the Theory of Planned Behavior as there are still many underlining beliefs regarding behavioral determinants (Ajzen, 1991; Han & Stoel, 2017).

### 5.1 Research Limitations

These findings provided an introductory analysis of Thai tourists' responsible behavior. However, there are some limitations to the study. Due to the Covid-19 pandemic situation, an online questionnaire was applied and was mainly completed by university students and alumni who had taken a sustainable tourism, creative tourism, or eco-tourism course, which could enable selection bias for those who might have avoided expressing their true opinions due to ethical pressure. Second, the majority of the respondents were in the Generation Y and Z cohorts, aged between 19-41 years old. Therefore, the generalizability of the study findings does not have a wide scope. Improvement of the sampling method, using a quota sampling technique with a comparative approach is recommended for future research. In addition, the conceptual model can be enhanced with other variables that might predict responsible behavior such as self-efficacy, personality, social engagement, and place identity. Lastly, the research was conducted in Thailand with a sample of only Thai tourists. These challenges need to be solved in future studies, with extended prediction variables for responsible behavior, a more diverse sample including different age cohorts, on site data collection, and measuring tourists' responsible behavior with inbound tourists from different nationalities in order to monitor and understand their behavior.

## **5.2 Implications**

The practical value of this work lies in suggesting that tourists' responsible behavior is directed toward impact consideration and local connection. The results can provide several practical implications for tourism stakeholders (e.g., destination manager, community residents, tourism business and government) to enhance destination sustainability. Destination managers and marketers can encourage tourists' responsible behavior by implementing meaningful experiences with various low-impact tourism activities, for instance horseback riding, scenic walks, hiking, cycling, kayaking, etc. More activities that interact with local people and travel companions also need to be taken into consideration such as interpretive nature trails, cookery courses, art and craft workshops, camping, and volunteering activities. It is beneficial to make tourists aware that responsible behavior is not something difficult to achieve. Building tourists' confidence can be initiated by various stakeholders in creating simple activities with high impact on the ability to protect the tourist site. Destination managers should enhance the natural reserve policies such as collecting and returning the garbage generated during a visit, reducing, re-using, and recycling solid waste during a trip, providing efficient and eco-friendly transportation (e.g., bicycle, scooters, electric vehicle). Certification of tourist sites as sustainable destinations, low carbon destinations, green destinations, or zero waste destinations, could confirm that destination is committed to making a low impact regarding social, cultural, and environmental aspects, which in turn could be a key magnet for not only Thai responsible travelers, but also for world travelers. Local communities and local guides can incorporate creative activities for engagement with locals by exchanging way of life experiences between hosts and guests. Locally made handcrafts and products should be developed with sustainable concepts representing the uniqueness of the destination, such as recycled souvenirs, and

sustainable local products.

The findings will also be useful in providing insight to government agencies, policy makers and tourism businesses to enhance destination sustainability. This study highlights that perceived behavioral control, subjective norms, and environmental and social concern, have highly significant effects on intentions to behave responsibly. In practice, these concepts can be executed by promoting responsible campaigns and events to improve tourists' understanding of their role in responsible action. Integrated marketing communication including interactive ads, through social media, and short movie ads, could enable tourists' perception of the ease in being involved in responsible actions and be reflected in increased confidence and the feeling that it is worthwhile to perform responsible behavior. In addition, effective social media content of responsible practices with famous people, celebrities and influencers can provide a stimulus for responsible behavior. Tourism business in the area could be a part of responsible practices by employing a green policy for reducing the consumption of water and electricity in their establishment. Moreover, related government departments should enhance the publicity of education and knowledge about environment and social problems to increase tourists' concern. The empirical evidence suggests a possibility of pro-environmental behavior in everyday life predicting responsible behavior as a tourist, using energy saving light bulbs, and energy saving appliances as a proxy. Developing effective interventions to trigger more responsible behavior can be implemented, such as promoting energy saving and other pro-environmental behavior nationwide. Finally, the findings reveal that the internet is the main source of travel information for responsible tourists (92.8 %), thus responsible digital platforms should be created to promote sustainable holidays for tourists, as well as providing a code of conduct for responsible tourists pre, during, and post-trip. Information about green, eco-friendly, and responsible tourism destinations and tourism businesses

should be provided along with responsible travel agents and tour operators who organize responsible travel trips effectively.

## 6. CONFLICTS OF INTEREST

There is no conflict of interest to declare.

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