Academic Research Paper

Sustainable Tourism Intentions: Extending the Theory of Planned Behavior.

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Abstract: In recent years, there has been a notable shift in people's attitudes towards the environment, with an increasing emphasis on seeking out sustainable and eco-friendly destinations for their travel experiences. This evolving mindset has given rise to the pressing need for destinations to position themselves as a sustainable option. As the demand for services that prioritize sustainability continues to rise, the concept of a sustainable destination image has emerged as a pivotal marketing strategy to attract environmentally conscious tourists. This study employs the Theory of Planned Behavior (TPB) to delve into tourists' intentions toward sustainable tourism. investigate the sustainable intentions of tourists, a quantitative study has been conducted in Naples (Italy) with a sample size of 503 participants, including both Italian and foreign tourists. The SmartPLS tool was used to evaluate the measurement and structural models using the partial least squares structural equation modelling method (PLS-SEM). After evaluating the model, the research hypotheses are tested to measure the influence of Sustainable Tourism Intentions. This research makes a significant contribution to the Theory of Planned Behavior by introducing and integrating two innovative constructs: Environmental Awareness (EA) and Sustainable Destination Image (SDI). By incorporating these elements, this research sheds light on these factors' critical role in shaping sustainable tourism intentions. The study explores the relationship between sustainable tourism and tourist behaviors, advocating for a collaborative approach between governments and service providers to promote sustainability, with destination image playing a pivotal role in shaping tourist behavior. Governments can drive positive change through regulations and incentives for eco-friendly practices. Prioritizing a sustainable destination image is essential for attracting environmentally conscious tourists, who increasingly seek eco-friendly destinations.

1. Introduction

Climate change is a pressing issue for governments, businesses, and individuals around the globe. Consequently, incorporating sustainable practices has become universal across all markets, industries, businesses, and consumer behaviors. According to climate science, the global climate will change at an unprecedented level in the next 50 years. Greenhouse emission is the primary cause of climate change, and carbon footprints are increasing with every trip and destination choice a tourist makes. Tourism is an industry that is being impacted and contributes to climate change. It has been estimated that 375 million tourists have travelled across the world in 2023 (UNWTO, 2023). The interphase between climate change and tourism is multifaceted; carbon footprints negatively affect the climate, and natural disasters like rising sea levels, seismic and volcanic activity, extreme weather conditions and water/air pollution also disrupt tourist activities (Scott et al., 2011). To mitigate climate change, the sustainable tourism agenda was proposed by the United Nations through 2015 sustainable development goals. Hence, a rich body of literature emerged on the greenhouse effect (Sun, 2016), sustainable tourism (Fermani et al., 2020), destination resilience (Della Corte et al., 2021), sustainable travel choices (Weber, 2019), green human resources, Internet of Things (IoT) and green supply chain (Morande et al., 2023), food waste in tourist places, pollution and tourism (Zhang et al., 2020), recycling, reuse, and sustainable purchase intentions (Pan & Chen, 2019). All these studies concentrate on tourist providers' and tourists' environmental consciousness/awareness, while the gap between intentions and behaviors remains unresolved in the sustainability literature (Juvan & Dolnicar, 2014).

To reduce this gap, the mixed top-bottom approach was incorporated to attain sustainable tourism, involving the government and industries to increase awareness and promote sustainable goods and services. Sustainable tourism managers and governments prioritize sustainability. Their ultimate goal is to maximize the potential benefits that sustainable tourism attractions can offer, in terms of establishing long-term relationships with local and international visitors (Cheung & Li, 2019). To achieve this, tourism operators and associated agencies focus on foreign and local tourists and implement appropriate promotional strategies, as well as improvements in the international brand equity of the destination sustainable image. According to a report developed by the online travel agency Booking.com, 4768 travelers lived in environmentally friendly accommodations in 2017 (Sustainable Travel Report, 2017). However, eco-tourism also poses some risks despite offering economic benefits and revenues. For instance, it may have negative impacts on the culture of indigenous societies, ecology such as hunting or fishing, and the environment, like waste at natural sites (Uwadiegwu & Ofuani, 2014). In contrast, several studies reported positive impacts of eco-tourism on wildlife (Weaver, 2002; Lanier, 2014). Similarly, eco-tourism also alleviates two third of the poverty according to Human Poverty Index (Ferraro & Hanauer, 2015). However, further research is needed to determine the potential positive impacts of eco-tourism.

In the tourism industry, economic and health crises can be detrimental, but they can also present opportunities for growth and development. One of the recent health crises was the COVID-19 virus

outbreak in 2021, recorded as the worst year for tourism, while in later years, the world observed revenge tourism due to lockdown restrictions for two years (UNWTO, 2020; Abdullah, 2021). Nonetheless, the pandemic has negatively impacted the tourism industry and brought about changes in tourists' behaviour and priorities. As a result, the impact of the pandemic on U.S. counties explains that tourists now prefer outdoor activities and leisure time in natural settings rather than being in closed indoor settings of urban areas. (Han, 2023). Buckley And Westaway (2020) also concluded that outdoor recreation tourism activities increase mental health benefits. The European Commission has recognized that tourists are now more inclined towards rural and nature tourism instead of mass tourism (Marques et al., 2020). This trend presents an opportunity to align with the Sustainable Development Goals (SDGs), which entail sustainable economic growth, responsible consumption and production, as well as sustainable use of oceans. This shift towards eco-tourism has the potential to make a vital contribution towards several SDGs (Marques et al., 2020; Dwyer, 2022).

Furthermore, sustainable tourism is aimed at attracting domestic and foreign tourists and preserving the country's natural resources (Cheung & Li, 2019). Therefore, destination managers are offering virtual tours, online site visits, and traveller reviews to create a positive destination image using virtual reality technology (Akhtar & Khan, 2019). Sustainable tourism intentions (SIN) and behavior are topics of debate, influenced by complex emotions, and personal and social values (Miller et al., 2015). Intentions to visit an environmentally friendly destination can be motivated by pro-social values (i.e., the well-being of others) or driven by self-interest. In 2023, 69% of world travelers consciously opted for sustainable travel options (WTTC, 2023). As sustainable tourism has gained popularity, scholars used different frameworks and theories (e.g., TPB (Ajzen, 1991), Theory of Reasoned Action (Bandura, 1986; Fishbein et al., 2007) and Social Cognitive Theories) to understand consumers' sustainable purchase intentions and their impact on green consumer behaviour. According to Ajzen (1991), attitudes (ATT), subjective norms (SN) and perceived behavioural control (PBC) shape intentions, which leads to purchase behaviour (PB). Several scholars suggest that including additional constructs in behavioural theories can increase the power of the model's prediction. For instance, American Express Global Business Travel has offered *carbon credits* to its business travelers to mitigate carbon emissions damages, forcing travelers to make sustainable travel choices (WTTC, 2023). Similarly, (e)word of mouth, environmental attitude (Albarq, 2013; Mohaidin et al., 2017), positive destination image (O'Leary & Deegan, 2005; Som et al., 2012), perceived service quality (Li et al., 2011) and value orientation (Rouven Doran, 2016) are constructs which positively related to sustainable intentions. Therefore, the current study extends the TPB original model to include Sustainable Destination Image (SDI) and Environmental Awareness (EA) as additional constructs to measure SIN. Hence, we propose that SDI and EA may increase sustainable tourism purchase intentions by extending the TPB model. This study collected data from real-time tourists to gain insights into sustainable intentions.

Previous research has demonstrated that residents' attitudes toward tourists can significantly influence a destination's image (Ekinci et al., 2007). Therefore, by gathering data from real time tourists, this study aims to provide a more comprehensive understanding of tourists' intentions and their impact on sustainability. Also, destination managers can increase tourist flows by fostering destination's green image and optimising resources by exploiting the determinants of future behavioral intentions. Within the framework of this study, building awareness of sustainability is viewed as a multifaceted process involving the development of knowledge, principles, attitudes, skills, and aptitudes among individuals and social groups, ultimately contributing to an enhanced quality of life (Ekpoh & Ekpoh, 2011).

Previous studies substantiate the influence of EA (Kim & Han, 2010; Masud et al., 2016) and SDI (Abdullah et al., 2019) along with TPB. Similarly, the research has both theoretical and practical implications. The theoretical contribution is significant in terms of the sample's relevance to the tourism industry. It lies in understanding the complex relationship between SIN, SDI, and EA. The latter part of the study focuses on the evidence from current literature, hypothesis development, results, and discussion. In conclusion, the study sheds light on the factors influencing sustainable tourism intentions and the selection of sustainable destinations.

2. Literature review and theoretical framework

Sustainable tourist destinations are gaining popularity as tourists become increasingly aware of the importance of protecting natural and cultural resources. These destinations balance the benefits for tourists and host communities, emphasizing economic, environmental, and socio-cultural well-being while focusing on future opportunities alongside present needs (Mohaidin et al., 2017). Ajzen (1991) suggested that a consumer's positive attitude towards a specific behavior positively influences their intention. Effective factors reinforcing sustainable tourism intention include environmental knowledge, sensitivity to environmental outcomes, destination attachment, commitment to environmental sustainability, value perception, and eco-tourism self-esteem (Chiu et al., 2014; Cheng & Wu, 2015; Rahman & Reynolds, 2016). However, less empirical evidence is available on intentions in the sustainable tourism context. EA and SDI are necessary constructs that may impact, alter and regulate consumer sustainable tourism intentions (Chiu et al., 2014). According to Law et al. (2017), EA is a strong predictor of green consumption, and Huang et al. (2014) also revealed that consumers with higher environmental awareness are more likely to purchase eco-friendly tours and trips. Therefore, SDI which aligns with the construct of EA may influence consumer choice of destination. The awareness of environmental issues is on the rise, as highlighted by the European Commission (2020). As a result, tourists are inclined to perceive destinations practicing environmental sustainability more favorably, potentially influencing destination competitiveness (Mihalic, 2000; 2016).

Accordingly, destinations often engage in green marketing strategies and initiatives, aiming to enhance their image as environmentally conscious. Extant literature on the topic underscores the impact of environmental image on destination loyalty (Lee & Xue, 2020), the adoption of pro-environmental behavior by tourists at the destination (Su & Swanson, 2017; Lee & Jeong, 2018), as well as by residents (Su et al., 2019; Wang et al., 2020). Moreover, several studies revealed that destination image influences consumers' choice of destination. Crompton et al. (1992) examined that a positive destination image can increase consumers' length of stay. Bigne et al. (2001) found that the perceived quality of a destination is influenced by its image. Nguyen et al. (2023) studied how travel motivation positively affects sustainable tourism intention but does not influence attitudes towards sustainable tourism.

The study found that consumers' personal choices influenced their attitudes towards destinations more than the sustainable image of the destination itself.In contrast, several studies found a positive relationship between destination image with perceived satisfaction, quality, and behavioral intentions (Nguyen et al., 2023). Attractive images of destinations also amplify the efforts of destination marketing. These factors, examined within the extended TPB model, span from tourists' cognitive to affective responses. Accordingly, the proposed model is presented in figure 1.

Figure 1. The proposed model.
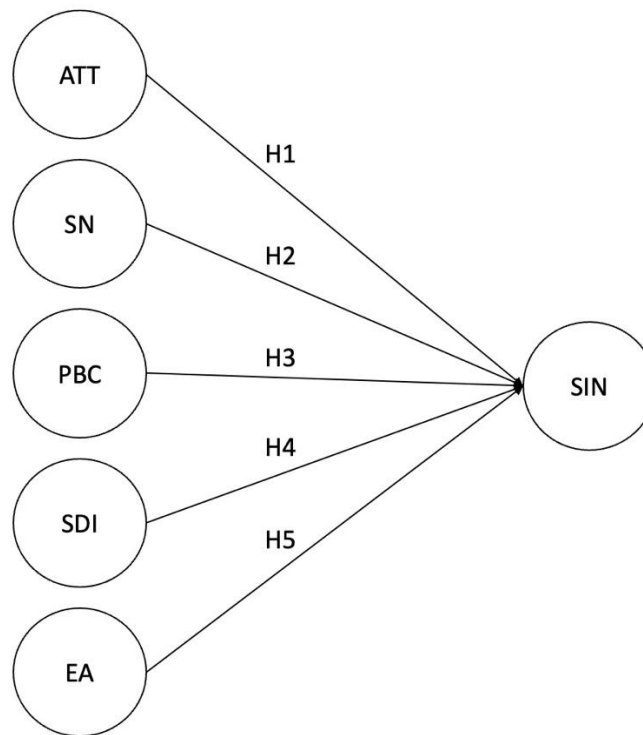
Source: Authors' elaboration

2.1. Hypothesis development

2.1.1. Attitude

A pivotal element in behavioral intentions is the attitude (Ajzen, 1991; Han et al., 2010). It can be defined as an individual's comprehensive assessment of a specific behavior. Two key factors shape a person's attitude: beliefs about the impacts of engaging in a particular behavior and convictions concerning those effects (Ajzen, 1991). According to Ajzen (1985), the linkage between intentions and attitudes toward a behavior is direct and positive. This relation has been confirmed in many studies, such as Yarimoglu & Gunay (2020). Individuals' attitudes represent a psychological assessment of the value, wisdom, necessity, and benefit associated with engaging in a specific action. Attitude, in accordance with the expectation-disconfirmation paradigm, generates motivational forces that drive behavioral intentions (Ruan et al., 2022).

Numerous studies revealed a significant association between attitude and behavioral intention (Kim & Hall, 2019; Safshekan et al., 2020; Nowacki et al., 2021; Sujood et al., 2023). This study explores attitudes through the lens of sustainability. When consumers hold a more favorable attitude toward a specific behavior, they are more inclined to participate in that behavior. Cheng et al. (2006), Han et al. (2010), Fiorello (2011) and Manosuthi et al. (2020) observed that individuals' environmental concerns manifest in their interest in various environmental domains such as recycling, saving energy, and green consumption. Elgaaied et al. (2013) demonstrated that environmentally conscious individuals tend to avoid less environmentally friendly products and may boycott irresponsible enterprises. In the realm of tourism, François-Lecompte and Prim-Allaz (2011) found that tourists

exhibit more responsible behaviors when they are interested in sustainable tourism, which may include actions like traveling shorter distances and making sacrifices for environmental conservation. Therefore, the following hypothesis is proposed:

H1: Attitude has a positive influence on sustainable tourism intention.

2.1.2.   Subjective norms.

The "Subjective norms" is the second component of behavioral intention within the TPB framework, defined by Ajzen (1991, p.188) as "the perceived social pressure to perform or not perform the behavior". It involves an individual's beliefs about how others expect them to behave and their commitment to align with the views of significant referents concerning behavior (Ajzen, 1980, 1991; Ajzen & Madden, 1986). In essence, subjective norms reflect the perceived perspectives of influential individuals close to the consumer who shape decision-making (Park, 2000; Han et al., 2010). Existing literature on sustainability outlines a positive association between subjective norms and behavioral intention (Juschten et al., 2019; Khan et al., 2019; Kim & Hall, 2019; Nowacki et al., 2021). The measure of how crucially customers value eco-friendly tourism destinations is considered a part of subjective norms (Ashraf et al., 2020b).

In the context of this study, higher social pressure makes consumers more likely to choose eco-friendly destinations for tourism experiences. Previous studies have consistently demonstrated the positive impact of subjective norms on intention (Tonglet et al., 2004; Chien et al., 2012; Chen & Tung, 2014). Diallo et al. (2015) demonstrated that social engagement positively influences the socially responsible behavior of tourists, emphasizing the importance of environmental and social aspects in destination choices. François-Lecompte & Prim-Allaz (2009) defined responsible tourist behavior in terms of factors such as willingness to sacrifice comfort, choosing responsible tour operators, intention to safeguard local resources, avoiding excessive travel distances, and a desire to protect cultural and natural heritage. Subjective norms encourage individuals to modify their conduct, particularly in environmentally friendly and socially responsible behavior (Ulker-Demirel & Ciftci, 2020). Individuals subjected to more social pressure are likelier to practice environmentally responsible behavior (Khan et al., 2019). Consequently, the following hypothesis is proposed:

H2. Subjective Norms has a positive influence on sustainable tourism intention.

2.1.3.   Perceived Behavioral Control.

The third component of behavioral intention is PBC, defined by Ajzen (1991, p.188) as "the perceived ease or difficulty of performing a behavior." PBC reflects an individual's opinion on whether a behavior is simple or complex to execute (Ajzen, 1991; Kim & Han, 2010). PBC assesses how effectively one can manage factors that may assist or hinder activities necessary to deal with a particular situation (Han et al., 2010). It reflects the perspective of individuals on whether the activity of interest is easy or difficult to accomplish (Ajzen, 1991). When individuals perceive the presence or absence of opportunities or resources for a specific behavior and evaluate the importance of these opportunities or resources for achieving that behavior, they are considered to have high perceived behavioral control (Ajzen, 1991).

In tourism, PBC is understood as the perceived ease or difficulty of visiting eco-friendly destinations. In the context of sustainable behavior, some studies demonstrated a significant relationship between PBC and behavioral intention (Chen & Tung, 2014; Han, 2015; Toni et al., 2018; Wu & Chen, 2018). Others have found little or no significant association (Pikturnienė & Bäumle, 2016; Fenitra et al., 2021; Abdelwahed et al., 2022). Accordingly, the following hypothesis is proposed:

H3. Perceived Behavioral Control has a positive influence on sustainable tourism intention.

2.1.4. Sustainable Destination Image.

In marketing, destination image is an important construct to measure perceptions, emotion, personality and image of the brand (Crompton et al., 1992). Similarly, sustainable destination image is an idea or expectation of eco-friendly place (Kim & Richardson, 2003). Environmental harm and deterioration can result in unfavorable travel experiences and perceptions, consequently affecting tourists' likelihood of revisiting. Conversely, it is imperative for authorities to adeptly consolidate resources to foster sustainable destinations, aligning with trends, preferences, evaluations, and opinions derived from the demand side of tourism (Salvatierra & Walters, 2017). Diallo et al. (2015) perceive the actions of public administrations as responsible public management, benefitting the local community, natural environment, and economic surroundings.

Public authorities' actions have contributed to the promotion of more responsible tourism. The government should implement measures to control the influx of tourists to scenic spots and prevent gatherings (Dang, 2022). In the context of this study, the SDI plays a crucial role in shaping SIN. Actions taken by public administrations contribute to responsible public management, influencing the perception of tourists. Factors identified in previous research, such as environmental knowledge, sensitivity, place attachment, and commitment to nature, contribute to tourists' responses' cognitive and affective aspects (Ashraf et al., 2020a). Furthermore, the attractiveness of tourist destinations and the SDI play a significant role in explaining SIN. As Dang (2022) suggests, efforts to control tourist flows and project a harmonious and safe image are vital for restoring and enhancing tourists' confidence in sustainable tourism practices. Consequently, the following hypothesis is proposed:

H4. Sustainable Destination Image has a positive influence on sustainable tourism intention.

2.1.5. Environmental Awareness.

The work of Singh and Gupta (2013) underscored the impact of EA on consumption behavior, aligning with the undeniable reality of climate change as indicated by shifting climate patterns, rising sea levels, and more severe weather conditions (UNSD, 2022). Acknowledging the relevance of sustainability issues (Hall, 2016), younger generations demonstrated an inclination toward embracing green values, earth resource preservation, reduced consumption, and contributing to society's sustainable development (Seitz et al., 2014). Gen Z plays a significant role in sustainable development, showcasing heightened awareness of environmentalism, resource conservation, and reduced consumption (Entina et al., 2021). Considering these premises, the following hypothesis is suggested:

H5. Environmental Awareness has a positive influence on sustainable tourism intention.

3. Methodology

3.1. Data collection and measures.

To collect data, a survey has been submitted to tourists visiting the city of Naples (Italy) from April to July 2023. The questionnaire has been developed in a digital version, using Microsoft Forms service. It was administered in areas primarily visited by tourists, such as the historical city center, the airport, the central rail station, and the port. Respondents were asked if they were tourists in Naples before they were requested to complete the online questionnaire. Then the researchers shared the login link through QR Code. In addition, the same question (Are you a tourist in Naples?) has been included in the questionnaire for the purpose of double-checking the sample. In addition, following the scenario approach suggested by Weber (1992), the authors provided a brief description containing an explanation of sustainable travel attributes. The use of scenario is conceived useful for exploring how certain factors can affect the decision-making processes of respondents. The study adopts a survey instrument with a seven-point Likert scale to collect quantitative data. The questionnaire consisted of two sections: the first contained 19 items, using a seven-point Likert scale (1 = Strongly disagree, 2 = Disagree, 3 = Somewhat disagree, 4 = Neither agree nor disagree, 5 = Somewhat agree, 6 = Agree, 7 = Strongly Agree) (Podsakoff et al., 2003), focusing on various aspects of sustainable tourism. The second part gathered demographic and personal information, such as gender, age, income, and education. The questionnaire has been developed using scales derived from previous studies. In particular, SIN has been assessed using three items adapted from Nguyen et al. (2023), ATT has been evaluated by three items adapted from Dang (2022), SN has been measured by three items adapted by Ibnou-Laaroussi et al. (2020), PBC has been assessed using three items adapted from (Chuang et al., 2018), SDI and EA have been measured, adopting three items for each, derived from Ashraf et al. (2020b).

To mitigate retrieval biases, items from different constructs were intermixed within the scaled-response questions, following recommendations from prior studies (Podsakoff et al., 2003; Zhang et al., 2020). The measurement items are reported in detail in the table 1. The face validity of the questionnaire has been confirmed through a pilot test involving 40 respondents from the target group. Subsequent revisions have been made before the finalization of the questionnaire. Data analysis was conducted using Smart-PLS software. Sample size requirements were determined based on the recommended sample size with a statistical power of 80% (Green, 1991). The study's sample consisted of 503 observations. Since the sample satisfied the size requirements that Cohen (1988) suggested, it has been considered appropriate for the research. In this study, the dependent variable is SIN, and the factors influencing it are latent variables (LVs) that are not directly observable. These LVs are measured by multiple observed indicators, often referred to as manifest variables (MVs). Consequently, Structural Equation Modeling (SEM) has been considered the most suitable statistical methodology for the analysis.

Table 1. The measurement items.

Variable	Item	Indicators	Source
Sustainable tourism intention (SIN)	SIN1	I will prioritize sustainable travel options, even if they are more expensive.	(Nguyen et al., 2023)
	SIN2	I intend to support and participate in tourism activities that promote sustainability.	
	SIN3	I am actively considering sustainable tourism for my next trip to make a positive environmental contribution.	
Attitude (ATT)	ATT1	I enjoy practicing sustainable tourism.	(Dang, 2022)
	ATT2	I consider sustainable travel to be a valuable choice.	
	ATT3	I believe that sustainable tourism is good.	
Subjective norms (SN)	SN1	Most people who are important to me think I should participate in sustainable travels.	(Ibnou-Laaroussi et al., 2020).
	SN2	My family think I should participate in sustainable travels.	
	SN3	People whose opinions I value would prefer that I participate in sustainable travels.	
Perceived behavioral control (PBC)	PBC1	It is up to me whether or not to visit a sustainable tourist destination instead of a conventional destination.	(Chuang et al., 2018)
	PBC2	I am confident that if I want, I can visit a sustainable tourist destination in the future.	
	PBC3	I possess the necessary resources, time, and opportunities to embark on a sustainable tourism journey in the future.	
Sustainable destination image (SDI)	SDI1	I think that sustainable tourism destinations behave in a socially responsible manner.	(Ashraf et al., 2020b)
	SDI2	I think that sustainable tourism destinations are responsible regarding environmental issues.	
	SDI3	I think that sustainable destinations prioritize not only their profits but also environmental sustainability and the well-being of tourists and host communities.	
Environmental awareness (EA)	EA1	I am informed about environmental issues.	(Ashraf et al., 2020b)
	EA2	I am aware of the actions I can take to improve the environment.	
	EA3	I get frustrated when I think of tourist destinations that conduct their activities by polluting the environment.	
	EA4	If the services provided by a destination seriously harm the environment, I will refuse to purchase them.	

Source: Authors' elaboration

3.2. Data analysis.

In the field of social sciences, SEM has gained considerable recognition for its role in exploring the intricate connections among LVs (Richter et al., 2016). Researchers typically employ two main approaches to estimate these relationships: covariance-based SEM and the variance-based method (Wold, 1975; Jöreskog 1978), also known as the Partial Least Squares Path Model (PLS-PM). We decided to adopt PLS-SEM through Smart-PLS (Hair et al., 2011) due to its adaptability to diverse assumptions concerning the distribution of variables and error terms (Wold, 1975). The structural model defines the connections among LVs, while the measurement model outlines the linkages between an LV and its observed variables (MVs). The analysis and interpretation of PLS-SEM involve two key phases: examining the measurement model and assessing the structural model (Hair et al., 2019).

4. Results

4.1. Descriptive statistical results

Some descriptive statistics of the sample are reported in Table 2. The examination of the sample reveals intriguing insights into its composition. Regarding gender distribution, there is a slight majority of males (53%). In terms of age, around 40% of respondents are between the ages of 31–40, 36% are between the ages of 20–30, 15% between the ages of 41–50, 7% are 50 years old or older, and 2% are 20 years old or younger. Income distribution of respondents (expressed in Euro - €) is: 44% have an income less than 50.000 euros, 31% between 50.001 and 100.000 euros, 22% between 100.001 and 150.000 euros, 2% between 150.001 and 200.000% and 1% have an income than 200.001.

4.2. Evaluation of the measurement model.

The model's overall suitability was assessed using a combination of indices, as suggested by Hair et al. (2019), concerning the measurement model's reliability, convergent validity, and discriminant validity.

Table 2. Characteristics of the sample.

Characteristics	Type	Percentage (%)	N.
Gender	Female	43%	216
	Male	53%	267
	Not declared	4%	20
Age	<20	2%	10
	20-30	36%	181
	31-40	40%	201
	41-50	15%	76
	>50	7%	35
Annual gross income (€)	< 50.000 €	44%	221
	50.001 - 100.000 €	31%	156
	100.001 - 150.000 €	22%	111
	150.001 - 200.000 €	2%	10
	>200.001	1%	5
Education	Secondary education	1%	5
	Higher education	37%	186
	Bachelor's degree	33%	166
	Master's degree	22%	111
	PhD	7%	35

Source: Authors' elaboration

4.2.1. Reliability.

To assess reliability, it was verified that the composite reliability (CR) index (Dillon-Goldstein's rho) for each construct exceeded the threshold of 0.7 (Dillon & Goldstein, 1984; Hair et al., 2011). Dillon-Goldstein's rho is considered a more adequate reliability measure for SEM than Cronbach's

alpha (Sanchez, 2013; Mikolajczak et al., 2014). Indeed, as Chin (2009) claimed, this is because Dillon-Goldstein's rho is based on the loadings rather than the correlations measured between the observed variables. As reported in Table 3, CR values were greater than the minimum threshold, ranging from 0.759 to 0.917.

4.2.2. Convergent validity.

To evaluate the convergent validity, the study used normalized weighting (outer loading) and average variance extraction (AVE). As claimed by Henseler et al. (2015), the normalized weighting should be >0.6, while AVE, that quantifies the extent to which a construct accounts for variance in comparison to variance attributed to measurement error, should be >0.5 (Fornell & Larcker, 1981; Hair et al., 2019; Palma et al., 2021). The results showed in Table 3 highlight that outer loadings of each indicator of the variables were higher than 0.7. Moreover, for each indicator of the variables, AVE is higher than 0.5. Therefore, convergent validity has been verified.

Table 3. Outer loading, composite reliability and convergent validity.

Construct	Outer loading	Cronbach's alpha	Dillon-Goldstein's rho	Average variance extracted (AVE)
ATT1	0,781	0,739	0,840	0,637
ATT2	0,760			
ATT3	0,851			
EA1	0,763	0,848	0,898	0,688
EA2	0,856			
EA3	0,849			
EA4	0,847			
PBC1	0,892	0,824	0,895	0,739
PBC2	0,847			
PBC3	0,840			
SDI1	0,618	0,597	0,759	0,515

SDI2	0,814			
SDI3	0,708			
SIN1	0,824	0,779	0,871	0,692
SIN2	0,848			
SIN3	0,823			
SN1	0,863	0,864	0,917	0,786
SN2	0,901			
SN3	0,895			

Source: Authors' elaboration

4.2.3. Discriminant validity.

The discriminant validity was evaluated applying both the Fornell-Larcker criterion (Fornell & Larcker, 1981) and the Heterotrait-Monotrait (HTMT) ratio of correlations method (Henseler et al., 2015). As regard to the application of the Fornell-Larcker criterion, the discriminant validity was established by comparing the square root of each AVE value along the diagonal and the correlation coefficients (off-diagonal) for each construct within the respective rows and columns (Palma et al., 2021). As reported in Table 4, the square root of AVE for each construct is higher than its highest correlation with the other constructs. Therefore, the Fornell-Larcker criterion was satisfied. In addition, discriminant validity has been assessed by inspecting the HTMT ratios. As Henseler et al. (2015) suggested, applying this criterion involves comparing it to a pre-defined threshold. The values considered optimal range from 0.85 (Kline, 2023) to 0.90 (Gold et al., 2001; Teo et al., 2008). In this study, all the values lie below the threshold (see Table 5). Various items were tested to identify those with high loadings within the same structure and across multiple structures. The results, reported in Table 6, revealed very low cross-loadings for each structure, indicating strong discriminant validity.

4.3. Evaluation of the structural model

4.3.1 Multicollinearity.

Multicollinearity is measured to examine the potential correlation between the factors in the model. The inner variance inflation factor (VIF) coefficient can be employed to assess this issue. Diamantopoulos and Siguaw (2006) and Hair et al. (2019) state that an inner VIF coefficient below 3.3 is considered acceptable to mitigate multicollinearity. Table 7 points out that there is

no evidence of multicollinearity in the research model.

Table 4. Fornell-Larcker criterion.

	Attitude	Environmental awareness	Perceived behavioral control	Sustainable destination image	Sustainable tourism intention	Subjective norms
Attitude	**0,798**					
Environmental awareness	0,528	**0,830**				
Perceived behavioral control	0,624	0,386	**0,860**			
Sustainable destination image	0,567	0,613	0,444	**0,718**		
Sustainable tourism intention	0,523	0,437	0,563	0,533	**0,832**	
Subjective norms	0,398	0,309	0,583	0,440	0,621	**0,887**

Source: Authors' elaboration

Table 5. Heterotrait-Monotrait ratio (HTMT) matrix.

	Attitude	Environmental awareness	Perceived behavioral control	Sustainable destination image	Sustainable tourism intention	Subjective norms
Attitude						
Environmental awareness	0,681					
Perceived behavioral control	0,728	0,460				
Sustainable destination image	0,892	0,883	0,580			
Sustainable tourism intention	0,622	0,533	0,693	0,691		
Subjective norms	0,433	0,358	0,694	0,550	0,741	

Source: Authors' elaboration

4.3.2 *R-square coefficient.*

The R-square coefficient helps in assessing how effectively the model explains the variation in a specific variable (Hair et al., 2014). The results confirm the model's ability to explain 51.9% of respondents' intention to sustain tourism. This level of explanation suggests that the factors incorporated into the model are appropriate for elucidating sustainable tourism intention.

Table 6. Cross loadings.

	Attitude	Environmental awareness	Perceived behavioral control	Sustainable destination image	Sustainable tourism intention	Subjective norms
ATT1	**0,781**	0,467	0,410	0,471	0,303	0,165
ATT2	**0,760**	0,452	0,297	0,484	0,300	0,204
ATT3	**0,851**	0,392	0,670	0,439	0,555	0,472
EA1	0,416	**0,763**	0,335	0,482	0,395	0,307
EA2	0,463	**0,856**	0,296	0,542	0,357	0,237
EA3	0,424	**0,849**	0,330	0,503	0,361	0,212
EA4	0,445	**0,847**	0,315	0,504	0,328	0,262
PBC1	0,549	0,377	**0,892**	0,401	0,517	0,550
PBC2	0,445	0,243	**0,847**	0,355	0,477	0,538
PBC3	0,620	0,376	**0,840**	0,389	0,457	0,409
SDI1	0,475	0,526	0,208	**0,618**	0,214	0,193
SDI2	0,368	0,338	0,413	**0,814**	0,521	0,428
SDI3	0,473	0,603	0,272	**0,708**	0,310	0,248
SIN1	0,477	0,368	0,529	0,462	**0,824**	0,620
SIN2	0,436	0,362	0,458	0,428	**0,848**	0,444
SIN3	0,381	0,359	0,403	0,435	**0,823**	0,460
SN1	0,359	0,270	0,592	0,391	0,510	**0,863**

SN2	0,354	0,273	0,531	0,389	0,539	**0,901**
SN3	0,348	0,279	0,441	0,390	0,597	**0,895**

Source: Authors' elaboration

Table 7. VIF coefficients

	ATT	EA	PBC	SDI	SIN	SN
ATT					**2,093**	
EA					**1,738**	
PBC					**2,096**	
SDI					**1,974**	
SIN					-	
SN					**1,620**	

Source: Authors' elaboration

4.4. Testing the research hypotheses

Table 8 highlights that all the relationships hypothesized are confirmed.

Table 8. Final results.

HP	Relations	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics	P values	Support
H1	ATT -> SIN	0,138	0,139	0,053	2,613	0,009	**YES**
H2	SN -> SIN	0,378	0,378	0,048	7,855	0,000	**YES**
H3	PBC -> SIN	0,148	0,147	0,056	2,642	0,008	**YES**
H4	SDI -> SIN	0,170	0,171	0,052	3,274	0,001	**YES**
H5	EA -> SIN	0,086	0,086	0,043	2,010	0,044	**YES**

Source: Authors' elaboration

5. Discussion

This study explores the factors influencing sustainable tourism intentions. Our model extends the TPB (Ajzen, 1991), which considers ATT, SN, and PBC as central factors. Additionally, we introduce SDI and EA. H1 suggests that positive attitudes towards a destination are likely to influence an individual's intention to visit that location. Therefore, a positive attitude towards tourism destinations is expected to enhance the intention to travel, as individuals are more inclined to undertake activities that align with their positive evaluations and perceptions (Chernev & Blair, 2015). Additionally, studies in tourism psychology have repeatedly demonstrated the impact of attitude on travel decision-making. Gardiner et al. (2013), provided further rationale for exploring and validating the proposed hypothesis (H1). H2 supports a significant and positive association between SN and SIN. TPB emphasizes the role of SN in shaping behavioral intentions, asserting that perceived social expectations contribute to the likelihood of engaging in a particular behavior (Ajzen, 1991).

Consequently, positive and supportive SN regarding travel to tourism destinations is expected to enhance the intention to visit such locations. A positive attitude towards a destination and a positive association between SN and the intention to travel (H1, H2) are interconnected elements within this theoretical construct. TPB posits that individuals tend to align their activities with positive attitudes, and the presence of supportive SN contributes to the enhancement of behavioral intentions. Therefore, the interplay between these two factors suggests a synergistic relationship in shaping tourists' intentions to engage in sustainable tourism practices. The H3 posits the influence of PBC on SIN. A higher perceived level of control over the decision-making process and execution of travel plans is expected to correlate positively with the intention to visit tourism destinations. Individuals who feel more capable and in control are likely to express a stronger intent to engage in travel behaviors. The literature on travel behaviors and decision-making suggests that factors such as perceived convenience, accessibility, and the ease of planning can significantly impact behavioral intentions (Chen & Gursoy, 2001). Therefore, exploring and substantiating the proposed hypothesis would contribute valuable insights into the nuanced interplay between PBC and the SIN. The H4 supports the influence of SDI on SIN. A positive destination image, favorable evaluations and perceived social expectations collectively contribute to the formation of behavioral intentions. A destination image encompasses individuals' perceptions and beliefs about a particular travel destination (Hosany et al., 2007). In the context of sustainability, a destination with a positive sustainable image is likely to be perceived as environmentally responsible, socially conscious, and committed to ethical practices (Chiu et al., 2014; Abdullah et al., 2019).

Tourists increasingly value sustainability in their travel choices, seeking destinations that align with their own environmental and social values (Li et al., 2020). A positive SDI is expected to influence tourists' intentions and behaviors towards adopting sustainable tourism practices during their visit. This alignment can be attributed to the desire of tourists to contribute to environmentally friendly and socially responsible initiatives, as well as their preference for destinations that prioritize sustainable development (Dolnicar et al., 2008; Grilli et al., 2021). This alignment can be attributed to the desire of tourists to contribute to environmentally friendly and socially responsible initiatives, as well as their preference for destinations that prioritize sustainable development (Karmoker & Ahmed, 2022; Linnes et al., 2022; Wang, 2022).

Empirical evidence suggests that tourists are more inclined to support destinations that actively promote and implement sustainable tourism initiatives (Karmoker & Ahmed, 2022; Wang, 2022;

Linnes et al., 2022). Therefore, the validation of this hypothesis provides valuable insights into the relationship between SDI and tourists' engagement in sustainable tourism practices. Individuals who perceive a higher level of control may actively seek destinations aligned with their values (Wolf et al., 2017), such as those promoting sustainability. Furthermore, as hypothesized (H4) in this study, the sustainable image of a destination also influences SIN. Finally, H5 proposes a positive association between EA and SIN. Environmental awareness is expected to positively influence tourists' intentions to engage in sustainable tourism practices. This association can be attributed to the recognition that responsible and green behaviors during travel contribute to the preservation of natural resources, ecosystems, and cultural heritage (Dolnicar et al., 2008; Doran & Larsen, 2016). Empirical studies have demonstrated that tourists with greater EA are willing to favor eco-friendly accommodations, support local communities' development and conservation initiatives and respect wildlife and natural landscape (Mkono & Hughes, 2020; Ren et al., 2021).

6. Conclusion, implications and limits

The discussion presented above underscores the intricate relationship between sustainable tourism and tourist behaviors. From a theoretical point of view, this paper provides a novel extended version of the Theory of Planned Behavior extending two variables to measure the predictability of the model. All the relationships hypothesized are statistically confirmed and SDI and EA are positively correlated with tourists' intentions to choose sustainable tourism. The study's practical implications advocate for a top-bottom approach, emphasizing the collaboration between governments and industries to promote sustainable tourism practices, recognizing the pivotal role of SDI in influencing tourist behaviors. Policymakers can play a crucial role in setting regulations and incentives that encourage businesses to adopt environmentally friendly practices. The findings highlight the significance of a SDI and dissemination of environmental information in influencing tourists' intentions which may lead to environmentally friendly behavior (Kim & Han 2010; Masud et al., 2016; Abdullah et al., 2019).

It is a high time that destination managers should prioritize efforts to showcase their commitment to sustainability, as a positive image can attract environmentally conscious tourists. All the actors involved in the tourism industry could consider incorporating educational initiatives and awareness campaigns to enhance tourists' understanding of the environmental impact of their choices. Efforts should extend beyond carbon footprint reduction to include waste management, conservation initiatives, and community engagement. As the field of sustainable tourism continues to evolve, future research should explore emerging factors and trends. Indeed, future research could employ different methodologies and theoretical frameworks to provide a more comprehensive understanding of the relationship between variables.

Future studies should aim for more geographically diverse and representative samples to enhance the generalization of the findings. Additionally, the influence of evolving technologies, changing travel patterns, and the impact of global events on sustainable tourism behaviors represent fruitful avenues for investigation avenues for future research. Considering the relevance of "Intention–Behaviour Gap" (i.e., Sheeran & Webb, 2016), future research should be addressed at investigating whether SIN translate into behavior, through a pre and post travel analysis. Considering the influence of demographic variables on the extended model, it could be interesting for future studies to explore their impact in shaping SIN. In conclusion, while this study makes a valuable contribution to the debate on

sustainable tourism, it calls for exploration and further understanding toward a more sustainable and resilient tourism industry.

Conflict of interest

All authors declare no conflicts of interest in this paper.

References

Abdelwahed, N. A. A., Soomro, B. A., & Shah, N. (2022). Climate change and pro-environmental behaviours: the significant environmental challenges of livelihoods. *Management of Environmental Quality: An International Journal*, *33*(5), 1187-1206. DOI: https://doi.org/10.1108/MEQ-10-2021-0236

Abdullah, M. N. A. (2021). Revenge tourism: Trend or impact post-pandemic Covid-19?. In *Promoting creative tourism: Current issues in tourism research* (pp. 623-627). Routledge. DOI: https://doi.org/10.1201/9781003095484-89

Abdullah, S., Samdin, Z., Teng, P., & Heng, B. (2019). The impact of knowledge, attitude, consumption values and destination image on tourists' responsible environmental behaviour intention. *Management Science Letters*, *9*(9), 1461-1476. DOI: https://doi.org/10.5267/j.msl.2019.5.005

Ajzen, I. (1980). Understanding attitudes and predicting social behavior. *Englewood cliffs*.

Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In Action control: From cognition to behavior (pp. 11-39). Berlin, Heidelberg: Springer Berlin Heidelberg. DOI: https://doi.org/10.1007/978-3-642-69746-3_2

Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, *50*(2), 179-211. DOI: https://doi.org/10.1016/0749-5978(91)90020-T

Ajzen, I., & Madden, T. J. (1986). Prediction of goal-directed behavior: Attitudes, intentions, and perceived behavioral control. *Journal of experimental social psychology*, *22*(5), 453-474. DOI: https://doi.org/10.1016/0022-1031(86)90045-4

Ashraf, M.S., Akhtar, N., Ashraf, R.U., Hou, F., Junaid, M., & Kirmani, S.A.A. (2020a). Traveling responsibly to ecofriendly destinations: an individual-level cross-cultural comparison between the United Kingdom and China. *Sustainability*, *12*(8), 3248. DOI: https://doi.org/10.3390/su12083248

Ashraf, M.S., Hou, F., Kim, W.G., Ahmad, W., & Ashraf, R.U. (2020b). Modeling tourists' visiting intentions toward ecofriendly destinations: Implications for sustainable tourism operators. *Business Strategy and the Environment*, 29(1), 54-71. DOI: https://doi.org/10.1002/bse.2350

Bandura, A. (1986). Social foundations of thought and action. *Englewood Cliffs, NJ*, *1986*(23-28).

Bigne, J. E., Sanchez, M. I., & Sanchez, J. (2001). Tourism image, evaluation variables and after purchase behaviour: inter-relationship. *Tourism management*, *22*(6), 607-616. DOI: https://doi.org/10.1016/S0261-5177(01)00035-8

Boto-García, D., & Baños-Pino, J. F. (2022). Social influence and bandwagon effects in tourism travel. *Annals of tourism research*, *93*, 103366. DOI: https://doi.org/10.1016/j.annals.2022.103366

Buckley, R., & Westaway, D. (2020). Mental health rescue effects of women's outdoor tourism: A role in COVID-19 recovery. *Annals of tourism research*, *85*, 103041. DOI: https://doi.org/10.1016/j.annals.2020.103041

Chen, J. S., & Gursoy, D. (2001). An investigation of tourists' destination loyalty and preferences. *International Journal of Contemporary Hospitality Management*, *13*(2), 79-85. https://doi.org/10.1108/09596110110381870

Chen, M.-F., & Tung, P.-J. (2014). Developing an extended theory of planned behavior model to predict consumers' intention to visit green hotels. *International journal of hospitality management*, *36*, 221-230. DOI: https://doi.org/10.1016/j.ijhm.2013.09.006

Cheng, S., Lam, T., & Hsu, C. H. (2006). Negative word-of-mouth communication intention: An application of the theory of planned behavior. *Journal of Hospitality & Tourism Research*, *30*(1), 95-116. DOI: https://doi.org/10.1177/1096348005284269

Cheng, T.-M., & Wu, H. C. (2015). How do environmental knowledge, environmental sensitivity, and place attachment affect environmentally responsible behavior? An integrated approach for sustainable island tourism. *Journal of Sustainable Tourism*, *23*(4), 557-576. DOI: https://doi.org/10.1080/09669582.2014.965177

Chernev, A., & Blair, S. (2015). Doing well by doing good: The benevolent halo of corporate social responsibility. *Journal of Consumer Research*, *41*(6), 1412-1425. DOI: https://doi.org/10.1086/680089

Cheung, K. S., & Li, L.-H. (2019). Understanding visitor–resident relations in overtourism: Developing resilience for sustainable tourism. *Journal of Sustainable Tourism*, *27*(8), 1197-1216. DOI: https://doi.org/10.1080/09669582.2019.1606815

Chien, G. C., Yen, I.-Y., & Hoang, P.-Q. (2012). Combination of theory of planned behavior and motivation: An exploratory study of potential beach-based resorts in Vietnam. *Asia pacific journal*

of tourism Research, *17*(5), 489-508. DOI: https://doi.org/10.1080/10941665.2011.627352

Chiu, Y.-T. H., Lee, W.-I., & Chen, T.-H. (2014). Environmentally responsible behavior in ecotourism: Exploring the role of destination image and value perception. *Asia pacific journal of tourism Research*, *19*(8), 876-889. DOI: https://doi.org/10.1080/10941665.2013.818048

Chuang, L.-M., Chen, P.-C., & Chen, Y.-Y. (2018). The determinant factors of travelers' choices for pro-environment behavioral intention-integration theory of planned behavior, unified theory of acceptance, and use of technology 2 and sustainability values. *Sustainability*, *10*(6), 1869. DOI: https://doi.org/10.3390/su10061869

Cohen, J. (1988). Set correlation and contingency tables. *Applied psychological measurement*, *12*(4), 425-434. DOI: https://doi.org/10.1177/014662168801200041

Crompton, J. L., Fakeye, P. C., & Lue, C.-C. (1992). Positioning: The example of the Lower Rio Grande Valley in the winter long stay destination market. *Journal of Travel Research*, *31*(2), 20-26. DOI: https://doi.org/10.1177/004728759203100204

Dang, Q. (2022). Research on the impact of media credibility on risk perception of COVID-19 and the sustainable travel intention of Chinese residents based on an extended TPB model in the post-pandemic context. *Sustainability*, *14*(14), 8729. DOI: https://doi.org/10.3390/su14148729

Della Corte, V., Del Gaudio, G., Sepe, F., & Luongo, S. (2021). Destination resilience and innovation for advanced sustainable tourism management: A bibliometric analysis. *Sustainability*, 13(22), 12632. DOI: https://doi.org/10.3390/su132212632

Diamantopoulos, A., & Siguaw, J. A. (2006). Formative versus reflective indicators in organizational measure development: A comparison and empirical illustration. *British journal of management*, *17*(4), 263-282. DOI: https://doi.org/10.1111/j.1467-8551.2006.00500.x

Dillon, W. R., & Goldstein, M. (1984). *Multivariate analysis: Methods and applications*. New York (NY): Wiley, 1984.

Dolnicar, S., Crouch, G. I., & Long, P. (2008). Environment-friendly tourists: what do we really know about them? *Journal of Sustainable Tourism*, *16*(2), 197-210. DOI: https://doi.org/10.2167/jost738.0

Doran, R., & Larsen, S. (2016). The relative importance of social and personal norms in explaining intentions to choose eco-friendly travel options. *International Journal of Tourism Research*, *18*(2), 159-166. DOI: https://doi.org/10.1002/jtr.2042

Dwyer, L. (2022). Tourism contribution to the SDGs: Applying a well-being lens. *European Journal of Tourism Research*, *32*, 3212-3212. DOI: https://doi.org/10.54055/ejtr.v32i.2500

Ekpoh, U. I., & Ekpoh, I. J. (2011). Assessing the level of climate change awareness among secondary school teachers in Calabar Municipality, Nigeria: Implication for management effectiveness. *International Journal of Humanities and Social Science*, *1*(3), 106-110. DOI: https://doi.org/10.30845/ijhss

Elgaaied, L., Bernard, Y., & Bertrandias, L. (2013). L'endossement de responsabilité, une clé de l'efficacité des étiquettes environnementales. *Actes du*, *29*.

Entina, T., Karabulatova, I., Kormishova, A., Ekaterinovskaya, M., & Troyanskaya, M. (2021). Tourism industry management in the global transformation: Meeting the needs of generation Z. *Polish Journal of Management Studies*, *23*. DOI: https://doi.org/10.17512/pjms.2021.23.2.08

Fall Diallo, M., Diop-Sall, F., Leroux, E., & Valette-Florence, P. (2015). Comportement responsable des touristes: Le rôle de l'engagement social. *Recherche et Applications en Marketing (French Edition)*, *30*(3), 88-108. DOI: https://doi.org/10.1177/0767370115571048

Fenitra, R. M., Tanti, H., Gancar, C. P., & Indrianawati, U. (2021). Understanding younger tourist'intention toward environmentally responsible behavior. *Geo Journal of Tourism and Geosites*, *36*, 646-653. DOI: https://doi.org/10.30892/gtg.362spl12-694

Ferraro, P. J., & Hanauer, M. M. (2015). Through what mechanisms do protected areas affect environmental and social outcomes?. *Philosophical Transactions of the Royal Society B: Biological Sciences*, *370*(1681), 20140267. DOI: https://doi.org/10.1098/rstb.2014.0267

Fermani, A., Sergi, M. R., Carrieri, A., Crespi, I., Picconi, L., & Saggino, A. (2020). Sustainable tourism and facilities preferences: The sustainable tourist stay scale (STSS) validation. *Sustainability*, *12*(22), 9767. DOI: https://doi.org/10.3390/su12229767

Fiorello, A. (2011). *Le comportement de tri des déchets ménagers: une approche marketing* Université Nice Sophia Antipolis].

Fishbein, M., Ajzen, I., Albarracin, D., & Hornik, R. (2007). A reasoned action approach: Some issues, questions, and clarifications. *Prediction and change of health behavior: Applying the reasoned action approach*, 281-295. DOI: https://doi.org/10.4324/9780203937082

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing research*, *18*(1), 39-50. DOI: https://doi.org/10.2307/3151312

François-Lecompte, A., & Prim-Allaz 1, I. (2009). Les Français et le tourisme durable: proposition d'une typologie. *Revue management et avenir*(9), 308-326.

François-Lecompte, A., & Prim-Allaz, I. (2011). LES FRANÇAIS ET LE TOURISME DURABLE Étude des représentations. *Décisions marketing*(64). DOI: https://doi.org/10.7193/DM.064.47.58

Gardiner, S., King, C., & Grace, D. (2013). Travel decision making: An empirical examination of generational values, attitudes, and intentions. *Journal of Travel Research*, *52*(3), 310-324. DOI: https://doi.org/10.1177/0047287512467699

Gitelson, R., & Kerstetter, D. (1995). The influence of friends and relatives in travel decision-making. *Journal of Travel & Tourism Marketing*, *3*(3), 59-68. DOI: https://doi.org/10.1300/J073v03n03_04

Green, S. B. (1991). How many subjects does it take to do a regression analysis. *Multivariate behavioral research*, *26*(3), 499-510. DOI: https://doi.org/10.1207/s15327906mbr2603_7

Grilli, G., Tyllianakis, E., Luisetti, T., Ferrini, S., & Turner, R. K. (2021). Prospective tourist preferences for sustainable tourism development in Small Island Developing States. *Tourism management*, *82*, 104178. DOI: http://dx.doi.org/10.1016/j.tourman.2020.104178

Han, L., Goetz, S. J., Eades, D., Entsminger, J., & Arbogast, D. (2023). An early assessment of COVID-19's impact on tourism in US countries. *Tourism Economics*, *29*(5), 1355-1375. DOI: https://doi.org/10.1177/13548166221107814

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing theory and Practice*, *19*(2), 139-152. DOI: https://doi.org/10.2753/MTP1069-6679190202

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European business review*, *31*(1), 2-24. DOI: https://doi.org/10.1108/EBR-11-2018-0203

Hall, C. M. (2016). Heritage, heritage tourism and climate change. *Journal of Heritage Tourism*, *11*(1), 1-9. DOI: https://doi.org/10.1080/1743873X.2015.1082576.

Han, H. (2015). Travelers' pro-environmental behavior in a green lodging context: Converging value-belief-norm theory and the theory of planned behavior. *Tourism management*, *47*, 164-177. DOI: https://doi.org/10.1016/j.tourman.2014.09.014

Han, H., Hsu, L.-T. J., & Sheu, C. (2010). Application of the theory of planned behavior to green hotel choice: Testing the effect of environmental friendly activities. *Tourism management*, *31*(3), 325-334. DOI: https://doi.org/10.1016/j.tourman.2009.03.013

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the academy of marketing science*, 43, 115-135. DOI: https://doi.org/10.1007/s11747-014-0403-8

Hosany, S., Ekinci, Y., & Uysal, M. (2007). Destination image and destination personality. *International Journal of Culture, Tourism and Hospitality Research*, *1*(1), 62-81. DOI:

https://doi.org/10.1108/17506180710729619

Huang, H.-C., Lin, T.-H., Lai, M.-C., & Lin, T.-L. (2014). Environmental consciousness and green customer behavior: An examination of motivation crowding effect. *International journal of hospitality management*, *40*, 139-149. DOI: https://doi.org/10.1016/j.ijhm.2014.04.006

Hung, K., & Petrick, J. F. (2012). Testing the effects of congruity, travel constraints, and self-efficacy on travel intentions: An alternative decision-making model. *Tourism management*, *33*(4), 855-867. DOI: https://doi.org/10.1016/j.tourman.2011.09.007

Lanier, P. (2014). The positive impacts of ecotourism in protected areas. *WIT Transactions on Ecology and the Environment*, *187*.

Ibnou-Laaroussi, S., Rjoub, H., & Wong, W.-K. (2020). Sustainability of green tourism among international tourists and its influence on the achievement of green environment: Evidence from North Cyprus. *Sustainability*, *12*(14), 5698. DOI: https://doi.org/10.3390/su12145698

Jöreskog, K. G. (1978). Structural analysis of covariance and correlation matrices. *Psychometrika*, *43*(4), 443-477. DOI: https://doi.org/10.1007/BF02293808

Juschten, M., Jiricka-Pürrer, A., Unbehaun, W., & Hössinger, R. (2019). The mountains are calling! An extended TPB model for understanding metropolitan residents' intentions to visit nearby alpine destinations in summer. *Tourism management*, *75*, 293-306. DOI: https://doi.org/10.1016/j.tourman.2019.05.014

Juvan, E., & Dolnicar, S. (2014). The attitude–behaviour gap in sustainable tourism. *Annals of tourism research*, *48*, 76-95. DOI: https://doi.org/10.1016/j.annals.2014.05.012

Karmoker, K., & Ahmed, F. (2022). Promoting green behavioral intentions of the tourists for the growth of sustainable tourism development in the Sundarbans of Bangladesh. *International Journal of Business and Management*, *17*(1). DOI: https://doi.org/10.5539/ijbm.v17n1p52

Khan, F., Ahmed, W., & Najmi, A. (2019). Understanding consumers' behavior intentions towards dealing with the plastic waste: Perspective of a developing country. *Resources, Conservation and Recycling*, *142*, 49-58. DOI: https://doi.org/10.1016/j.resconrec.2018.11.020

Kim, H., & Richardson, S. L. (2003). Motion picture impacts on destination images. *Annals of tourism research*, *30*(1), 216-237. DOI: https://doi.org/10.1016/S0160-7383(02)00062-2

Kim, M. J., & Hall, C. M. (2019). Can climate change awareness predict pro-environmental practices in restaurants? Comparing high and low dining expenditure. *Sustainability*, *11*(23), 6777. DOI: https://doi.org/10.3390/su11236777

Kim, Y., & Han, H. (2010). Intention to pay conventional-hotel prices at a green hotel–a modification

of the theory of planned behavior. *Journal of Sustainable Tourism*, *18*(8), 997-1014. DOI: https://doi.org/10.1080/09669582.2010.490300

Kline, R. B. (2023). Principles and practice of structural equation modeling. Guilford publications.

Law, M. M. S., Hills, P., & Hau, B. C. H. (2017). Engaging employees in sustainable development–a case study of environmental education and awareness training in Hong Kong. *Business Strategy and the Environment*, *26*(1), 84-97. DOI: https://doi.org/10.1002/bse.1903

Lee, S. W., & Xue, K. (2020). A model of destination loyalty: Integrating destination image and sustainable tourism. *Asia Pacific Journal of Tourism Research*, 25(4), 393–408. DOI: https://doi.org/10.1080/10941665.2020.1713185

Li, S., Wei, M., Qu, H., & Qiu, S. (2020). How does self-image congruity affect tourists' environmentally responsible behavior? *Journal of Sustainable Tourism*, *28*(12), 2156-2174. DOI: https://doi.org/10.1080/09669582.2020.1800717

Linnes, C., Agrusa, J., Ronzoni, G., & Lema, J. (2022). What tourists want, a sustainable paradise. *Tourism and Hospitality*, *3*(1), 164-183. DOI: https://doi.org/10.3390/tourhosp3010013

Manosuthi, N., Lee, J.-S., & Han, H. (2020). Predicting the revisit intention of volunteer tourists using the merged model between the theory of planned behavior and norm activation model. *Journal of Travel & Tourism Marketing*, *37*(4), 510-532. DOI: https://doi.org/10.1080/10548408.2020.1784364

Masud, M. M., Al-Amin, A. Q., Junsheng, H., Ahmed, F., Yahaya, S. R., Akhtar, R., & Banna, H. (2016). Climate change issue and theory of planned behaviour: Relationship by empirical evidence. *Journal of Cleaner Production*, *113*, 613-623. DOI: https://doi.org/10.1016/j.jclepro.2015.11.080

Mihalic, T. (2000). Environmental management of a tourist destination: A factor of tourism competitiveness. *Tourism Management*, 21(1), 65–78. DOI: https://doi.org/10.1016/S0261-5177(99)00096-5

Mihalic, T. (2016). Sustainable-responsible tourism discourse–Towards 'responsustable' tourism. *Journal of cleaner production*, 111, 461-470. DOI: https://doi.org/10.1016/j.jclepro.2014.12.062

Mikolajczak, M., Brasseur, S., & Fantini-Hauwel, C. (2014). Measuring intrapersonal and interpersonal EQ: The short profile of emotional competence (S-PEC). Personality and individual differences, 65, 42-46. DOI: https://doi.org/10.1016/j.paid.2014.01.023

Miller, D., Merrilees, B., & Coghlan, A. (2015). Sustainable urban tourism: Understanding and developing visitor pro-environmental behaviours. *Journal of Sustainable Tourism*, *23*(1), 26-46. DOI: https://doi.org/10.1016/j.paid.2014.01.023

Mkono, M., & Hughes, K. (2020). Eco-guilt and eco-shame in tourism consumption contexts: Understanding the triggers and responses. *Journal of Sustainable Tourism*, *28*(8), 1223-1244. DOI: https://doi.org/10.1080/09669582.2020.1730388

Mohaidin, Z., Wei, K. T., & Murshid, M. A. (2017). Factors influencing the tourists' intention to select sustainable tourism destination: a case study of Penang, Malaysia. *International Journal of Tourism Cities*, *3*(4), 442-465. DOI: https://doi.org/10.1108/IJTC-11-2016-0049

Morande, S., Arshi, T., Gul, K., Amini, M., & Tewari, V. (2023). Tracing the Future: Blockchain and IoT's Role in Revolutionizing Food Supply Chain Transparency. In *Impactful Technologies Transforming the Food Industry* (pp. 156-174). IGI Global. DOI: https://doi.org/10.32388/7OVVW2

Marques Santos, A., Madrid, C., Haegeman, K., & Rainoldi, A. (2020). Behavioural changes in tourism in times of Covid-19. *JRC121262*, *22*(3), 121-147.

Nguyen, V. H., Nguyen, T. H., Mai, L. H., Nguyen, T. T. P., Lan Nguyen, T. M., & Nguyen, T. P. L. (2023). The factors affecting Vietnamese people's sustainable tourism intention: an empirical study with extended the theory of planned behavior (TPB). *foresight*.

Nowacki, M., Chawla, Y., & Kowalczyk-Anioł, J. (2021). What drives the eco-friendly tourist destination choice? The Indian perspective. *Energies*, *14*(19), 6237. DOI: https://doi.org/10.3390/en14196237

Palma, R., Crisci, A., & Mangia, G. (2021). Public service motivation-individual performance relationship: Does user orientation matter? *Socio-Economic Planning Sciences*, *73*, 100818. DOI: https://doi.org/10.1016/j.seps.2020.100818

Park, H. S. (2000). Relationships among attitudes and subjective norms: Testing the theory of reasoned action across cultures. *Communication studies*, *51*(2), 162-175. DOI: https://doi.org/10.1080/10510970009388516

Pikturnienė, I., & Bäumle, G. (2016). Predictors of recycling behaviour intentions among urban Lithuanian inhabitants. *Journal of Business Economics and Management*, *17*(5), 780-795. DOI: https://doi.org/10.3846/16111699.2014.951957

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of applied psychology*, *88*(5), 879. DOI: https://doi.org/10.1037/0021-9010.88.5.879

Rahman, I., & Reynolds, D. (2016). Predicting green hotel behavioral intentions using a theory of environmental commitment and sacrifice for the environment. *International journal of hospitality management*, *52*, 107-116. DOI: https://doi.org/10.1016/j.ijhm.2015.09.007

Ren, J., Su, K., Chang, Y., & Wen, Y. (2021). Formation of environmentally friendly tourist behaviors in ecotourism destinations in China. *Forests*, *12*(4), 424. DOI: https://doi.org/10.3390/f12040424

Richter, N. F., Cepeda-Carrión, G., Roldán Salgueiro, J. L., & Ringle, C. M. (2016). European management research using partial least squares structural equation modeling (PLS-SEM). *European Management Journal, 34 (6), 589-597.*

Ruan, W. J., Wong, I. A., & Lan, J. (2022). Uniting ecological belief and social conformity in green events. *Journal of Hospitality and Tourism Management*, *53*, 61-69. DOI: https://doi.org/10.1016/j.jhtm.2022.09.001

Safshekan, S., Ozturen, A., & Ghaedi, A. (2020). Residents' environmentally responsible behavior: An insight into sustainable destination development. *Asia pacific journal of tourism Research*, *25*(4), 409-423. DOI: https://doi.org/10.1080/10941665.2020.1737159

Salvatierra, J., & Walters, G. (2017). The impact of human-induced environmental destruction on destination image perception and travel behaviour: The case of Australia's Great Barrier Reef. *Journal of Vacation Marketing*, *23*(1), 73-84. DOI: https://doi.org/10.1177/1356766715626966

Sanchez, G. (2013). PLS path modeling with R. Berkeley: *Trowchez Editions*, 383(2013), 551.

Scott, D. J., Lemieux, C. J., & Malone, L. (2011). Climate services to support sustainable tourism and adaptation to climate change. *Climate Research*, *47*(1-2), 111-122. DOI: https://doi.org/10.3354/cr00952

Seitz, V., Mihai, O., Morshed, N., Mattias, M., & Rizkallah, E. (2014). The influence of learning on attitudinal change: a cross cultural analysis of green computing. *Management & Marketing*, *9*(2), 239.

Sheeran, P., & Webb, T. L. (2016). The intention–behavior gap. *Social and personality psychology compass*, 10(9), 503-518. DOI: https://doi.org/10.1111/spc3.12265

Singh, N., & Gupta, K. (2013). Environmental attitude and ecological behaviour of Indian consumers. *Social Responsibility Journal*, *9*(1), 4-18.

Su, L., Huang, S., & Pearce, J. (2019). Toward a model of destination resident–environment relationship: The case of Gulangyu, China. *Journal of Travel & Tourism Marketing*, 36(4), 469–483. DOI: https://doi.org/10.1080/10548408.2019.1568954

Sujood, S., Ali, R., Arwab, M., & Hamid, S. (2023). Post-pandemic intention of the tourism and hospitality (t&h) industry employees towards the use of information technology. *Tourism and hospitality management*, *29*(2), 279-295. DOI: https://doi.org/10.20867/thm.29.2.12

Sun, Y.-Y. (2016). Decomposition of tourism greenhouse gas emissions: Revealing the dynamics

between tourism economic growth, technological efficiency, and carbon emissions. *Tourism management*, *55*, 326-336. DOI: https://doi.org/10.1016/j.tourman.2016.02.014

Teo, T. S., Srivastava, S. C., & Jiang, L. I. (2008). Trust and electronic government success: An empirical study. *Journal of management information systems*, 25(3), 99-132. DOI: https://doi.org/10.2753/MIS0742-1222250303

Tonglet, M., Phillips, P. S., & Read, A. D. (2004). Using the Theory of Planned Behaviour to investigate the determinants of recycling behaviour: a case study from Brixworth, UK. *Resources, Conservation and Recycling*, *41*(3), 191-214. DOI: https://doi.org/10.1016/j.resconrec.2003.11.001

Toni, M., Renzi, M. F., & Mattia, G. (2018). Understanding the link between collaborative economy and sustainable behaviour: An empirical investigation. *Journal of Cleaner Production*, *172*, 4467-4477. DOI: https://doi.org/10.1016/j.jclepro.2017.11.110

Ulker-Demirel, E., & Ciftci, G. (2020). A systematic literature review of the theory of planned behavior in tourism, leisure and hospitality management research. *Journal of Hospitality and Tourism Management*, *43*, 209-219. DOI: https://doi.org/10.1016/j.jhtm.2020.04.003

UNSD (2022), United Nations Statistics Division, https://unstats.un.org/sdgs/report/2023/Goal-13/#:~:text=Sea%20levels%20continued%20to%20rise,per%20year%20in%202013%2D2022. [consulted on 02/12/2023].

UNWTO (2020). Impact assessment of the COVID-19 outbreak on international tourism. UGC Care Gr I List Journal, 10(6), 148-159.

UNWTO (2023). UNWTO World Tourism Barometer and Statistical Annex, September 2023, https://www.eunwto.org/doi/abs/10.18111/wtobarometereng.2023.21.1.3?journalCode=wtobaro metereng

Uwadiegwu, D. B. O., & Ofuani, R. O. (2014). Evaluation of the Impacts of tourism on the physical and socio-economic environment of Oredo local government area, Edo State, Nigeria. *Caribbean Journal of Sciences and Technology*, 2(01), 282-294.

Wang, K.-Y. (2022). Sustainable Tourism Development Based upon Visitors' Brand Trust: A Case of "100 Religious Attractions". *Sustainability*, *14*(4), 1977. DOI: https://doi.org/10.3390/su14041977

Wang, S., Wang, J., Li, J., & Yang, F. (2020). Do motivations contribute to local residents' engagement in pro-environmental behaviors? Resident-destination relationship and pro-environmental climate perspective. *Journal of Sustainable Tourism*, 28(6), 834–852. DOI: https://doi.org/10.1080/09669582.2019.1707215

Weber, F. (2019). Demand for sustainable tourism. *Corporate sustainability and responsibility in tourism: A transformative concept*, 265-281. DOI: https://doi.org/10.1007/978-3-030-15624-4_23

Weaver, D. B. (2002). The evolving concept of ecotourism and its potential impacts. *International Journal of Sustainable Development*, *5*(3), 251-264. DOI: https://doi.org/10.1504/IJSD.2002.003753

Weber, J. (1992). Scenarios in business ethics research: Review, critical assessment, and recommendations. *Business Ethics Quarterly*, 137-160. DOI: https://doi.org/10.2307/3857568

Wold, H. (1975). Path models with latent variables: The NIPALS approach. In *Quantitative sociology* (pp. 307-357). Elsevier. DOI: https://doi.org/10.1016/B978-0-12-103950-9.50017-4

Wolf, I. D., Ainsworth, G. B., & Crowley, J. (2017). Transformative travel as a sustainable market niche for protected areas: A new development, marketing and conservation model. *Journal of Sustainable Tourism*, *25*(11), 1650-1673. DOI: https://doi.org/10.1080/09669582.2017.1302454

WTTC (2023). https://wttc.org/news-article/global-travel-and-tourism-catapults-into-2023-says-wttc [consulted on 29/12/2023].

Wu, S.-T., & Chen, Y.-S. (2018). Local intentions to participate in ecotourism development in Taiwan's Atayal communities. *Journal of Tourism and Cultural Change*, *16*(1), 75-96. DOI: https://doi.org/10.1080/14766825.2016.1253705

Yarimoglu, E., & Gunay, T. (2020). The extended theory of planned behavior in Turkish customers' intentions to visit green hotels. *Business Strategy and the Environment*, *29*(3), 1097-1108. DOI: https://doi.org/10.1002/bse.2419

Zhang, N., Ren, R., Zhang, Q., & Zhang, T. (2020). Air pollution and tourism development: An interplay. *Annals of tourism research*, *85*, 103032. DOI: https://doi.org/10.1016/j.annals.2020.103032