

Working Paper 2024.2.3.12 - Vol 2, No 3

# KHÁM PHÁ ẢNH HƯỞNG CỦA QUÁ TẢI DU LỊCH ĐỐI VỚI HÀNH VI BỀN VỮNG CỦA DU KHÁCH: VAI TRÒ TRUNG GIAN CỦA SỰ HÀI LÒNG CỦA DU KHÁCH Ở CÁC VÙNG NÚI PHÍA BẮC VIỆT NAM

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# Tóm tắt

Quá tải du lịch là hiện tượng gây ra bởi du lịch, và ảnh hưởng tiêu cực đến điểm du lịch. Phần lớn các nghiên cứu trong lĩnh vực này tập trung phân tích ảnh hưởng dựa trên góc nhìn của người dân

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địa phương. Tuy nhiên, một nhóm đối tượng khác là du khách, được coi là nhân tố chính trong du lịch, thường bị bỏ qua trong các nghiên cứu về đề tài này. Trong nghiên cứu này, nhóm tác giả khám phá mối quan hệ giữa ảnh hưởng của quá tải du lịch và hành vi du lịch bền vững của du khách, với biến trung gian là sự hài lòng của du khách. Bảng khảo sát đã thu được 126 phản hồi và được đánh giá bằng mô hình cấu trúc tuyến tính để kiểm định các giả thuyết. Nghiên cứu đã phát hiện ra rằng, khi du khách nhận thức được một địa điểm đang gặp ảnh hưởng tiêu cực từ quá tải du lịch, họ có khả năng cao tham gia vào các hành vi bền vững để bảo vệ địa phương và du lịch tại đây.

**Từ khóa:** quá tải du lịch, hành vi của du khách, sự hài lòng của du khách, bền vững, du lịch bền vững.

# EXPLORING THE IMPACT OF OVERTOURISM ON TOURISTS' SUSTAINABLE BEHAVIORS: THE MEDIATING ROLE OF TOURIST SATISFACTION IN THE NORTHERN MOUNTAINOUS REGIONS OF VIETNAM

# Abstract

Overtourism is a phenomenon created by tourism that negatively affects the destination. Most research for this field focuses on analyzing the impacts based on residents' perspective. However, a subject group, which is visitors, considered as the main actor in tourism, is often neglected in such studies. Thus, the authors aim at exploring the relationship between perceived overtourism impacts and sustainable tourism behaviors of tourists, mediated by tourists' satisfaction. The questionnaire gained 126 responses in the time span of 2 weeks and were evaluated using structural equation modeling to test the hypotheses. The study discovered that when tourists sense that a location is suffering from the adverse impacts of overtourism, they are more likely to engage in sustainable behaviors to protect the area and its tourism.

Keywords: overtourism, tourists' behavior, tourist satisfaction, sustainability, sustainable tourism

# 1. Introduction

Tourism is one of the industries with the largest contribution to the economy of the world in general and Vietnam in particular. Before the COVID-19 pandemic, the growth rate of the global Tourism & Travel industry had surpassed the global economic growth rate for 9 consecutive years, according to a report by WTTC (World Travel & Tourism Council, 2022). The tourism industry in Vietnam is currently showing many positive signs and is continuously growing strongly. According to the statistics of the Vietnam National Tourism Administration (2023), the number of domestic visitors is estimated to reach 108 million, an increase of 5.8% compared to the previous year. Tourism and travel revenue is estimated to reach 37.8 trillion VND and increase by 52.5% compared to the previous year. Vietnam's tourism continues to be affirmed on the world tourism

map, its competitiveness continues to improve, and at the same time attracts a large number of tourists to Vietnam in the future.

However, this rapid growth also poses a major challenge to tourism management, causing overload. This situation is called "overtourism". Overtourism is used to describe tourist destinat or touristions where locals feel that there are too many tourists causing the quality of life in the area or the quality of the tourism experience to be negatively affected to an unacceptable level (Goodwin, H., 2017). In Vietnam, overtourism has occurred in many localities during peak tourist seasons and is often mentioned in the media. However, there have been almost no academic studies on this issue in Vietnam.

In addition, another concern in the tourism industry is sustainable tourism development. Damnjanović, I. (2021) states that tourism today is dominated by two opposing aspects: its sustainability and overtourism. This shows that overtourism is contrary to sustainable tourism development. Lagarias et al. (2023) argue that overtourism is an existential threat to the sustainable development of tourist destinations. Meanwhile, Byrd (2007) proposes four groups of stakeholders involved in developing sustainable tourism forms, namely current and future locals, and current and future tourists.

Recognizing the urgency of the topic when tourism is developing at a rapid pace but still lacks in-depth research, the research team aims to find the mechanism of impact of overtourism on sustainable tourism development, through the attitudes and behaviors of tourists. From there, propose solutions to strengthen sustainable tourism development.

The authors selected the research space as famous tourist destinations in the northern mountainous provinces of Vietnam, such as Moc Chau (Son La), Sa Pa (Lao Cai), Ha Giang, etc. The reason is that these are tourist destinations that are gradually becoming popular and attracting an increasing number of visitors each year; at the same time, these are areas with pristine nature and deep local identity. The authors believe that the aforementioned tourist destinations need to be given special attention to develop sustainable tourism, without losing the balance of the three sustainable factors: economic, environmental, and social.

The article includes three main parts: (1) Theoretical Framework and Research Methodology; (2) Research Results; (3) Discussion and Conclusions.

#### 2. Literature review

#### 2.1. Overtourism

A growing phenomenon affecting destinations around the world in recent and often referred to as "overtourism" (IPK International, 2018). First mentioned by Skift (2016) in an article, overtourism is a new term as this concern has only recently been focused on, therefore there is no unified definition (Pasquinelli & Trunfio, 2020). This phenomenon can be defined based on the number of visitors, travel time and the capacity of the destination (Peeters et al., 2018).

According to a 2017 report, McKinsey and the World Travel & Tourism Council specifically stated that the challenges associated with overtourism can include community alienation, degraded tourism experiences, overloaded infrastructure, environmental destruction or threats to culture and heritage. Overtourism is a concept contrary to responsible tourism - using tourism to create better places to live and better places to visit, which is considered a factor leading to unsustainable tourism (Szromek, AR et al., 2020).

#### 2.2. Tourists' satisfaction

In tourist research, customer satisfaction is the visitor's state of emotion following their visit. (Baker and Crompton, 2000; Sanchez et al., 2006). Customer satisfaction is one of the most explored subjects in many tourism studies since it is important in determining the success and continuation of the tourism business. (Gursoy et al., 2007). Customer satisfaction in a destination trip refers to how much tourists like the tour experience and how well it meets their demands and expectations. (Chen and Tsai, 2007).

## 2.3. Tourists' sustainable behaviors

Sustainable tourist behavior is tourists' activity that does not negatively affect the natural environment and/or may potentially improve the environment both globally and locally. (Shen S, et al, 2020). Tourist behavior is an important problem since tourists are key stakeholders in the tourism industry. The majority of the negative effects of tourism are caused by the irresponsible behavior of tourists, who do not behave in an environmentally beneficial way (Juvan, E., & Dolnicar, S., 2014). Therefore, locations should employ strategies and techniques aimed at making tourists behave in a more environmentally friendly manner.

#### 3. Theoretical framework

### 3.1. Overtourism and tourists' satisfaction

The erosion in the quality of an attraction and its offerings is blamed for the strong tourism pressure (Ganzaroli, De Noni & Van Baalen, 2017). The crowding level resulted from one of the overtourism's impacts has negative influence on tourists' overall satisfaction and their intention to revisit the destination, while simultaneously affects positively the objection to revisit and recommend the location to other tourists (Papadopoulou et al., 2023). In 2024, Yoon et al. argued that tourists' satisfaction will decrease as they evaluate overtourism at that tourism sight. Erry & Mira found that there is a relationship between people life's satisfaction and the perception of overtourism, in which the higher the perception is, the more overall satisfaction will be reduced. With the increase in the traffic of travel and tourism, the pressure on tourism assets becomes

heavier, posing a great threat on the economy, nature, recreation, and the aesthetic resources in the destination (Dodds & Holmes, 2019). The gap in satisfaction level between German and British tourists, implying the effects of overtourism in one particular destination also influence on tourists' enjoyment (Kozak, 2001).

## H1: Overtourism has a negative impact on Tourists' satisfaction

## 3.2. Tourists' satisfaction and tourists' sustainable behaviors

According to Banerjee, Vasudevan, & Kiran (2019), the greater a tourist's perceived value of a certain destination is, the more willing that tourist will be to perform extra-role behaviors for the benefit of the destination. Tourists' attitude toward the destination influences their satisfaction, perception, and environmental commitment (Sahabuddin et al., 2021). These commitments can be characterized as environmentally responsible behaviors, such actions that were taken during their stay to protect the sustainable quality of the tourism destination. He et al. (2018) argued the perceived quality of service delivered by personnel at a destination was observed to have a favorable effect on perceptions of value, environmental dedication, and the adoption of environmentally responsible behaviors among tourists. The research pointed out that both tourist satisfaction and environmental commitment act as complete mediators in the association between perceived destination value, as perceived by tourists, and the manifestation of environmentally responsible behaviors.

## H2: Tourists' satisfaction has a positive impact on tourists' sustainable behaviors

### 3.3. Overtourism and tourists' sustainable behaviors

No studies seem to have addressed the existence of a direct relationship between perceived overtourism and sustainable behaviors of tourists. However, it is reasonable to assume the linkage as Wheeller (1991) found out that "Responsible tourism has grown as a reaction to mass tourism". The evolution from mass tourism to responsible tourism reflects a growing awareness and need for sustainable practices within the tourism industry, addressing both the immediate and long-term impacts of tourism on destinations. Sustainable tourism is defined as tourism that considers its current and future economic, social, and environmental impacts, aiming to meet the needs of visitors, the industry, the environment, and host communities. The "tourism area life cycle" model (TALC, developed by Butler in 1980) serves as a warning. It highlights the contradiction inherent in mass tourism: its initial success relies on the very things it eventually destroys, pushing destinations beyond their ability to handle the environmental, social, and economic pressures. Alternative tourism, proposed in the early 1980s, emerged as a possible solution. It emphasized ethical practices that empower local communities (Dernoi 1981, Gonsalves 1987, Holden 1984). Sharing the cautionary approach of responsible tourism, it doesn't replace the original model but complements it, offering an opposing viewpoint within the larger story of tourism. Sustainable tourism relies on regulations and decision-making at various levels, while responsible tourism draws from a more individualistic approach, emphasizing personal behavior and choices. (Weaver,

2014). The authors believe that tourists who witness the negative effects of overtourism will be more likely to make sustainable behaviors in their travels.

## H3: Overtourism has a positive impact on tourists' sustainable behaviors

## 4. Methodology

This study followed a quantitative approach to test the hypotheses, which means it used the data collected from the survey to analyze, interpret and explain the interpretation about direct relationships among 3 variables: Overtourism, Tourists' satisfaction, and Tourists' sustainable behaviors. The following steps were conducted sequentially to achieve the main objectives of the research.

## 4.1. Data collection and samples

A questionnaire consisting of 3 variables mentioned above was developed for the researching purpose of this study and was distributed through the Internet to collect data. Participants who responded must have traveled at least once to one of the tourist destinations mentioned in the questionnaire to ensure the validity of the data. The survey took place from 2 weeks with the timestamp recorded and all the responses were collected through Google Form, among which are 126 invalids because the respondent either didn't answer the required question or only chose one answer for every question.

Some previous researchers argue that the sample should be at least from between 100 and 150 for the SEM to be reliable (Javed et al., 2020). Therefore, this study using 126 satisfies the criterion regarding the size of the sample.

# 4.2. Measurements

Measurements used in this study are adapted from the previous studies by Qingfeng Song & Amare Wondirad (2023) to measure Overtourism with 7 observed variables; Sumaryadi, et al (2021) to measure Tourists's satisfaction with 10 observed variables. Tourists' sustainable behaviors is measured using World Committee on Tourism Ethics (2017) brochure guidance for Global Code of Ethics for Tourism, with 11 observed variables

This study used the Likert 5-point scale to measure the variables mentioned in the questionnaire, in which 1 = "Strongly disagree", 2 = "Disagree", 3 = "Neutral", 4 = "Agree" and 5 = "Strongly agree". Each statement in the questionnaire is unidimensional to record the test score for each variable. Unidimensionality is essential for the soundness of the assessment processes the score is being used in (Ziegler & Hagemann, 2015).

### 4.3. Data analysis

The variables are coded individually: Overtourism (OVER), Tourists's satisfaction (SAT), and Tourists' sustainable behaviors (SUS) before being analyzed using the partial least squaresstructural equation modeling (PLS-SEM) method with the support of SmartPLS software. Compared to its alternative covariance-based SEM, PLS-SEM is more useful when analyzing complex theoretical models (Hair & Alamer, 2022) and provides more flexibility in terms of requirements for data and relationship specification (Sarstedt et al., 2014).

#### 5. Results

#### 5.1. Descriptive analysis

The result shows that all outer loadings of items were more than 0.4. Indicators with very low outer loadings (below 0.40) should always be eliminated from the construct (Hair et al., 2011). Moreover, indicators whose outer loadings fall within the range of 0.40 to 0.70 may be recommended for exclusion from the scale if their removal results in an enhancement of composite reliability or an increase in the average variance extracted (Hair et al., 2014).

To improve the Average Variance Extracted (AVE) of behaviors on sustainability construct, its indicators were selected and sequentially eliminated from the model if their outer loadings are from 0.4 to 0.7. The final indicators for behaviors on sustainability are sus\_1, sus\_4, sus\_5, sus\_6 and sus\_11 (Table 1).

Latent Construct	Indicator	Outer Loadings	Mean	SD
	over_1	0,600	3.484	4.000
	over_2	0,633	3.008	3.000
Overtourism	over_3	0,808	2.889	3.000
	over_4	0,771	3.008	3.000
	over_5	0,809	3.143	3.000
	over_6	0,763	2.476	2.000

<b>Table 1.</b> Factor loadings, mean, standard deviation after correcting problems
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Latent Construct	Indicator	Outer Loadings	Mean	SD
	over_7	0,784	3.167	3.000
	over_8	0,722	3.405	4.000
	sat_1	0,809	Loadings         Mean           0,784         3.167           0,722         3.405	4.000
	Indicator         Loadings         Mean           over_7         0,784         3.167           over_8         0,722         3.405           sat_1         0,809         3.635           sat_2         0,834         3.913           sat_3         0,814         3.675           sat_4         0,807         3.254           sat_5         0,676         3.857           sat_6         0,798         3.937           sat_7         0,816         3.905           sat_8         0,833         3.198           sat_9         0,693         3.310           sat_10         0,798         3.651           sus_1         0,802         2.905           sus_4         0,604         3.325           sus_5         0,750         3.349           sus_6         0,724         3.714	4.000		
	sat_3	AtorLoadingsMeanSD $-7$ 0,7843.1673.000 $-8$ 0,7223.4054.000 $-1$ 0,8093.6354.000 $2$ 0,8343.9134.000 $2$ 0,8343.9134.000 $3$ 0,8143.6754.000 $4$ 0,8073.2543.000 $5$ 0,6763.8574.000 $6$ 0,7983.9374.000 $7$ 0,8163.9054.000 $8$ 0,8333.1983.000 $9$ 0,6933.3103.000 $10$ 0,7983.6514.000 $11$ 0,8022.9053.000 $24$ 0,6043.3253.000 $-5$ 0,7503.3493.000 $-6$ 0,7243.7144.000		
	over_8 $0,722$ $3.405$ $4.0$ sat_1 $0,809$ $3.635$ $4.0$ sat_2 $0,834$ $3.913$ $4.0$ sat_3 $0,814$ $3.675$ $4.0$ sat_4 $0,807$ $3.254$ $3.0$ sat_5 $0,676$ $3.857$ $4.0$ sat_6 $0,798$ $3.937$ $4.0$ sat_7 $0,816$ $3.905$ $4.0$ sat_8 $0,833$ $3.198$ $3.0$ sat_9 $0,693$ $3.310$ $3.0$ sat_10 $0,798$ $3.651$ $4.0$ sus_1 $0,802$ $2.905$ $3.0$ sus_4 $0,604$ $3.325$ $3.0$	3.000		
Tourists'	sat_5	0,676	3.857	4.000
Tourists' Satisfaction         sat_5         0,676         3.857           sat_6         0,798         3.937           sat_7         0,816         3.905           sat_8         0,833         3.198	sat_6	0,798	3.937	4.000
	3.905	4.000		
	over_8         0,722         3.405         4           sat_1         0,809         3.635         4           sat_2         0,834         3.913         4           sat_3         0,814         3.675         4           sat_3         0,814         3.675         4           sat_3         0,814         3.675         4           sat_4         0,807         3.254         3           sat_5         0,676         3.857         4           sat_6         0,798         3.937         4           sat_7         0,816         3.905         4           sat_8         0,833         3.198         3           sat_9         0,693         3.310         3           sat_10         0,798         3.651         4           sus_1         0,802         2.905         3           sus_4         0,604         3.325         3           sus_5         0,750         3.349         3           sus_6         0,724         3.714         4	3.000		
		3.310	3.000	
	sat_10	Image         Mean         SD $0,784$ $3.167$ $3.00$ $0,722$ $3.405$ $4.00$ $0,809$ $3.635$ $4.00$ $0,809$ $3.635$ $4.00$ $0,809$ $3.635$ $4.00$ $0,834$ $3.913$ $4.00$ $0,814$ $3.675$ $4.00$ $0,807$ $3.254$ $3.00$ $0,676$ $3.857$ $4.00$ $0,798$ $3.905$ $4.00$ $0,816$ $3.905$ $4.00$ $0,833$ $3.198$ $3.00$ $0,693$ $3.310$ $3.00$ $0,693$ $3.310$ $3.00$ $0,798$ $3.651$ $4.00$ $0,802$ $2.905$ $3.00$ $0,604$ $3.325$ $3.00$ $0,750$ $3.349$ $3.00$ $0,724$ $3.714$ $4.00$	4.000	
	sus_1	0,802	2.905	3.000
	sus_4	0,604	3.325	3.000
Behavior on sustainability	sus_5	0,750	3.349	3.000
j	sus_6	0,724	3.714	4.000
	sus_11	0,679	3.611	4.000

**Source(s):** Author's own work

## 5.2. Common method bias and multicollinearity

Given that the data were gathered through a survey utilizing self-administered questionnaires, there exists a potential concern regarding Common Method Bias (CMB). In their study, Kock & Lynn (2012) conducted an analogous analysis, leading them to advocate for the utilization of the full collinearity test as a superior method for detecting common method bias. As per Kock (2015), this method was again proved to be effective in pinpointing the presence of common method bias. Moreover, establishing the absence of multicollinearity is vital prior to hypothesis testing. To ensure the integrity against CMB and to avoid issues of collinearity, the study showcased the Variance Inflation Factor (VIF) for individual items along with the VIF values for the constructs under investigation (Kock, 2015). According to Kock (2015), the VIF value for individual items should not exceed 3.33. The study found that the VIF values for all 23 factors remained below 3.33, thus meeting the criteria to rule out multicollinearity concerns. Moreover, from Table 2, the VIF values for the constructs within the study were all under the 3.33 threshold, indicating that CMB did not pose a significant issue in this research.

	Cronbach's alpha	Composite reliability	Average variance extracted (AVE)	Inner VIF	Forne	ell and Lar	cker
	(>0.7)	(>0.7)	(>0.5)	(<3.33)	SUS	OVER	SAT
SUS	0,762	0,838	0,511	_	0.715	_	_
OVER	0,882	0,906	0,548	1.024	0.239	0.740	_
SAT	0,933	0,943	0,623	1.000	0.512	-0.153	0.790

**Source**(s): Author's own work

### 5.3. Measurement model assessment

After the adjustment of indicators for the SUS construct, the study found that all indicators used to assess the measurement model were adequate. The values for Cronbach's alpha, Composite Reliability (CR), and Average Variance Extracted (AVE) exceeded the established thresholds. Additionally, the study satisfied the Fornell-Larcker criterion, as the diagnostic values surpassed the inter-construct correlation values (Fornell and Larcker, 1981). Consequently, the research constructs exhibited confirmed discriminant validity.

#### 5.4. Structural model assessment

Table 3 presents the structural model analysis result. The value of R<sup>2</sup> for SAT was 0.023, and SUS was 0.365, indicating weak moderate values respectively. Accordingly, the predictions of both the constructs in the present model were relatively substantial. In this study, the f<sup>2</sup> effect size of SAT was 0.024 (relatively small), and that of SUS was 0.038 (relatively large).

Hypothesis 1 states that Overtourism has a negative impact on Tourists' satisfaction. The result indicates that this relationship was not statistically significant at  $\beta = -0.153$  (t = 1.000, p > 0.1). Therefore, the existence of hypothesis 1 is not confirmed.

Hypothesis 2 indicates that Tourists' satisfaction has a positive impact on tourists' sustainable behaviors. The result indicates that this relationship was statistically significant at  $\beta = 0.562$  (t = 8.802, p < 0.1). Therefore, hypothesis 2 is supported.

Hypothesis 3 posits that Overtourism positively affects tourists' sustainable behaviors. The results show that this relationship was statistically significant at  $\beta = 0.325$  (t = 3.859, p < 0.1). Thus, hypothesis 3 is supported.

The indirect effect of Overtourism (OVER) through the Tourists' satisfaction (SAT) on tourists' sustainable behaviors (SUS) has a coefficient of  $\beta = -0.086$  (t = 0.959, p > 0.1). This means that the indirect effect had no statistical significance. Furthermore, it is a negative effect compared to the direct effect, thus it can be explained that the Tourists' satisfaction destination has no role as a mediator.

	Beta	Standard deviation	T-statistics	P-value	R <sup>2</sup>	f <sup>2</sup>	
		Dire	ct effects				
$OVER \rightarrow SUS$	0.325	0.084	3.859	0.000	_	0.163	
$OVER \rightarrow SAT$	-0.153	0.153	1.000	0.317	0.023	0.024	
$SAT \rightarrow SUS$	0.562	0.064	8.802	0.000	_	0.485	
Indirect effect							
$\begin{array}{l} \text{OVER} \rightarrow \text{ SAT} \\ \rightarrow \text{SUS} \end{array}$	-0.086	-0.088	0.959	0.338	_	_	

 Table 3. The measurement model assessment result after correcting problems

		Total ef	fects			
OVER $\rightarrow$ SUS	0.239	0.136	1.755	0.079	0.365	0.163

**Source**(s): Author's own work

## 6. Discussion and Conclusions

Research results indicate that the impact on tourist satisfaction from their perception of overtourism at that destination is insignificant. This contradicts what researchers expected and past studies suggesting overtourism harms the tourist experience (Ganzaroli, De Noni & Van Baalen, 2017; Sumaryadi et al., 2020; Seraphin et al., 2018). Study by Chen and Tsai (2016) highlights the multifaceted nature of tourist satisfaction. Even with overtourism affecting some aspects (crowds, long lines), satisfaction with core experiences (scenery, attractions) might remain high. Tourists might acknowledge negative impacts of overtourism but it doesn't necessarily affect their overall satisfaction, especially their desire to return or recommend the destination (key measures of Tourist Satisfaction). This aligns with Papadopoulou et al. (2023) suggesting feeling crowded doesn't impact return visits or recommendations. Social interaction, a key psychological desire for tourists according to SIT (Stokols, 1972), might explain this. Tourists might prioritize social aspects even if it means dealing with crowds. Research by Reis and Barrios (2024) suggests tourists might engage in self-serving bias, downplaying negative aspects (crowds) to maintain a positive vacation memory. This can skew data on satisfaction and its indirect effect on responsible behavior. Essentially, tourists develop coping mechanisms to lessen the negative impact of overcrowding on their experience. These findings offer valuable insights for both theory and practical tourism management.

However, the implementation of sustainable behaviors by tourists is still influenced by the level of satisfaction with the tourism experience at the destination and the consequences of overtourism. The study confirms H2, which suggests a positive connection between positive tourist experiences and sustainable behavior. In other words, satisfied tourists who enjoy their destination are more likely to adopt sustainable practices during their travels. This aligns with past research by Su and Swason (2017), Sahabuddin, M et al. (2021), Su L. et al. (2018), linking tourist satisfaction to environmentally friendly behavior, and Kastenholz et al. (2016), focusing on tourist spending on local products. Similar to Orams (1995) who found satisfaction with ecotourism experiences leads to more sustainable behavior, this study highlights the importance of experiences in tourism. Since tourism is essentially an experience, and emotional experiences heavily influence behavior (Su & Hsu, 2013), understanding how positive emotions from a destination's eco-friendly reputation translate to sustainable actions is crucial. This knowledge can inform strategic marketing, segmentation, and communication efforts to promote responsible tourism practices.

Lastly, the hypothesis that overtourism has a positive impact on tourists' behavior on sustainability has been accepted. This shows that when a tourist perceives that a destination is suffering the consequences of overtourism, they will tend to engage in more sustainable behaviors in order to protect the destination and tourism there. This is completely in line with the development of sustainable tourism from mass tourism as stated by Wheeller (1991). This result is similar to the study by Fan et al. (2014) which showed that the image of a destination in terms of infrastructure, scenery, etc. has an indirect influence on the formation of responsible tourist behavior. Many studies have investigated the formation of tourist behavior through group norms, i.e. acting according to the majority and their community. However, Lin. et al. (2022) argue that tourists, especially the new generation (Gen Y), will tend to break away from group norms more than Gen X when they feel a connection to the destination. Studies show that feeling a strong emotional connection to a place can make tourists more empathetic and bonded to it. This in turn leads them to be more willing to protect the place and act in ways that benefit its sustainability, even if it means giving up some of their own enjoyment (Hinds & Sparks, 2008; Ramkissoon et al., 2013). In conclusion, this study provides evidence that overtourism can have a positive impact on tourists' behavior on sustainability.

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