



# Can Serviced Apartments Become The Next Green Disruptor in Hospitality? An Empirical Study in Nha Trang, Vietnam

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**Abstract.** As sustainability continues to influence people's propensity to travel and the competitive landscape of the hospitality industry, serviced apartments are gaining attention as an emerging alternative to traditional hotels — offering a balance of economic efficiency, social engagement, and environmental responsibility. Yet, little area of research interests addresses why travelers choose these lodging options, especially in emerging destinations where longer stays are becoming more common. This study applies the Theory of Planned Behavior (TPB) to explore how perceptions of sustainability practices in serviced apartments influence travelers' attitudes, subjective norms, perceived behavioral control, and ultimately their intention and actual decision to stay in serviced apartments during extended visits to Nha Trang, Vietnam. The authors propose a framework that links perceptions of green practices — such as energy-saving systems, local community partnerships, and value-for-money benefits — to the psychological drivers of visitors' behavior. Based on data collected from 312 travelers, regression results show that these sustainable efforts conducted via environmental, social, and economic practices significantly improve attitudes, strengthen social influence, and boost perceived control, all of which increase intention and booking behavior towards serviced apartments. By demonstrating how sustainability can become a decisive factor in accommodation choice, the study offers practical insights for lodging operators aiming to position serviced apartments as credible green alternatives to hotels. It also extends the application of TPB in sustainable tourism by showing how travelers' values translate into concrete decisions in a real-world context.

**Keywords:** Serviced apartments, Sustainable hospitality, Green practices, Green accommodations, Traveler behavior, Sustainable tourism

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## 1 Introduction

Sustainability has shifted from a secondary concern to a core principle in tourism and hospitality. Travelers increasingly consider environmental, social, and economic impacts when selecting accommodation, prompting providers to incorporate green practices into their offerings (Misik & Nagy, 2025). In this context, sustainability has become a competitive differentiator that influences brand reputation, guest loyalty, and long-term performance (Popşa, 2023; Rodrigues et al., 2025).

Serviced apartments, combining residential features with hotel-like services, are growing in popularity, especially among medium- and long-stay travelers. Their structural characteristics, such as kitchens and living areas, allow greater resource efficiency and give guests more control over daily consumption. Unlike hotels, where sustainability is primarily driven by centralized operations, serviced apartments decentralize sustainable practices, enabling guests themselves to regulate energy use, waste, and resource management. This autonomy, alongside extended-stay flexibility, positions serviced apartments not only as a sustainable alternative but also as potential green disruptors that challenge traditional hotel-centric sustainability models. Despite this, scholarly attention to serviced apartments remains limited, with most sustainability research focused on hotels and resorts (Makoondlall-Chadee & Bokhoree, 2024).

To address this gap, the present study applies the Theory of Planned Behavior (TPB; Ajzen, 1991) to examine how perceived environmental, social, and economic sustainability practices influence travelers' psychological drivers and actual booking choices. TPB posits that attitude, subjective norm, and perceived behavioral control shape behavioral intention, which in turn predicts behavior. TPB has been widely validated in green lodging contexts (Han, 2010; Ferreira et al., 2023), and may be particularly relevant for serviced apartments, where guests directly engage in sustainability-related behaviors such as waste reduction and energy management.

Previous research confirms TPB's relevance in explaining sustainable hotel choices (Han, 2010; Ferreira et al., 2023) and shows that perceptions of sustainability across environmental, social, and economic dimensions positively influence visitor responses and loyalty (Rodrigues et al., 2025). However, these studies largely overlook serviced apartments and do not explore whether sustainability perceptions contribute to a disruptive shift in lodging preferences by empowering guests to enact sustainable lifestyles more actively than in hotel environments.

This study fills these gaps by investigating how perceived sustainability practices influence TPB constructs and, subsequently, travelers' intention and booking behavior during extended trips to Nha Trang, Vietnam. The study advances theory by integrating triple-bottom-line sustainability perceptions as antecedents to TPB belief structures and examining whether serviced apartments exhibit autonomy-based, decentralized sustainability traits associated with green disruption. Practically, the

study identifies which sustainability practices operators should emphasize to appeal to environmentally conscious travelers.

## 2 Literature Review

### 2.1 Serviced Apartments in Sustainable Hospitality

The definition of serviced apartments varies across countries, with no universally accepted standard. They are generally described as fully furnished, self-contained units for short-term stays that include a living area and a fully equipped kitchen (Greenberg and Rogerson, 2015). These features distinguish serviced apartments from traditional hotels and require different demand-side approaches related to image, quality signals, and guest expectations (Moreno-Gil & Martín-Santana, 2015). In sun-and-beach destinations, self-contained and serviced apartments (SCSAs) face positioning challenges associated with balancing guest autonomy, service provision, and perceived value (Moreno-Gil & Martín-Santana, 2015).

Demand for serviced apartments has been strengthened by trends such as digital nomadism, remote work, and slow travel, which favor larger spaces, independence, and cost efficiency for extended stays (Li, 2022). According to Li (2022), the global serviced apartment sector exhibits distinct value propositions and demand patterns that differentiate it clearly from traditional hotels.

Serviced apartments also differ structurally from hotels in their sustainability logic. Guests directly control daily activities such as cooking, air-conditioning, laundry, and waste sorting, making sustainability partly guest-driven rather than solely operational. This autonomy enables environmental and social practices to be co-created through longer stays and household-like routines, positioning serviced apartments as a potential challenger to conventional hotel-based models of sustainable value creation and reflecting characteristics of disruptive business models that alter user roles and resource control (Christensen, 1997).

These dynamics are particularly relevant in Vietnam, where travelers increasingly value affordability, flexibility, and community integration, and where serviced apartments have expanded rapidly in coastal destinations such as Nha Trang. The Vietnamese serviced apartment market has grown significantly in recent years, driven by demand from tourists, expatriates, and long-stay travelers seeking convenience and cost efficiency (Ken Research, 2025). This context provides an appropriate setting to examine whether sustainability perceptions in serviced apartments shape traveler beliefs differently from those associated with traditional hotels.

Despite increasing interest from investors and operators, academic research on serviced apartments—especially regarding how sustainability perceptions influence traveler behavior—remains limited. Existing studies largely focus on investment

and supply dynamics, with far fewer examining how travelers cognitively evaluate serviced apartments or incorporate sustainability considerations into lodging decisions. This gap underscores the relevance of applying a behavioral framework such as the Theory of Planned Behavior (TPB) to examine sustainability-driven decision-making in the serviced apartment context.

## 2.2 Sustainability Dimensions

Sustainability in hospitality has evolved from an operational concern to a strategic asset and source of competitive advantage (Kim et al., 2017; Fernández-Robin et al., 2019). Initially motivated by cost reduction (Hsieh, 2012), green practices now encompass environmental preservation, social responsibility, and resource management (Kirk, 2010), with evidence linking these initiatives to improved hotel performance (Gil et al., 2001; Molina-Azorín et al., 2008).

To explain how sustainability affects consumer behavior, hospitality research commonly applies the Theory of Planned Behavior (TPB), which connects green practices to guest intentions through attitudes, subjective norms, and perceived behavioral control (Han et al., 2010).

Within TPB, environmental practices refer to guest-perceived actions related to energy, water, and waste management (Trang et al., 2018). Visible environmental commitment strengthens Subjective Norms (H1) by signaling socially desirable behavior (Fauzi et al., 2024), while resource-conservation initiatives enhance cognitive value and positively influence Attitude (H2) (Han et al., 2019). Tangible measures such as energy-efficient lighting, towel reuse, and key-card power controls further reinforce favorable evaluations (Martinez & Bosque, 2013).

Sustainable practices also incorporate social and economic dimensions. Social practices (SOC), encompassing employee well-being and community engagement (Kim & Scullion, 2013; Lee & Kim, 2015), positively influence Attitude (H4) and reinforce Subjective Norms (H3). Economic practices (ECO), reflecting operator financial viability (Alsawafi et al., 2021) and perceptions of fair value and pricing transparency (Tran et al., 2018), enhance Attitude (H5) and increase Perceived Behavioral Control (H6) by reducing perceived affordability barriers.

## 2.3 Linking Sustainability Dimensions to TPB Belief Formation

The effects of environmental, social, and economic practices on traveler decision-making are best explained through the belief-based structure of the Theory of Planned Behavior (TPB). TPB posits that behavioral, normative, and control beliefs shape Attitude, Subjective Norm, and Perceived Behavioral Control, respectively (Ajzen, 1991). In

hospitality research, sustainability cues act as belief antecedents that guide guest evaluations of accommodation options (Han, Hsu, & Sheu, 2010; Chen & Tung, 2014), including serviced apartments.

Within TPB, environmental and social practices influence behavioral and normative beliefs by signaling socially desirable values, thereby shaping Attitude and Subjective Norm (Paul, Modi, & Patel, 2016). Economic practices primarily inform control beliefs by signaling affordability and feasibility, influencing Perceived Behavioral Control (Yadav & Pathak, 2017). These pathways may be stronger in serviced apartments, where guest autonomy over resource use heightens the salience of control beliefs in sustainability-related decisions (Kim, Njite, & Hancer, 2013).

Although TPB is well established in green hotel research, its application to serviced apartments remains limited. Greater autonomy may alter the cognitive weight of sustainability perceptions, with economic practices more salient for long stays (Dolnicar, 2018) and social practices more relevant in residential settings (Lee & Kim, 2015). By integrating triple-bottom-line practices into TPB belief formation, this study extends the framework beyond traditional hotels and provides the basis for the hypotheses that follow.

## 2.4 Theory of Planned Behavior (TPB)

### Subjective Norms

Subjective Norm refers to perceived social pressure to perform or avoid a behavior (Ajzen, 1991). In sustainable hospitality, it reflects the influence of social expectations, peer attitudes, and cultural norms toward responsible tourism (Han, 2015). When eco-friendly accommodation choices are supported by family, friends, or online communities, travelers are more likely to align their decisions accordingly. Empirical evidence confirms that social influence significantly shapes intention to choose environmentally responsible accommodations (Fauzi, Hanafiah, & Kunjuraman, 2024). In the serviced apartment context, particularly among long-stay guests and families, these normative pressures may be especially influential.

**H7:** Subjective Norm (SN) positively influences Visit Intention (VI) to stay in serviced apartments.

### Attitude toward Staying in Serviced Apartments

Attitude reflects an individual's positive or negative evaluation of performing a behavior (Ajzen, 1991). In hospitality research, attitude consistently predicts pro-environmental lodging choices (Han, Hsu, & Sheu, 2010; Chen & Tung, 2014). When

travelers perceive serviced apartments as adopting sustainable practices, such as energy efficiency or social responsibility, they develop favorable attitudes toward staying in them. This positive evaluation increases the likelihood of choosing serviced apartments for future stays (Verma & Chandra, 2018).

**H8:** Attitude (AT) positively influences Visit Intention (VI) to stay in serviced apartments.

### Perceived Behavioral Control (PBC)

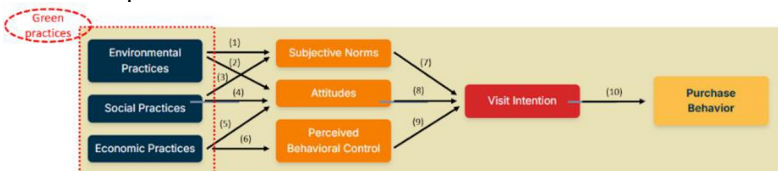
Perceived Behavioral Control reflects travelers' perceived ability to perform a behavior based on available resources and constraints (Ajzen, 2002). In sustainable serviced apartments, it captures travelers' confidence in their ability to access, afford, and book eco-friendly options. Prior findings are mixed: Han and Yoon (2015) found PBC to be insignificant in green hotel choice, whereas Yadav and Pathak (2017) showed that greater perceived control—through availability, transparency, and reasonable pricing—enhances intention. Overall, higher PBC increases perceived convenience and empowerment, strengthening intention to choose sustainable serviced apartments.

**H9:** Perceived Behavioral Control (PBC) positively influences Visit Intention (VI) to stay in serviced apartments.

### Visit Intention and Actual Choice Behavior

Within TPB, behavioral intention is the most immediate predictor of actual behavior (Ajzen, 1991). In hospitality, stronger intention to stay in a serviced apartment increases the likelihood of actual booking. Empirical evidence supports this link in green lodging contexts (Chen & Peng, 2023), although an intention–behavior gap may occur at broader market levels (Chi et al., 2022). In serviced apartments, longer stays and higher involvement in decision-making may reduce this gap, leading to stronger intention–behavior alignment.

**H10:** Visit Intention (VI) positively predicts Actual Choice/Purchase Behavior to stay in a serviced apartment.



**Fig. 1.** Sustainable Practices Conceptual Framework

### 3 Methodology

This research applied quantitative design to test the impact of perceived sustainability practices on intention to use and actual choice of booking service apartments in Nha Trang. The research was conducted in October 2025. Surveys were disseminated online (N=312), using purposive sampling and snowball sampling. Gender balance was maintained, with 57.7% of males and 40.1% of females participating. Survey participants must have experiences travelling to Nha Trang and they must be aged 18 and above. The majority was aged 25-34 (45.2%), and 18-24 (30.1%), followed by 35-44 (20.2%) and 45-54 (3.2%). Most participants lived in Ho Chi Minh City (55.1%), Hanoi (22.1%), and Da Nang (3.2%). 19.6% came from other cities in Vietnam. Participation was voluntary and all data were collected anonymously. The questionnaire was distributed online, using Google Forms. The questionnaire has 4 parts, including: 1) screening, 2) sustainability dimensions, 3) TPB and 4) demographics. The questionnaire was then translated to Vietnamese and back translated to English to ensure accuracy, confirming that the meaning is preserved.

Measurement scales were adapted from previous scales, using 7-point Likert scales. Measurement scales of sustainability dimensions were adapted from Han et al. (2019), Kim et al. (2017), Merli et al. (2019), Preziosi et al. (2022), Ferreira et al. (2023), Meng et al. (2024), with 6 items for perceived environment practices, 5 for economic, and 6 for social; which were widely cited among researchers in the field (Han et al., 2019; Merli et al., 2019; Preziosi et al., 2022; Lee & Kim, 2015). The scales have good Cronbach's alpha (0.7) in previous studies, indicating good internal consistency. In this study, the Cronbach's alpha of the scales ranged from 0.63-0.67, which was slightly lower than the threshold (0.70), but still considered to be acceptable for exploratory studies in social science (Hair, 2009). This study applied TPB from studies of Han, Hsu, & Sheu (2010), Han (2015), Piramanayagam et al. (2024), Verma & Chandra (2018), and Yadav & Pathak (2017). TPB is frequently used in the field to examine factors influencing purchase intention of customers. In previous studies, measurement scales of subjective norms, attitudes, PBC and intention have very good Cronbach's alpha (0.80 to 0.93), showing good internal consistency. These scales were adapted to measure the said variables in this study, with 5, 9, 7 and 6 items to measure subjective norms, attitudes, PBC and intention respectively. The Cronbach's alphas of these scales were acceptable in this study, in particular,  $\alpha = 0.69$  for subjective norms,  $\alpha = 0.76$  for attitudes,  $\alpha = 0.62$  for intention. However, the Cronbach's alpha of the PBC scale is slightly lower ( $\alpha = 0.54$ ), suggesting low internal consistency. The item-total correlations of the 7 items of PBC scale were examined, which shows that item 1 and 2 weakly correlated ( $r = 0.17$  and  $r = 0.20$  respectively) with the rest of the scale ("Whether or not I stay at a serviced apartment with green practices when traveling is completely up to me." and "I am confident that if I want, I can stay at a serviced apartment with green practices when traveling."). These items appear to measure "internal" perceived control or self-efficacy, while the other items measure "external" perceived control,

for instance, item 3 and 4 are “I can easily find information about sustainable serviced apartments in Nha Trang.” and “I have resources, time, and opportunities to stay at a serviced apartment with green practices when traveling.” However, the  $\alpha$  if items deleted is lower than the overall  $\alpha$  (0.53). Removing any one item would not improve internal consistency, thus, these items were retained. The low Cronbach’s alpha of the PBC scale may be due to the small number of items in the scale and potential multidimensionality of the construct. Although alpha is below the threshold (0.70), the scale was retained because of its theoretical importance in the TPB model and that it has been used and tested in many previous studies in the field (Han et al., 2009; Chen & Tung, 2014; Han & Kim, 2010; and Kim et al., 2013). Future studies should consider revising or expanding the items to improve reliability. Results were input to SPSS for analysis and logistic, simple, multiple linear regression were the main analysis tests used in this study.

## 4 Results

Multiple linear regression analyses were used to examine the impact of sustainability dimensions, subjective norms, attitudes and PBC on intention to book serviced apartments when travelling to Nha Trang, and to test the impact of intention on actual choice.

A multiple linear regression was conducted to examine whether perceived environmental practices and social practices predict social norms. The overall model was significant,  $F(2, 309) = 78.07$ ;  $p < .001$ ), explaining approximately 33.6% of the variance in SN ( $R^2=0.336$ ). Both predictors were significant (see Table 1). The effect size was large ( $f^2=0.51$ ), indicating that the predictors collectively have a large impact on social norms. The results suggest that perceived environmental practices and social practices are strong predictors of social norms, with social practices being slightly more influential. The large effect size underscores the practical importance of these variables in explaining social norms of Nha Trang travellers in choosing service apartments. Based on this result, H1 and H3 are accepted.

**Table 1.** Multiple linear regression predicting social norms by perceived environmental and social practices

	<b>B</b>	<b>SE</b>	<b><math>\beta</math></b>	<b>t</b>	<b>p</b>
Constant	1.253	0.347		3.61	< .001
EVN	0.334	0.061	.298	5.45	< .001
SOC	0.418	0.063	.363	6.64	< .001

A multiple linear regression was conducted to examine if perceived environmental, social and economic practices predict attitude. The overall model was significant,

$F(3, 308) = 98.79, p < .001$ , explaining 49.0% of the variance in the dependent variable ( $R^2 = 0.490$ ). All predictors were significant, suggesting that these predictors have an impact on attitude. Perceived economic practices emerged as the strongest predictor of attitude ( $\beta=0.362$ ), followed by perceived social and environmental ones (see Table 2). The large effect size ( $f^2=0.96$ ) indicates their practical importance in predicting consumer attitudes when choosing service apartments in Nha Trang. H2, H4 and H5 are thus accepted.

**Table 2.** Multiple linear regression predicting attitude by perceived environmental, social and economic practices

	<b>B</b>	<b>SE</b>	<b><math>\beta</math></b>	<b>t</b>	<b>p</b>
Constant	1.377	0.262		5.26	< .001
EVN	0.200	0.050	.217	3.96	< .001
SOC	0.248	0.046	.262	5.34	< .001
ECO	0.327	0.047	.362	6.91	< .001

A simple linear regression was conducted to test the impact of perceived economic practices on PBC. The model was significant,  $F(1, 310) = 39.47, p < .001$ , explaining 11.3% of the variance in the dependent variable ( $R^2 = 0.113$ ) (see Table 3). The effect size was small-to-medium ( $f^2 = 0.13$ ), indicating that the predictor has a modest impact on PBC. H6 is therefore accepted.

**Table 3.** Simple linear regression predicting perceived behaviour control by perceived economic practices

	<b>B</b>	<b>SE</b>	<b><math>\beta</math></b>	<b>t</b>	<b>p</b>
Constant	3.729	0.281		13.27	< .001
ECO	0.303	0.048	.336	6.28	< .001

A multiple linear regression was conducted to test the impact of attitude, social norms and PBC on visit intention. The overall model was significant,  $F(3, 308) = 57.32, p < 0.001$ , explaining 35.8% of the variance in visit intention ( $R^2 = 0.358$ ). All independent variables in the model significantly predict the visit intention, with social norms being the dependent variable with the most impact ( $\beta=0.259, p < 0.001$ ), followed by PBC ( $\beta=0.248, p < 0.001$ ) and attitude ( $\beta=0.233, p < 0.001$ ). The effect size was large ( $f^2 = 0.56$ ). The large effect size indicates the importance of these variables in predicting the variance in visit intention. H7, 8, 9 are accepted.

**Table 4.** Multiple linear regression predicting visit intention by attitude, social norms and perceived behaviour control

	<b>B</b>	<b>SE</b>	<b><math>\beta</math></b>	<b>t</b>	<b>p</b>
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Constant	0.833	0.354		2.35	.019
ATT	0.269	0.065	.233	4.14	< .001
SN	0.245	0.053	.259	4.64	< .001
PBC	0.287	0.062	.248	4.66	< .001

A binary logistic regression was conducted to examine whether visit intention predicts the likelihood of the actual choice. The model was significant, ( $\chi^2(1)=12.35$ ,  $p<0.001$ ). Visit intention significantly predicts actual choice to stay at service apartments ( $B=0.48$ ,  $SE=0.14$ ,  $Wald= 12.35$ ,  $p < 0.001$ ), with an odds ratio of 1.62 (95% CI [1.24, 2.11]). This indicates that for each one-unit increase in visit intention, the odds of the actual choice increase by approximately 62% (see Table 5). This result shows that visit intention positively impacts the likelihood of actual choice, leading to the acceptance of H10. The confidence interval does not cross 1, confirming the robustness of this effect.

**Table 5.** Binary logistic regression predicting actual choice by visit intention

<b>Predictor</b>	<b>B</b>	<b>SE</b>	<b>Wald</b>	<b>df</b>	<b>p</b>	<b>Odd Ratio</b>	<b>95% CI for Odd Ratio</b>
<b>VI</b>	<b>0.480</b>	<b>0.137</b>	<b>12.35</b>	<b>1</b>	<b>&lt; .001</b>	<b>1.62</b>	<b>[1.24, 2.11]</b>
<b>Constant</b>	<b>-3.216</b>	<b>0.759</b>	<b>17.98</b>	<b>1</b>	<b>&lt; .001</b>	<b>0.04</b>	

## 5. Discussion and Theoretical Contributions

The present study set out to investigate how perceptions of sustainability practices across environmental, social, and economic dimensions influence travelers' psychological and behavioral responses toward serviced apartments in Nha Trang, Vietnam. Grounded in the Theory of Planned Behavior (TPB; Ajzen, 1991), the study enriches sustainable hospitality research by extending this well-established model to the under-explored serviced-apartment segment, which sits at the intersection of residential comfort and hotel convenience. The results strongly support the TPB framework: attitude, subjective norm, and perceived behavioral control significantly predict visit intention, and intention positively predicts actual booking behavior. Beyond confirming TPB pathways, the findings reveal novel behavioral mechanisms specific to serviced apartments, such as the heightened influence of economic sustainability and the strong role of social approval, which together suggest that serviced apartments may foster a distinct sustainability logic compared with traditional hotels.

The findings reinforce the robustness of the Theory of Planned Behavior (TPB) in explaining sustainable consumption within hospitality (Han & Kim, 2010; Chen & Tung, 2014; Yadav & Pathak, 2017). Attitude, subjective norm, and perceived behavioral control significantly shaped intention, consistent with previous green hotel research (Han, Hsu, & Sheu, 2010; Verma & Chandra, 2018), but extended here to serviced apartments—a setting in which guests exercise greater autonomy. Sustainability cues embedded in apartment design, such as energy-efficient appliances, in-unit waste sorting, and resource-tracking tools, may therefore be especially influential in shaping attitudinal and normative beliefs.

A central theoretical insight is that subjective norm exerted the strongest effect on intention, surpassing attitude and perceived behavioral control. This aligns with evidence that social influence is a powerful driver of eco-friendly travel behavior, particularly in collectivist cultures (Han, 2015; He & Filimonau, 2020). Increasing visibility of sustainability cues on digital platforms—eco-labels, ratings, and influencer content—amplifies the perception that choosing sustainable lodging is socially endorsed (Mohammad et al., 2024; Ding et al., 2024). In serviced apartments, commonly used by families, long-stay travelers, and digital nomads, these normative pressures may be even stronger because guests integrate into local communities and assess their choices relative to perceived social approval.

Another key contribution is the finding that economic sustainability was the strongest predictor of attitude, outweighing environmental and social dimensions. Travelers appear to interpret sustainability not only as an environmental good but also as a value-driven construct tied to affordability, fairness, and local economic benefit. This supports research showing that perceived economic value strengthens favorable sustainability attitudes (Kang et al., 2012; Rahman & Reynolds, 2019). It also aligns with multidimensional sustainability models emphasizing fair pricing, transparent costs, and community contribution (Rodrigues & Dedat, 2025). Because stays in serviced apartments are typically longer, cost sensitivity is higher, making economic sustainability especially salient.

The significant role of perceived behavioral control (PBC) highlights the importance of perceived feasibility in sustainable lodging choices. Consistent with Yadav and Pathak (2017), confidence in one's ability to locate, afford, and book sustainable serviced apartments strengthens intention. While some hotel-based studies show limited PBC influence (Han & Yoon, 2015), serviced apartments reduce constraints through transparent booking systems, flexible durations, and user-controlled amenities. This autonomy enhances travelers' sense of empowerment (Kim, Lee, & Han, 2020; Piramanayagam et al., 2024), suggesting that PBC may carry additional explanatory power where guests manage their own living environment.

This study further extends the TPB by linking the three sustainability pillars—environmental, social, and economic—to TPB belief structures. Few studies have empirically integrated all three simultaneously, despite calls for more holistic sustainability models (Ozturkoglu et al., 2021; Ruíz-Molina et al., 2024). The findings reveal that sustainability judgments arise from a constellation of cues tied not only to environmental responsibility but also to fairness and social participation, contributing to a more integrative behavioral framework.

The positive effect of intention on actual booking behavior reinforces TPB's predictive validity (Ajzen, 1991) and suggests that serviced apartments may reduce the intention–behavior gap often observed in sustainable hospitality (Chi et al., 2022). Because this accommodation type involves longer planning and greater control over resource use, travelers may find it easier to translate sustainable intentions into action.

Overall, the results highlight a distinct sustainability logic emerging in serviced apartments, one combining autonomy, cost efficiency, and community engagement. This aligns with characteristics of disruptive business models in which new entrants reshape value creation by redistributing control to users (Christensen, 1997), suggesting that guest-enabled sustainability may differentiate serviced apartments from traditional hotels.

## **5.2 Managerial Implications**

First, operators should position serviced apartments as sustainable living spaces by communicating authentic environmental and economic commitments, including energy-efficient appliances, fair pricing, and local sourcing. These practices strengthen attitudes (Han & Kim, 2010) and emotional trust (Rahman & Reynolds, 2019). Second, leveraging social influence through eco-certifications, peer reviews, and influencer endorsements can reinforce subjective norms. Third, highlighting cost transparency and community contributions can convert sustainability appeal into perceived economic value, particularly for long-stay guests. Finally, enhancing perceived control through intuitive booking systems, sustainability dashboards, and in-unit guidance can strengthen sustainable behavior and revisit intention.

## **5.3 Limitations and Future Research**

Several limitations should be noted. The focus on Nha Trang may limit generalizability to other destinations; future studies could test the model across cultural and geographic contexts (He & Filimonau, 2020). The cross-sectional design restricts causal inference, suggesting the need for longitudinal or experimental approaches. The relatively low reliability of the PBC scale indicates scope for refinement by incorporating additional

indicators of financial, informational, and situational control (Hair, 2009). Future research could also integrate affective and moral constructs, such as anticipated emotions (Kim et al., 2013) or environmental self-identity (Whitmarsh & O'Neill, 2010), to further enrich understanding of sustainable lodging behavior.

## 6. Conclusion

This study fills an important gap by explaining how travelers interpret sustainability practices in serviced apartments and how these perceptions shape booking behavior. Integrating triple-bottom-line sustainability with the Theory of Planned Behavior reveals that environmental, social, and economic practices significantly influence attitudes, subjective norms, perceived behavioral control, and actual choice. Economic sustainability most strongly shapes attitudes, while subjective norm is the dominant predictor of intention, highlighting the joint role of value and social influence. The strong intention–behavior link suggests that serviced apartments, which are characterized by longer stays and greater guest autonomy, may help reduce the intention–behavior gap in sustainable tourism. Structural features such as in-unit resource control and extended-stay engagement decentralize sustainability responsibility from providers to guests, redefining traditional hotel-centric models and aligning with principles of disruptive innovation. Practically, transparent communication of value fairness, environmental performance, and community engagement can strengthen differentiation and trust. Overall, serviced apartments represent a distinct lodging model capable of reshaping sustainable consumption and advancing the next phase of green disruption in hospitality.

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