

Exploring Behavioral Intention Toward Sustainable Ecotourism Development among Local Residents Working in the Mekong Delta, Vietnam

Huynh Truong Huy^A, Ho Le Thu Trang^{A1}

^A School of Economics, Can Tho University, Campus II, Ba Thang Hai Street, Ninh Kieu Ward, Can Tho City, Viet Nam; ORCID HTH: 0000-0001-7006-6185; HLTT: 0009-0009-5465-5153

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Abstract

This study aimed to explore various levels of local residents' behavioral intention toward sustainable ecotourism development in the Mekong Delta, Vietnam and identified their key determinants. Using convenience sampling method, a total of 302 responses were used for data analysis. The proposed model involving three dimensions of residents' perceptions (economic, sociocultural and environmental sustainability) and attitude was developed to determine the formation of local residents' participation intention. Furthermore, residents' intention in sustainable development of ecotourism was examined through a second-factor latent variable with four aspects including sustainable community development, natural resources conservation, cultural tradition preservation, and participation in planning and managing ecotourism development. The findings demonstrated that residents' perceptions had direct impacts on their participation intention, which were partially mediated by their attitude. Notably, perceived environmental benefits of local people had the strongest overall effect among the variables examined. Finally, theoretical and managerial implications are discussed.

Keywords: local resident; sustainable ecotourism development; perception; attitude; *behavioral intention*.

Introduction

Over the years, tourism has developed into one of the world's largest and fastest-expanding industries, often accompanied by unsustainable practices that endanger ecosystems and natural resources (Chan, 2013). In address to environmental concerns, including climate change, pollution, and resource depletion, sustainable tourism has come to prominence. Ecotourism—a key form of sustainable tourism—is defined as responsible travel to natural areas that conserves the environment and benefits local communities (TIES, 1990). It promotes environmental awareness, cultural appreciation, and community wellbeing

(Kong, 2014; Fennell, 2001), and is increasingly recognized as an effective strategy for conservation and sustainable development.

Among various stakeholders, local residents play a critical role in the sustainable development of ecotourism (Cheung, 2015; Muresan et al., 2016; Eshliki & Kaboudi, 2017; Pineda et al., 2023). Effective protected area management requires their support and cooperation (Mehta & Heinen, 2001), making it essential to understand their behaviors (Holladay & Ormsby, 2011). Community empowerment and participation in decision-making are also vital for sustainable outcomes (Newmark & Hough, 2000). To foster resident

¹ Corresponding author: Ho Le Thu Trang; e-mail: hltrang@ctu.edu.vn

involvement, governments and ecotourism businesses must identify factors shaping positive attitudes and behavioral intentions, especially where livelihoods depend on local natural resources (Birendra et al., 2018). Residents' perceptions of ecotourism benefits directly influence their willingness to support and engage in related activities (Amuquandoh, 2010; Kim & Butler, 2015).

The existing literature has predominantly examined residents' perceptions, attitude, and behavioral intentions toward the sustainable development of ecotourism; however, empirical investigations that statistically assess these relationships remain limited (Prayag et al., 2013; Liu & Chamaratana, 2024). Furthermore, prior research has largely concentrated on general intention rather than specific participatory activities within ecotourism development (Choi & Murray, 2010; Vargas-Sánchez et al., 2011; Nunkoo & Ramkissoon, 2011; Ven, 2015; Morales et al., 2018; Khalid et al., 2019; Hsu et al., 2019; Ismail et al., 2020; Hassan, 2021; Shen et al., 2022; Pineda et al., 2023; Deb & Rout, 2023; Castillo et al., 2024; Liu & Chamaratana, 2024; Castillo-Vizueté et al., 2024; Jiang & Tian, 2025; Mussina et al., 2025). In response to these gaps, this study sought to provide a deeper understanding of local residents' perception, attitude, and behavioral intention—conceptualized as a second-order construct comprising four dimensions: conservation of natural resources, preservation of cultural traditions, sustainable community development, and participation in ecotourism planning and management. Specifically, the study employed statistical methods to assess the influence of residents' perceptions and attitude on their intention to engage in sustainable ecotourism development activities. The findings were expected to inform strategies aimed at enhancing community support for sustainability within the ecotourism sector.

Literature review

Ecotourism and sustainable development

Initially, ecotourism primarily centered on providing nature-based experiences; however, it has since been promoted as a strategy for developing countries to integrate economic growth with social and environmental objectives (Beaumont, 2011). Wallace and Pierce (1996) defined ecotourism as “travelling to relatively undisturbed natural areas for study, enjoyment, or volunteer assistance. It is travel that concerns itself with flora, fauna, geology, and ecosystems of an area, as well as the people who live nearby, their needs, their culture, and their relationship to the land.” In contemporary discourse, the appeal of ecotourism as both a conservation and development tool lies in its

potential to generate local economic benefits while preserving ecological integrity through low-impact, non-consumptive resource use (Stem et al., 2003). The concept of ecotourism is intrinsically linked to sustainable tourism and should align with the core principles of sustainable tourism and development (UNWTO, 2012). Overall, ecotourism is regarded as a specialized form of sustainable tourism, with both approaches sharing the overarching goals of environmental protection, socio-cultural preservation, and long-term economic enhancement of destinations.

Proposed conceptual framework and research hypotheses

Empirical evidence indicates that tourism development can yield economic, environmental, and socio-cultural benefits for local communities, thereby contributing to the restoration and enhancement of living conditions in tourist destinations (Andereck & Vogt, 2000; Kuvan & Akan, 2005). Ecotourism, in particular, has the potential to address environmental, social, cultural, and economic dimensions in a balanced and efficient manner; however, the extent to which these benefits are realized—or adverse impacts occur—depends largely on how such development is implemented (Okech & Bob, 2009). Achieving long-term success in sustainable tourism development necessitates securing the support of local residents (Ahn et al., 2002). As emphasized by Ap (1992), residents' perceptions and attitudes toward tourism play a critical role in informing planning and policy decisions, which in turn influence the effective development, marketing, and management of both existing and future tourism initiatives.

The Social Exchange Theory was first introduced in the field of behavioral psychology by Homans (1958) and has since been expanded and applied extensively across diverse disciplines (Ahmad et al., 2023). In the tourism context, Gursoy et al. (2010) applied this theoretical framework and argued that when local residents perceive the positive impacts of tourism to outweigh its negative consequences, they are more likely to support tourism development initiatives. Building on this premise, empirical research has examined the influence of residents' perceptions on their support for tourism development. Such studies have assessed residents' perceptions in economic, socio-cultural, and environmental dimensions as key determinants of local communities' behavioral intentions (Jiang, 2008; Tang et al., 2012; Muresan et al., 2016; Wu & Chen, 2016; Abeli, 2017; Haloj et al., 2017). However, prior research has largely focused on residents' support as a general behavioral intention within sustainable ecotourism development, without examining specific

activities (Choi & Murray, 2010; Vargas-Sánchez et al., 2011; Nunkoo & Ramkissoon, 2011; Ven, 2015; Morales et al., 2018; Landra et al., 2018; Khalid et al., 2019; Castillo-Vizuete et al., 2024; Jiang & Tian, 2025; Mussina et al., 2025). The present study aims to address this gap by investigating the influence of three dimensions of residents' perception—economic, socio-cultural, and environmental in positive perspective — on their behavioral intention, conceptualized as a second-order construct comprising four dimensions: natural resource conservation, cultural tradition preservation, sustainable community development, and participation in the planning and management of ecotourism development. These four dimensions are adapted from prior ecotourism research (Lai & Nepal, 2005; Haloi et al., 2017; Wu & Chen, 2016). Previous studies have further demonstrated that second-order factor models often provide a superior fit to the data compared to single-order solutions and offer a more comprehensive representation of the underlying construct (Milfont & Duckitt, 2004; Mansolf & Reise, 2017; Raykov et al., 2024). Accordingly, this study proposed the following hypotheses.

H1a: Positive perception of the economic impacts of tourism positively and significantly influences local residents' behavioral intention toward sustainable ecotourism development.

H1b: Positive perception of the sociocultural impacts of tourism positively and significantly influences local residents' behavioral intention toward sustainable ecotourism development.

H1c: Positive perception of the environmental impacts of tourism positively and significantly influences local residents' behavioral intention toward sustainable ecotourism development.

Rosenberg's model of attitude (1956) posited that an individual's positive or negative feelings toward an object or concept are determined by two cognitive factors: (a) the perceived instrumentality of the object in achieving or hindering a set of valued states, goals, or objectives, and (b) the relative importance of those values, goals, or objectives to the individual. Accordingly, stronger perceptions regarding an object or concept tend to be associated with more favorable attitude. Within tourism research, residents' attitude has been widely used as an indicator of tourism's appropriateness for a given community, with positive attitude reflecting the extent to which tourism development meets social and cultural expectations. For instance, Lepp (2007), using a qualitative approach, found that favorable attitude toward tourism was linked to beliefs that it fostered community development, generated income opportunities, enhanced agricultural markets,

and provided prospects for improved livelihoods. Empirical studies in the context of festivals and special events had similarly demonstrated that residents' perceptions influenced their attitude toward such activities (Li et al., 2014; Kim et al., 2015; Li et al., 2018), though these investigations primarily assessed the relationship in terms of expected economic benefits or costs, thereby overlooking non-economic dimensions. Consistent with this focus, prior research has shown that economic benefits represented a major determinant of residents' attitude toward tourism (Lingberg & Johnson, 1997), with many residents perceiving tourism chiefly as an economic development tool, which in turn fostered positive attitude toward its sustainable growth (Gursoy et al., 2002; Andereck & Vogt, 2000). In contrast, a study in a national park context found no statistically significant relationship between residents' perceptions of environmental benefits and their attitude toward sustainable ecotourism development (Partiro et al., 2023). These gaps in the literature underscored the need for more comprehensive and context-sensitive analyses of the statistical relationship between perception and attitude. Drawing on sustainable ecotourism development theory, the present study examined the effects of positive perceptions in three domains—economic, sociocultural, and environmental—on local residents' attitude toward ecotourism development. So, the following hypotheses were proposed.

H2a: Positive perception of the economic impacts of tourism positively and significantly influences local residents' attitude toward sustainable ecotourism development.

H2b: Positive perception of the sociocultural impacts of tourism positively and significantly influences local residents' attitude toward sustainable ecotourism development.

H2c: Positive perception of the environmental impacts of tourism positively and significantly influences local residents' attitude toward sustainable ecotourism development.

The Theory of Reasoned Action (Fishbein & Ajzen, 1975) defined attitude as "a learned predisposition to respond in a consistently favorable or unfavorable manner with respect to a given object," emphasizing its acquired nature and role in shaping behavior. As a hypothetical construct, attitude preceded and predicted overt actions, serving as a stable basis for behavioral patterns. The Theory of Planned Behavior (Ajzen, 1991) further posited that individuals were more likely to engage in a behavior when they hold a positive attitude toward it, a relationship supported by empirical studies identifying attitude as a key determinant of

behavioral intention (Lita et al., 2014; Suki, 2016). In the context of sustainable tourism, existing literature has explored local residents' perspectives but has often neglected the explicit relationship between residents' attitude and their support for sustainable tourism development (Prayag et al., 2013). This gap could be attributed to the interchangeable use of the terms "attitude" and "support," which complicated the distinction and evaluation of these constructs (Moghavvemi et al., 2017). Some empirical studies had found that residents' support for sustainable tourism development is strongly influenced by their attitude (Nunkoo & Gursoy, 2012; Martin et al., 2017; Moghavvemi et al., 2017). Conversely, Morales et al. (2018) overlooked the attitude–support relationship in their analysis of sustainable development activities. Other research has examined residents' intentions to participate in tourism development, reporting a significant positive association between attitude and behavioral intention (Wu & Chen, 2016; Shen et al., 2019). Given these inconsistent findings and the limited attention to specific sustainable development activities within the ecotourism domain, the present study attempted to examine the influence of local residents' attitude on their behavioral intention toward sustainable ecotourism development, identified as second-order variable through four dimensions. Accordingly, the third hypothesis was proposed.

H3: Local residents' attitude toward ecotourism development positively and significantly influences their behavioral intention toward sustainable ecotourism development.

Additionally, previous studies have demonstrated that the perceived benefits of tourism—encompassing economic, socio-cultural, and environmental dimensions—positively influenced local residents' attitude (Li et al., 2014, Kim et al., 2015, Li et al., 2018) as well as their attitude has been shown to significantly affect their behavioral intention (Nunkoo & Gursoy, 2012, Martin et al., 2017, Moghavvemi et al., 2017). Drawing upon these empirical findings, this study proposed to evaluate the mediating role of local residents' attitude toward ecotourism development in the relationship between their perceptions of tourism benefits and their intentions to develop sustainable ecotourism. Accordingly, the following hypotheses are formulated:

H4a: Local residents' attitude toward ecotourism development positively mediates the relationship between their economic perception and behavioral intention toward sustainable ecotourism development.

H4b: Local residents' attitude toward ecotourism development positively mediates the relationship be-

between their sociocultural perception and behavioral intention toward sustainable ecotourism development.

H4c: Local residents' attitude toward ecotourism development positively mediates the relationship between their environmental perception and behavioral intention toward sustainable ecotourism development.

Methodology

Questionnaire development

The questionnaire was developed through several stages. First, a comprehensive review of the relevant literature was conducted to identify validated measurement scales. In line with recommended practices in scientific research (e.g., Churchill, 1979; DeVellis, 2017; Hair et al., 2019), measurement items were adapted from prior studies to ensure theoretical grounding and content validity. Second, in-depth interviews with tourism experts were conducted to refine the wording, relevance, and contextual suitability of the items for the ecotourism context in the Mekong Delta. Expert consultation is commonly used to improve the content validity and contextual appropriateness of measurement instruments (DeVellis, 2017). Finally, the questionnaire was pre-tested with a small group of respondents to ensure clarity and comprehensibility before the main data collection, which is a recommended step in survey instrument development (Hair et al., 2019).

In specific, following the literature review, in-depth interviews with tourism experts were conducted as a preliminary step to refine and validate the potential attributes of the research constructs and measurement items related to sustainable ecotourism development. These experts were selected based on their professional experience in ecotourism management, tourism planning, or tourism operations in the Mekong Delta region. The purpose of these interviews was not to represent the perceptions of local residents, but rather to obtain professional insights to ensure that the proposed constructs and measurement items were contextually relevant, conceptually clear, and appropriate for the study setting. The feedback obtained from the experts helped refine the wording and relevance of the measurement items before the main research stage focusing on local residents' perceptions, attitudes, and behavioral intentions.

After that, a pilot test was conducted to refine the questionnaire prior to its formal administration. The instrument was administered to 30 local residents working in ecotourism enterprises in the Mekong Delta, Vietnam. Participants evaluated the clarity of

instructions, the comprehensibility of measurement scales, and the appropriateness of wording to minimize potential response difficulties in the main survey. Feedback from this preliminary stage informed revisions to the questionnaire and the final operational definitions of the study's constructs.

Data collection and sample characteristics

For data collection, a non-probability convenience sampling method was employed, using face-to-face interviews with a structured questionnaire. This data collection method was selected as the primary data collection method to allow participants to fully understand and answer questions related to their perceptions and viewpoints. In addition, most of local residents working in the ecotourism sector in the Mekong Delta have relatively limited formal education and little prior exposure to the concept of sustainable ecotourism development, making interviews more suitable for explaining questions and ensuring accurate responses. Eligibility was limited to individuals who had been employed in ecotourism enterprises in the Mekong Delta for a minimum of three years to ensure sufficient industry experience. Primary data were collected from enterprises listed on the official websites of the Departments of Culture, Sports, and Tourism.

A questionnaire was the principal instrument of data collection for the survey. It included three sets of questions: (1) The first section of the questionnaire incorporated those statements relating to local residents' perceptions toward sustainable development of ecotourism. (2) In the second section, respondents rated their level of agreement with statements pertaining to local residents' attitude toward sustainable development practices of ecotourism. (3) The third section expressed local residents' behavioral intentions toward sustainable ecotourism development strategies at ecotourism enterprises. Their level of agreement was rated on a scale of 1 = strongly disagree, and 5 = strongly agree. (4) The last section was designed to generate descriptive information about the respondents.

For the application of structural equation modeling (SEM), a sample size exceeding 200 is generally

considered adequate for producing significant results (Kline, 2005; Hair et al., 2019), while Norusis (2005) recommends a minimum of 300 cases. A too large sample size may even be one of the causes of deterioration of statistical power of a structural equation model (Hair et al., 2019). Based on these guidelines, this study targeted approximately 300 respondents and ultimately obtained 302 usable questionnaires. These respondents presented 55.6% female and 44.4% male. Nearly half of respondents were married, and most of them earned less than 1000 USD per month. In term of age, 38.1% respondents were between 18-24 years of age, followed by 29.5% between 25 and 34 years of age. In addition, 52% of them had vocational training or bachelor degree, 44% finished high school or lower, and 3% had higher level of education. Especially, all of them has been working at current job for at least 3 years.

Results

Dimensions of local residents' perceptions, attitude and intentions

The dimensions of three research concepts including residents' perceptions, attitude and behavioral intentions toward sustainable ecotourism development were conducted reliability test with Cronbach's Alpha. Then, principal axis factoring analyses with the Promax rotation method were utilized to find out the underlying factors. A KMO test was conducted to identify whether the sample was adequate for factor analysis. Hair et al. (2019) recommended a KMO which measuring 0.6 or above is suitable for the data. In addition, Bartlett's test of sphericity should be less than 0.05 to assume the factorability of the correlation matrix. The minimum cut off point for final factor loading of items in factor analysis was 0.5. After deleting some items which had low item-to-total correlations in reliability test (smaller than 0.3), and some items which had low factor loading in EFA (smaller than 0.5) (Hair et al., 2019), the results were showed in table 1,2,3.

Table 1. Summary of the exploratory factor analysis results – residents' perceptions

Variables (Sustainable development of ecotourism...)	Loading	Eigen-value	Variable explained (%)	Reliability Alpha
Factor 1 - Sociocultural sustainability		9.90	45.65	0.88
1- Provides diverse cultural experiences, cultural exchange opportunities	0.80			

2- Improves tourists' awareness and appreciation about local traditional and cultural value...	0.77			
3- Upgrades local infrastructure, health care service, education...	0.73			
4- Makes good interaction between local resident and tourist	0.72			
5- Improves preservation activities for traditional and cultural ceremonies	0.67			
6- Builds up local resident's confidence, self-esteem, pride, and dignity	0.65			
7- Promotes the reputation of the local	0.63			
Factor 2 - Environmental sustainability		2.53	13.74	0.85
1- Promotes environmental protection and improves quality of living environment	0.90			
2- Makes opportunity for local resident actively participate in environment protection activities	0.81			
3- Increases public environmental awareness and directs local resident toward appropriate behaviors	0.70			
Factor 3 – Economic sustainability		1.04	8.00	0.82
1-Increases additional income to local residents	0.87			
2- Reinforces the local economy	0.74			
4- Diversifies the local economy	0.72			
Total variance explained: 57.387%				
KMO: 0.869; Bartlett's Test of Sphericity (Sig.): 0.000				

Table 2. Summary of the exploratory factor analysis results – residents' attitude

Factor – Residents' attitude	Loading	Eigen-value	Variable explained(%)	Reliability Alpha
		2.49	49.71	0.81
1-I am proud to participate in sustainable ecotourism development activities	0.76			
2-I am favorable to participate in sustainable ecotourism development activities	0.72			
3-I am enjoyable to participate in sustainable ecotourism development activities	0.72			
4-I think that sustainable ecotourism development is important	0.69			
5-I think that sustainable ecotourism development is necessary	0.62			
Total variance explained: 49.708%				
KMO: 0.817; Bartlett's Test of Sphericity (Sig.): 0.000				

Table 3. Summary of the exploratory factor analysis results – residents' behavioral intention

Variables	Loading	Eigen-value	Variable explained (%)	Reliability Alpha
Factor 1 - Sustainable community development		4.894	34.955	0.857
1- I am willing to participate in waste reduction, water conservation practices	0.86			
2- I am willing to join in solving security issues in the community	0.79			
3- I am willing to use eco-friendly instruments, machines and sustainable practices to improve energy efficiency	0.75			

5- I am willing to participate in and organize eco-friendly activities, events to improve tourists' awareness	0.65		
Factor 2 - Natural resources conservation		1.746	12.471
1- I am willing to support and participate in natural resources conservation activities of the local government	0.84		0.843
2- I am willing to convince other local residents to minimize negative environmental impacts of their business/work	0.76		
3- I am willing to promote and convince other local residents NOT to trade products which are made from rare animals and plants	0.63		
4- I am willing to join in solving environmental issues	0.60		
Factor 3 - Cultural tradition preservation		1.395	9.963
1- I am willing to participate in traditional events and festivals to attract more tourists	0.87		0.862
2- I am willing to participate in cultural tradition preservation activities	0.86		
3- I am willing to study and promote local historical and cultural traditions	0.67		
Factor 4 - Participation in planning and managing ecotourism development		1.00	6.450
1- I am willing to work in ecotourism enterprises where are applied sustainable practices	0.81		0.871
2- I am willing to participate in ecotourism development and planning	0.80		
3- I am willing to encourage other local residents in preventing negative impacts for sustainable ecotourism development	0.71		
Total variance explained: 60.283%			
KMO: 0.841; Bartlett's Test of Sphericity (Sig.): 0.000			

By respecifying the principal axis factoring analysis, the above extracted factors represented for residents' perceptions, attitude and behavioral intentions toward sustainable ecotourism development were statistically vigorous and appropriately summarized the data

Research hypotheses testing and structural equation modeling

At the first stage, this study conducted confirmatory factor analysis (CFA) to evaluate the adequacy of the measurement components for the proposed model. The model fit for the measurement model was good ($\chi^2 = 871.026$, $df = 439$, $RMSEA = 0.057$, $CFI = 0.914$, $IFI = 0.915$, $TLI = 0.903$). As showed in table 4, composite Reliability (CR) was calculated to assess the internal consistency of the constructs. The results indicate that the CR values ranged from 0.74 to 0.87 (0.74, 0.79, 0.82, 0.85, and 0.87), exceeding the recommended threshold of 0.70. This suggests that all constructs demonstrate satisfactory internal consistency and reliability.

The CR results further supported the reliability of the measurement model (Hair et al., 2019). All of the average variance extracted (AVE) values were significant, with high factor loadings that ranged from 0.50 to 0.66 and thus surpassed the threshold value of 0.5 (table 4). The results showed that all the indicators are statistically significant at 0.01, which supports the theoretical assignment of the indicators to each construct (Anderson & Gerbing, 1988). As a result, convergent validity was ensured. The correlations among and between the exogenous and endogenous constructs ranged from 0.36 to 0.73, which show suitable level of intercorrelation. Moreover, the squared correlation coefficients between the constructs were smaller than the AVE value of each construct. They illustrated that discriminant validity was also passed. In short, the validity and reliability of the operationalization of the latent variables in the measurement model were appropriate.

Table 4. Correlations (squared correlations), AVEs and means

	SOC	ECO	ENV	ATT	INT
SOC	1				
ECO	0.41(0.17)	1			
ENV	0.47(0.22)	0.48(0.23)	1		
ATT	0.36(0.13)	0.38(0.13)	0.43(0.19)	1	
INT	0.51(0.26)	0.50(0.25)	0.73(0.53)	0.50(0.25)	1
CR	0.87	0.82	0.85	0.79	0.74
AVE	0.51	0.61	0.66	0.50	0.50
Mean	4.38	4.46	4.34	4.28	4.34

Note: SOC= Sociocultural sustainability; ECO= Economic sustainability; ENV= Environmental sustainability; ATT= Resident’s Attitude; INT=Resident’s Intention; AVE=Average Variance Extracted; CR= Composite reliability; Mean values are based on 5-point scales; All correlations are significant at $p < 0.01$.

Structural equation modeling

With a satisfactory measurement model, the structural model was used to test the research hypotheses. The structural equation model was shown a good overall model fit. Specifically, Goodness-of-fit statistics for the structural model were $\chi^2 = 889.531$, $df = 441$, $RMSEA = 0.058$, $CFI = 0.911$, $IFI = 0.912$, $TLI = 0.900$. The model in general included the satisfactory prediction power for local residents’ attitude toward sustainable ecotourism development ($R^2 = 0.28$), and behavioral intention toward sustainable ecotourism

development ($R^2 = 0.69$). The details regarding the structural equation results are demonstrated in Table 5. Overall, the analysis revealed that all three dimensions of residents’ perceptions exerted a statistically significant and positive influence on both their attitude and their behavioral intention toward sustainable ecotourism development. Additionally, residents’ attitude was found to be a significant determinant of their behavioral intention. Accordingly, the results provided empirical supports for all seven proposed hypotheses of the study.

Table 5. Structural path estimates of the model

Hypothesis	Path	Standardized estimate	t-value	P	Support
H1a	ECO → INT	0.17	2.29	0.02	Yes
H1b	SOC → INT	0.19	2.64	0.01	Yes
H1c	ENV → INT	0.54	6.24	0.00	Yes
H2a	SOC → ATT	0.20	2.68	0.01	Yes
H2b	ECO → ATT	0.21	2.64	0.01	Yes
H2c	ENV → ATT	0.25	3.16	0.00	Yes
H3	ATT → INT	0.15	2.09	0.04	Yes

Note: SOC= Sociocultural sustainability; ECO= Economic sustainability; ENV= Environmental sustainability; ATT= Resident’s Attitude; INT= Resident’s Intention

The hypothesized effects of local residents’ perceptions on their behavioral intentions toward sustainable ecotourism development were empirically supported. Perceptions of economic ($\beta = 0.17$, $p < 0.05$), socio-cultural ($\beta = 0.19$, $p < 0.05$), and environmental ($\beta = 0.54$, $p < 0.01$) sustainability exerted positive and statistically significant influences on intention, confirming hypotheses H1a, H1b, and H1c. In addition,

all three dimensions—economic ($\beta = 0.21$, $p < 0.05$), socio-cultural ($\beta = 0.20$, $p < 0.05$), and environmental ($\beta = 0.21$, $p < 0.01$) sustainability—were found to have significant positive effects on residents’ attitude, confirming hypotheses H2a, H2b, and H2c. Moreover, the proposed relationship between residents’ attitude and their intention was also tested. The estimation results revealed that attitude demonstrated a significant posi-

tive effect on intention ($\beta = 0.15, p < 0.05$), validating hypothesis H3.

Mediation hypotheses assessment

Subsequently, the indirect impact and total impact of variables were estimated. To examine the mediating role of local residents' attitude in the relationship between their perceptions and intention, the bootstrapping technique was employed (Byrne, 2013). As reported in Table 6 and Figure 1, the results revealed

that local residents' perceptions significantly affected their behavioral indirectly through their attitude. In line with the criteria suggested by Cheung and Lau (2008), these findings provided evidences of partial mediations. Regarding the total influenced residents' behavioral intention, environmental benefits perceived by residents demonstrated the greatest total impact ($\beta = 0.58, p < 0.00$), followed by sociocultural benefits ($\beta = 0.19, p < 0.05$), and economic benefits ($\beta = 0.17, p < 0.06$).

Table 6. Estimation result of mediation effects

Hypothesis	Path	Standardized direct effect	Standardized indirect effect	Standardized total effect	P	Support (character mediation)
H4a	ECO → INT through the mediating role of ATT	0.17	0.03	0.20	0.06	Yes (Partial)
H4b	SOC → INT through the mediating role of ATT	0.19	0.03	0.22	0.05	Yes (Partial)
H4c	ENV → INT through the mediating role of ATT	0.54	0.04	0.58	0.00	Yes (Partial)

Note: SOC= Sociocultural sustainability; ECO= Economic sustainability; ENV= Environmental sustainability; ATT= Resident's Attitude; INT= Resident's Intention

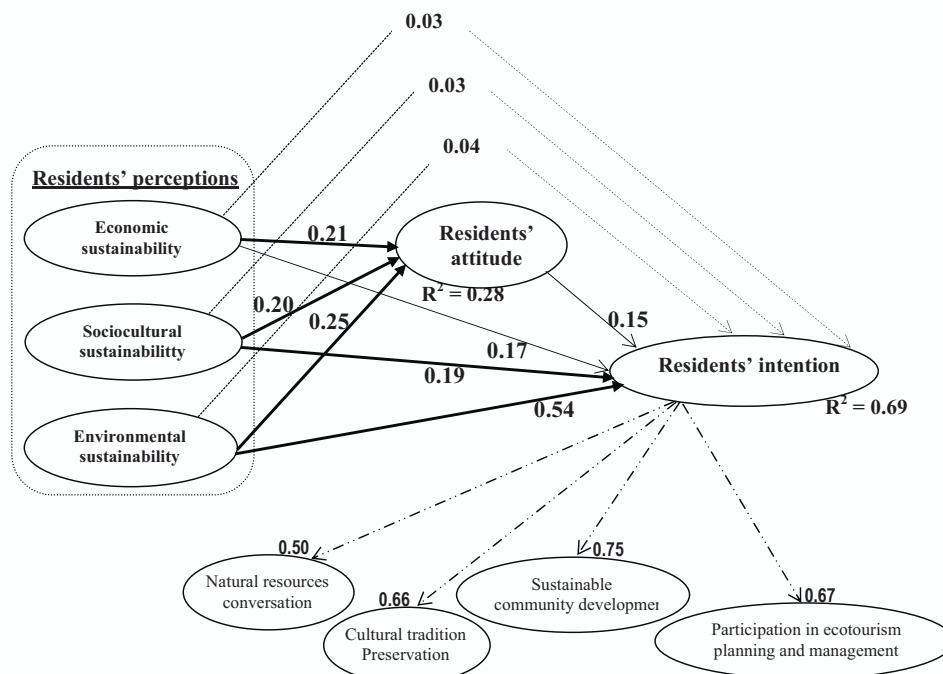


Figure 1. Structural equation model estimation

Note 1: statistically significant path coefficient at 0.01 level

Note 2: statistically significant path coefficient at 0.05 level

Note3: indirect impact

Note 4: second order factor

Note 5: Model fit indices: $\chi^2 = 889.531, df = 441, RMSEA = 0.058, CFI = 0.911, IFI = 912, TLI = 0.900$

Discussion and implications

The proposed conceptual model was an attempt to provide a comprehensive explanation of local residents' behavioral intentions toward sustainable ecotourism development. Within this context, existing academic research on residents' participation intentions remains limited, particularly when examined through the lens of specific sustainability dimensions. The proposed theoretical framework constituting residents' perceptions towards economic, sociocultural and environmental sustainability as independent variables, their attitude as mediator was demonstrated to be useful and satisfactorily predict local residents' behavioral. The hypothesized relationships among research constructs were generally supported, and subsequent results revealed statistically significant mediating effects. Overall, the findings offered a robust and integrative framework for research constructs and their relationships in local residents' behavioral intention toward sustainable ecotourism development.

Hypothesis 1a,b,c

According to Byrd et al. (2009), perceived impact of tourism on the community development was a predictor of residents' support for sustainable tourism development of a community. Besides, related research emphasized the importance of determining local residents' perception of ecotourism before implementation (Jiang, 2008; Tang et al., 2012; Muresan et al., 2016; Wu & Chen, 2016; Abeli, 2017; Haloi et al., 2017; Pineda et al., 2023). This study deeply investigated the significant determinants of local people's participation in sustainable ecotourism development through their perceptions. The results showed that their perception of environmental sustainability is much more important than economic and sociocultural aspects in contributing their intention to participate in sustainable ecotourism development. This was relevant to most of definitions stating that ecotourism emphasizes responsible practices, highlighting the conservation of natural environments (Stem, et al., 2003; Dhami et al., 2014; Sahahiri et al., 2023; Koliouška & Andreopoulou, 2023). In essence, ecotourism products sought to provide environmental education and experiences to tourists while protecting the ecological integrity of the destination (Kerimoğlu & Çıracı, 2008; Pujar & Mishra, 2020).

On the other hand, some other studies showed that culture was one of the most important attributes that significantly contributed to tourists' intention to visit ecotourism destinations (Abdurahman et al., 2016). This implied that the cultural aspect enhanced the attractiveness of the ecotourism product by expressing

and positioning the local's pride in the destination. Furthermore, ecotourism has been showed to have a positive impact on the local economy. Ecotourism generated income for local communities through the provision of tourism-related products and services. These benefits significantly motivated the local to practice sustainability (Chirenje, 2017). In a developing country like Vietnam, some ecotourism sites simply developed tourism service from the nature and culture of the destination in the context of limited perception of conservation and development of these tourism resources. Moreover, most people may think that sustainable practices required large investments, leading to delays in implementing sustainable development practices. They need to better understand sustainable ecotourism development, which can be initiated step by step in their actions. This strategy pursues long-term economic efficiency while ensuring environmental responsibility and improving sociocultural value of tourism destination.

Existing literature have indicated that local residents' intention in sustainable ecotourism development is a multidimensional construct (Lai & Nepal, 2005; Haloi et al., 2017; Wu & Chen, 2016). However, most of studies have considered or combined them into a common variable while investigating the formation and determinants (Choi & Murray, 2010, Vargas-Sanchez et al., 2011, Nunkoo & Ramkissoon, 2011; Ven, 2015; Morales et al., 2018; Landra et al., 2018; Khalid et al., 2019; Castillo-Vizuete et al., 2024; Jiang & Tian, 2025; Mussina et al., 2025). The current study filled this gap and identified sustainable behavior intention as second-order variable through four dimensions (natural resources conservation, cultural tradition preservation, sustainable community development, and participation in planning and managing ecotourism development). Figure 1 showed the rank order contribution of each dimension in local residents' behavioral intention in the Mekong Delta, Vietnam. Within the concept of local residents' intentions, these four dimensions ranged from simple to complex levels, emphasizing the importance of local residents' participation in sustainable development strategies. In particular, participation in ecotourism planning and management is the most difficult task of sustainability behavior. Therefore, local residents expressed their lowest intentions in these practices (in mean score value), requiring professional competency in proposing sustainable strategies for ecotourism industry. In a developing country, it is found that key factors leading to the low participation of local residents include limited financial resources, insufficient knowledge and skills related to tourism services, hospitality, and business operations, as well as a lack

of support from government and stakeholders. These barriers hindered the effective participation of local communities in ecotourism and undermined progress toward sustainable development goals (Bhatta & Joshi, 2023). While participation in ecotourism planning and management of local residents is vital for its long-term success of ecotourism development, this complex process requires strategic planning, meaningful commitment to addressing various needs and viewpoints of communities.

Hypothesis 2a,b,c

This study additionally evaluated the impact of local people's perceptions on their attitude toward sustainable ecotourism development. The results indicated that perceptions of environmental, economic, and sociocultural sustainability had significant influences on attitude of local communities. Specifically, when residents perceived ecotourism as contributing positively to environmental conservation, economic opportunities, and the preservation of sociocultural values, they were more likely to adopt favorable attitude toward sustainable development. Similarly, earlier empirical studies in the tourism industry have also demonstrated that positive perceptions are key predictors of supportive community attitude (Li et al., 2014; Kim et al., 2015; Li et al., 2018; Landra et al., 2018; Peters et al., 2018). Furthermore, several prior studies have simply assessed descriptive analysis of residents' perceptions and attitude, as well as explored the correlations between these variables. In contrast, a survey conducted in a national park reported no statistically significant relationship between residents' perception of environmental benefits and their attitude toward sustainable ecotourism development (Partiro et al., 2023). This impact may vary depending on contextual factors such as location, type of activity, level of community involvement, or previous experiences with sustainable tourism development. Therefore, the current study attempted to contribute to the literature through empirical evidence in the context of sustainability ecotourism development in a developing country as Vietnam.

In specifically, this study emphasized that environmental aspect showed the most important contribution to residents' attitude because natural resources are the primary factors in developing ecotourism products. From the perspective of local communities, the environmental benefits associated with ecotourism promote greater interest, pride, and a sense of responsibility for sustainable development. Then, the perception on economic benefits of ecotourism created better attitude than the sociocultural aspect. Practically, the majority of local residents considered tourism as a tool for economic development; therefore,

they show a positive attitude toward sustainable development strategies (Gursoy et al., 2002; Andereck & Vogt, 2000). Economic efficiency represented the success of the business, was easy to evaluate and promote, and brought a better attitude in their participation. In the tourism field, the literature has demonstrated a link between residents' attitude and their perception of positive impacts within the local community. It was discussed that tourism development come with economic benefits in exchange for social and environmental impacts (Harril, 2004). Besides, tourism development can play a significant role in ensuring effective conservation of natural resources and the environment, strengthening local cultural identities and enhancing the overall well-being of local people (Baloch et al., 2023).

Within the framework of sustainable ecotourism development, this study proposed that enhancing local residents perceived benefits across three key dimensions—environmental, socio-cultural, and economic sustainability—can positively influence their attitude toward sustainable ecotourism initiatives. When local communities recognized meaningful benefits in these aspects, they were more likely to adopt supportive and proactive attitude toward sustainable tourism practices. In particular, environmental benefits should be emphasized alongside socio-cultural and economic gains, as they played a critical role in fostering a coherent and consistently positive local attitude toward ecotourism development. This integrated approach was consistent with the principles of sustainability and highlighted the comprehensive perceptions of local residents in sustainable ecotourism development.

Hypothesis 3

This study further established local residents' attitude as a significant determinant of their intention toward sustainable ecotourism development. The role of attitude as a predictor of behavioral intention has been extensively examined in tourism research, with numerous studies confirming that fostering favorable attitude among local residents can substantially enhance their willingness to engage in tourism-related initiatives (Nunkoo & Gursoy, 2012; Wu & Chen, 2016; Martin et al., 2017; Moghavvemi et al., 2017; Landra et al., 2018; Shen et al., 2019; Xu et al., 2022). Consistent with this body of work, the present study made a distinct contribution by providing empirical evidence specifically within the context of sustainable ecotourism in the Mekong Delta, Vietnam, thereby extending the applicability of these theoretical insights to a unique geographical and cultural setting.

The findings demonstrated that residents' intentions were not only shaped by their overall attitude but

also manifested across four interrelated dimensions: (1) the conservation of natural resources, reflecting the recognition of ecological preservation as central to ecotourism; (2) the preservation of cultural traditions, indicating the value placed on safeguarding local heritage; (3) sustainable community development, which underscores the aspiration for long-term socio-economic benefits; and (4) active participation in the planning and management of ecotourism development, highlighting the importance of inclusive governance and local empowerment. By identifying and empirically validating these dimensions, the study offered deeper insights into how attitude translate into specific forms of engagement, thereby informing more targeted strategies to foster community involvement in sustainable ecotourism initiatives.

Hypothesis 4a,b,c

Finally, to examine the mediating role of local residents' attitudes in the relationship between their perceptions and intentions toward sustainable ecotourism development, the bootstrapping technique was employed (Byrne, 2013). The analysis results of the indirect effect indicated that both direct and indirect effects were statistically significant. These provided evidences of partial mediations. Accordingly, the findings demonstrated that local residents' perceptions had direct impact on their intention to engage in sustainable ecotourism development, which was partially mediated by their attitude. Notably, the results revealed that perceived environmental benefits of local people had the strongest overall effect among the variables examined. This finding reinforced support for the first hypothesis and emphasized the critical role of perceived environmental benefits in sharpening residents' intention to participate in sustainable ecotourism initiatives.

Within the context of the ecotourism, the environmental benefits perceived by local residents have become the most influential determinant in shaping both their psychological and behavioral responses. This finding highlighted the central role of environmental considerations in sustainable ecotourism development and reflected the unique nature of ecotourism as a tourism model that fundamentally depends on the conservation and appreciation of natural environments. Furthermore, the emphasis on environmental sustainability is consistent with the long-term interests of local residents in maintaining the ecological integrity of their communities, which is often threatened by unsustainable tourism practices. Perceptions of tangible environmental benefits—such as improved conservation efforts, enhanced local environmental quality, and increased awareness of ecological is-

—can foster a sense of pride, stewardship, and ownership among residents. These emotions, in turn, promote greater community involvement and support for sustainable ecotourism development. Overall, the prominent role of perceived environmental benefits in shaping residents' attitudes and behavioral intentions highlights the need for policymakers, planners, and tourism developers to prioritize environmental protection in sustainable ecotourism development strategies.

Conclusion and limitations

The current study primarily sought to explore various levels of local residents' behavioral intention toward sustainable ecotourism development in the Mekong Delta, Vietnam, and to identify the key determinants influencing these intentions. The dimensions of perceptions, attitudes, and behavioral intentions were adopted from established literature and used as constructs to examine their relationships within the proposed research model. The attributes of these three concepts were determined and validated through both qualitative and quantitative research methods. The proposed model involving such attributes and other related variables was developed to identify the formation of local residents' behavioral intention toward sustainable ecotourism development. Additionally, the current study contributed to the literature and identified sustainable behavioral intention as second-order variable through four dimensions (natural resources conservation, cultural tradition preservation, sustainable community development, and participation in planning and managing ecotourism development). Overall, the results showed that all three aspects of residents' perceptions had significant and positive effects on both their attitude and intention. Furthermore, residents' attitude was also identified as a significant predictor of behavioral intention. These findings provided empirical support for all proposed hypotheses, confirming both the direct effects of perceptions on intention and the mediating role of attitude in this relationship. These results highlighted the important role of perception factors in shaping community engagement in sustainable ecotourism strategies and reinforced the need for participatory and inclusive planning processes that address environmental, socio-cultural and economic aspects. Especially, the results underscored the central importance of environmental considerations in the development of sustainable ecotourism and reflects the distinctive character of ecotourism as a tourism model inherently reliant on the conservation and appreciation of natural environments. By adopting a multidimensional approach and focusing on the specific context of sustainable eco-

tourism, this study adds depth to the existing body of knowledge and offers insights that can inform future planning and policy-making processes.

This study is limited by its exclusive focus on local residents' perspective, which constrains the generalizability of findings to other stakeholder groups in ecotourism. The data were specific to a single geographical region (the Mekong Delta, Vietnam), a single tourism category (ecotourism), and one stakeholder group (local residents). Future research could replicate the study with other stakeholders to enable cross-group comparisons, extend the investigation to different regions for destination-based comparisons, and track potential variations over time. Especially, further study research should include local residents who are not currently employed in ecotourism-related activities. While this study focused on individuals directly involved in ecotourism, residents outside the sector may hold different perceptions and intentions toward sustainable ecotourism development. Including this group would provide a more comprehensive understanding of community-wide support and help identify additional factors influencing residents' future participation and behavioral intentions. Given the dynamic nature of ecotourism, the identified attributes will require periodic updates; thus, further qualitative research is recommended to capture emerging trends and evolving perceptions.

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(2) The following set of statement relates to Attitude toward sustainable ecotourism development. Please indicate your level of agreement with the following statements using the corresponding scale: 1=strongly disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly agree

No.	Attitude toward sustainable ecotourism development	Level of agreement				
		1	2	3	4	5
1	I am proud to participate in sustainable ecotourism development activities	1	2	3	4	5
2	I am favorable to participate in sustainable ecotourism development activities	1	2	3	4	5
3	I am enjoyable to participate in sustainable ecotourism development activities	1	2	3	4	5
4	I think that sustainable ecotourism development is important	1	2	3	4	5
5	I think that sustainable ecotourism development is necessary	1	2	3	4	5

(3) The following set of statement relates to Behavioral intention toward sustainable ecotourism development. Please indicate your level of agreement with the following statements using the corresponding scale: 1=strongly disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly agree

No.	Perceptions of Sustainable Ecotourism Development	Level of agreement				
		1	2	3	4	5
I	Natural resources conservation					
1	I am willing to support and participate in natural resources conservation activities of the local government	1	2	3	4	5
2	I am willing to convince other local residents to minimize negative environmental impacts of their business/work	1	2	3	4	5
3	I am willing to promote and convince other local residents NOT to trade products which are made from rare animals and plants	1	2	3	4	5
4	I am willing to join in solving environmental issues	1	2	3	4	5
II	Cultural tradition preservation					
1	I am willing to participate in traditional events and festivals to attract more tourists	1	2	3	4	5
2	I am willing to participate in cultural tradition preservation activities	1	2	3	4	5
3	I am willing to study and promote local historical and cultural traditions	1	2	3	4	5
III	Sustainable community development					
1	I am willing to participate in waste reduction, water conservation practices	1	2	3	4	5
2	I am willing to join in solving security issues in the community	1	2	3	4	5
3	I am willing to use eco-friendly instruments, machines and sustainable practices to improve energy efficiency	1	2	3	4	5
4	I am willing to participate in and organize eco-friendly activities, events to improve tourists' awareness	1	2	3	4	5
IV	Participation in planning and managing ecotourism development					
1	I am willing to work in ecotourism enterprises where are applied sustainable practices	1	2	3	4	5
2	I am willing to participate in ecotourism development and planning	1	2	3	4	5
3	I am willing to encourage other local residents in preventing negative impacts for sustainable ecotourism development	1	2	3	4	5