

INTEGRATED COMMUNITY-BASED TOURISM MANAGEMENT FOR SUSTAINABLE DEVELOPMENT: A CASE STUDY OF COASTAL GEOSITES IN SOUTHERN THAILAND

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Abstract: Community-Based Tourism (CBT) is acknowledged as a viable strategy for promoting sustainable tourism development, particularly in ecologically vulnerable coastal and geosite locations. The expansion of coastal tourism in Thailand has fostered economic advancement while concurrently causing environmental deterioration and social issues, underscoring the need for coherent, community-focused management approaches. This study aims to develop a comprehensive CBT management framework for coastal geosites in Southern Thailand and to examine how CBT management components influence tourist behavior, specifically tourist attitudes and behavioural intentions. A mixed-methods strategy was employed in Takrob Subdistrict, Chaiya District, Surat Thani Province. Qualitative data were collected through in-depth interviews and focus group discussions with community leaders, tourism operators, and local stakeholders to identify key management components, while quantitative data were obtained from 400 tourists using standardised questionnaires. Exploratory factor analysis, confirmatory factor analysis, and structural equation modelling were applied to evaluate the proposed framework and examine causal relationships. The results identified six core components of coastal community-based tourism management: environmental sustainability, infrastructure provision, accessibility and safety, community participation, service quality, and coastal tourism assets. The findings indicate that community participation, service quality, and tourism assets positively influence tourist perceptions, which strongly affect behavioural intentions. These results highlight the importance of active community participation and high-quality tourism experiences in fostering sustainable tourism development and the long-term sustainability of coastal geosite tourism destinations.

Keywords: Community-Based Tourism, coastal tourism, tourist behavior, community participation, sustainable tourism development

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INTRODUCTION

Sustainable tourism is a subfield of sustainable development that has gained increasing attention on the global agenda. Understanding tourist behavior and tourism processes is a critical first step toward empowering local communities to make informed and appropriate decisions regarding tourism development (Cole, 2006). Nevertheless, in some regions, community participation in tourism planning and management remains limited due to structural and institutional constraints (Tosun, 2000). CBT fundamentally characterized by the active engagement of local communities in the planning, implementation, and distribution of tourism benefits. Offers an innovative and participatory framework that positions local communities at the core of tourism development (Jackson, 2025). These initiatives have emerged in response to the growing recognition of the importance of inclusive and equitable tourism practices (Dangi & Petrick, 2021). CBT management includes planning, organizing, leading, coordinating, and controlling, with every process emphasizing community member participation in planning, decision-making, development, implementation, benefit-sharing, and evaluation (Witchayakawin et al., 2022).

However, CBT in different parts of the world carry different meanings, by virtue of their different social, cultural, political, and economic context, coupled with other influencing factors such as ethnic make-ups, religious beliefs, and tourism objectives (Boonratana, 2010). There are many factors influencing the success of this model, such as economic and social aspects, including poverty reduction driven by local initiatives (bottom-up). This approach tends to be more sustainable, grow more rapidly, and positively impact the local economy compared to top-down models fully supported by external organizations (Zapata et al., 2013). There are study on CBT in many countries around the world such as Nicaragua (Zapata et al., 2013), Iran (Ghayoumi et al., 2023), Bangladesh (Mia et al., 2024), Taiwan (Liang et al., 2024), including Thailand (Arkarapoti Wong & Chindapol, 2023; Boonratana, 2010; Witchayakawin et al., 2022).

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In Thailand, rapid tourism growth has boosted revenue but also caused environmental and social issues, leading to a shift toward sustainable tourism (Uddin et al., 2024). CBT was introduced to empower communities, promote participation, and ensure fair benefits. Its success relies on abundant resources, strong leadership, community engagement, fair benefit sharing, and external support (Arkarapitiwong & Chindapol, 2023; Witchayakawin et al., 2022). However, a key weakness in Thailand's CBT development is the limited understanding of tourist behavior and travel motivations. Addressing these gaps is essential for enhancing community participation, improving management strategies, and promoting truly sustainable tourism outcomes (Charoensit et al., 2022). Thai government has programs intended to improve the economy at the local level and for poverty reduction, which can be achieved with CBT (Witchayakawin et al., 2022). Among these, homestay tourism has become a key policy instrument to empower communities and generate additional income. However, not all communities have achieved success, prompting the need to investigate the factors influencing effective homestay management and sustainability (Phunnarong, 2021).

Southern peninsular Thailand, particularly along the coast, is considered one of the world's leading marine tourism destinations. There are a lot of tourist attractions, beautiful and unique natural resources, especially marine resources, beaches, and islands. However, numbers of tourists come to coastal recreation areas, and the associated development is not well managed, there can be extremely negative effects on coastal environment (Nara et al., 2014). Khunnikom et al., 2021 reported CBT management during the Coronavirus 2019 pandemic in five communities of five provinces along the Andaman coast of Thailand. The data were collected via online in-depth interviews and online focus group discussions. The results revealed that the CBT management during the Coronavirus 2019 pandemic was based on the communities' cultural and natural resources. The tourism operation was focused on building confidence and safety for tourists.

Surat Thani, known as "the province of a thousand islands" many of which lay off the coast in the Gulf of Thailand. There are diverse activities and lifestyles, along with unique cultural characteristics of Thai living, making it an attractive destination for tourists. Generally, the coastline of communities in this area is flat and low-lying. Most villagers engage in fishing and agriculture. Lelit Village in Surat Thani serves as a prime example of a CBT site with strong potential, yet it has not fully developed into a sustainable tourist destination due to a lack of effective marketing and technological integration. Empowering local leaders to become digital leaders and connecting them with centralized knowledge hubs such as the SCBT Lab can transform remote CBT sites into sustainable tourism destinations in the long term (Sapkota et al., 2024).

This study aims to explore integrated CBT management as a strategic approach to achieving sustainable development in coastal geosites of southern Thailand, with a particular focus on local participation, digital leadership, and environmental stewardship. To contextualize this inquiry, the following section provides a comprehensive review of relevant literature on CBT frameworks, sustainability principles, and coastal tourism governance.

LITERATURE REVIEW

Community-Based Tourism and Sustainable Development

Tourism that is good for the environment and the community people all around the world already realize that CBT is a good way to promote sustainable development, especially in rural areas. Cognitive behavioral therapy puts a lot of emphasis on local ownership, community involvement, and equitable distribution of benefits. These factors cultivate an economy that is inclusive and protects cultural heritage (Goodwin & Santilli, 2009). UNWTO (2013) acknowledged that CBT empowers local communities by including them in the planning and management of tourism activities. This ensures that tourism develops in a manner beneficial to the local population. Data from Southeast Asia indicates that CBT enhances community resilience and sustainability. Phuong et al. (2022) investigated CBT in Vietnam's karst plateau and determined that the incorporation of ecological, cultural, and socio-economic elements increases the appeal of both the community and the destination. These findings validate the premise that CBT not only promotes tourism but also aids in the advancement of rural communities in multiple dimensions. CBT in Thailand has emerged as a sustainable alternative amid the rapid expansion of mass tourism. Mae Kampong village, Chiang Mai Province serves as a successful example, where favorable geography, external support, and visionary leadership have been key factors driving CBT's success (Kontogeorgopoulos et al., 2014). In the Sam Chuk traditional market, participation in decision-making, local ownership, collective responsibility, resource sharing, leadership and management, authenticity, and distinctiveness have a statistically significant impact on CBT success. In contrast, success in the Klong Suan old market is determined by participation in decision-making, local ownership, collective responsibility, leadership and management, partnerships and external support, authenticity, and distinctiveness (Nitikasetsoontorn, 2015). The case of Huai Nam Guen village in Chiang Rai illustrates how CBT can align with sustainable tourism through community participation, effective resource management, and behavioral change, underscoring the need to influence community behavior to ensure long-term success (Sitikarn, 2021). A sustainability analysis of CBT in Bann Peuk, Chonburi Province, highlighted four key dimensions for successful management: economic, social, environmental, and managerial. The economic and social dimensions enhanced residents' quality of life, with the social aspect supporting economic diversity and unique local activities. The environmental dimension provided vital resources for tourism promotion, while effective governance ensured integration and sustainability across all areas. This case illustrates a model of sustainable CBT management applicable to other communities in Thailand (Phunnarong, 2021).

Stakeholder Engagement and Destination Governance in CBT Models

Destination governance in CBT is fundamentally dependent on stakeholder involvement. Šambronská et al. (2024) underscore that collaboration among local governments, the commercial sector, and community members is essential for sustainable destination management. Their research emphasizes that cross-sectoral integration improves planning efficiency

and aligns tourism development with local values and expectations. This idea of working together is especially important for coastal CBT, where many different interests come together. Witchayakawin et al. (2022) investigated stakeholder participation in CBT across Phitsanulok and Sukhothai Provinces using qualitative case studies. Data from 35 key informants across nine villages revealed diverse participation levels and governance approaches. Leaders, homestay owners, and CBT operators showed strong engagement, with citizen-control participation evident in both provinces, while consultation appeared only in Sukhothai. Distinct attitudes toward volunteerism and youth involvement reflected differing tourism orientations, suggesting the need to develop context-specific CBT models such as gastronomic and creative tourism. Their findings indicate that inclusive stakeholder participation and adaptive governance are critical for CBT success. Strong leadership, open consultation, and collaboration among diverse actors enhance collective decision-making and ensure tourism aligns with community goals. Such engagement supports equitable benefit sharing and promotes sustainable, locally driven development.

Tourist Perception and Loyalty in Coastal and Geosite Tourism

To get people to come back and be loyal, it's crucial to know how tourists see things, especially in coastal and geosite locations. Chamboko-Mpotaringa & Tichaaawa (2023) studied how domestic visitors feel about digital marketing platforms and discovered that consumers are considerably happy and more likely to come back if they are active in digital marketing. Their research demonstrates how people feel about items they see online could influence the loyalty loop in travel.

Hung & Khoa (2025) looked into how mobile augmented reality (AR) influences eco-friendly tourism. They found that AR made travelers' green experiences much better and made them less likely to come back. These results suggest that employing immersive technology to explain geosites can make people feel more connected to a location. This study shows that tourists are more likely to come back if geosites have better digital interfaces and more instructive activities. This is very important for keeping tourism along the shore thriving.

Digital and Smart Tools for Sustainable Coastal CBT

Integrating smart technologies into CBT enhances both operational management and tourist experience. Vu et al. (2025) conducted a bibliometric analysis on global rural tourism digital transformation, revealing a significant rise in research and practice involving AR, VR, and mobile apps that preserve local narratives and improve service delivery. Their results demonstrate that digital innovation is becoming a big part of tourists' plans for rural and coastal places.

In 2025, Solstrand-Lariviere and Gressness also looked at how digital technologies could help fishermen act in a way that is good for the environment. Travelers can be more eco-friendly by using applications that track fish in real time and smart booking systems. You might utilize similar ideas in geosite tourism, where mobile apps could help people make their way along geological trails and get them to care about the environment.

Empowering Community in Sustainable Tourism through Capacity-Building

Empowering local communities is essential for sustained community-based tourism. Sutrisno et al. (2024) examined post-mining village transitions in Indonesia and discovered that empowerment substantially facilitated economic recovery. While not directly associated with visitor behavior, empowerment served as a mediating factor in enhancing the long-term sustainability of tourism. Handiman et al. (2024) employed PLS-SEM to investigate community empowerment in rural Indonesia, concluding that sustainability performance and entrepreneurial orientation are significantly influenced by government support and social capital.

These findings underscore the imperative of training, leadership development, and collaborative planning to empower communities in the effective management of tourism assets, especially in vulnerable coastal ecosystems.

Comparative Case Studies of Coastal Geosite Tourism Worldwide

In 2023, Arinta et al. conducted a study on the development of integrated ecotourism at Sipelot Beach, Indonesia, which revealed that participatory approaches can enhance the resilience of the economy and the environment. This model shows how coastal geosites may benefit from planning that includes all parties and protects history. A recent bibliometric study of trends in mangrove ecotourism found that a growing number of scholars want to gain insight into how to manage coastal wetlands (Aji et al., 2024). The study showed that for ecotourism to be successful, it needs to protect the environment, promote biodiversity, and create jobs. Examples from throughout the world illustrate that sustainable geosite tourism should adopt a socio-ecological systems approach that includes local knowledge, ecosystem services, and flexible governance.

Coastal and Geosite Tourism as a Sustainable Strategy

Coastal and geosite tourism has become a smart way to achieve sustainable development, especially in places with a lot of natural and geological resources. Coastal areas are frequently home to a wide range of plants and animals, traditional ways of life, and cultural heritage. This makes them great for tourists but also makes them vulnerable to damage to the environment (Hall, 2001). Coastal tourism that is well-managed can create jobs in the area, raise awareness of environmental issues, and encourage investment in infrastructure and conservation activities (UNWTO, 2018). Geosite tourism is a type of geotourism that focuses on places that are important to geology, such as rock formations, fossil sites, karst landscapes, and coastal landforms. This kind of tourism puts a high value on protecting geodiversity and teaching people through their participation, which is very much in line with the goals of sustainable tourism (Dowling & Newsome, 2010). Geotourism promotes caring for the environment, learning about other cultures, and benefits for the community, especially when it is part of participatory models like CBT.

Case studies in Southeast Asia show that geosite tourism works best when the community is involved. For example, Arinta et al. (2023) found that getting local stakeholders involved in setting up coastal ecotourism at Sipelot Beach in Indonesia was good for the health of the community and the ecosystem. Phuong et al. (2022) also showed that geosite tourism in the Dong Van Karst Plateau in Vietnam helped the economy diversify, preserve culture, and stay competitive in the long run when local populations were actively involved in managing the sites. There are a number of diverse geosites and marine scenes in Surat Thani and other coastal areas of Thailand that are perfect for eco-friendly tourism. But it's really vital to have integrated management, which means getting the community involved, safeguarding the environment, and spending money on infrastructure (Jeaheng et al., 2025). Preliminary exploration of coastal areas indicates that Tambon Takrop possesses strong potential for ecotourism development that minimizes environmental impacts. Although accessibility remains limited, the presence of mangrove forests and natural canal systems provides opportunities for geotourism activities that integrate ecological conservation with community engagement. This observation reinforces the principle that coastal and geosite tourism should be designed as community-anchored and place-based initiatives to ensure long-term sustainability.

Also, the growth of coastal and geosite tourism is in line with a number of Sustainable Development Goals (SDGs), such as SDG 11 (Sustainable Cities and Communities), SDG 12 (Responsible Consumption and Production), and SDG 14 (Life Below Water) (UNESCO, 2022). When done in a way that is directed by the community, geosite tourism not only makes money but also teaches people about the environment and passes on information from one generation to the next.

It is very important to set up inclusive governance structures, give local populations chances to grow their skills, and combine scientific information with traditional ecological knowledge in order to make sure that things will last for a long time. This perspective is reinforced by evidence from the Muara Sibandang Geosite within the Toba Caldera Geopark, Indonesia, where community participation in geotourism remains largely superficial and confined to consultation, thereby limiting sustainable outcomes. These findings underscore the need for inclusive, capacity-building, and participatory governance models that enhance stakeholder collaboration and support sustainable tourism development (Simarmata et al., 2025).

MATERIALS AND METHODS

This study employed a mixed-methods design integrating qualitative exploration and quantitative modeling to develop an integrated CBT management framework for coastal community tourism in Takrob Subdistrict, Chaiya District, Surat Thani Province, Thailand. 1) Research design: the study was conducted in three phases. The qualitative phase involved in-depth interviews and focus group discussions with local stakeholders, community leaders, tourism entrepreneurs, and visitors to identify key issues and potential for coastal CBT development. Data were transcribed, categorized, and thematically analyzed to extract initial variables. The quantitative phase used structured questionnaires to validate these variables among tourists and to test relationships among CBT management components, tourist attitudes, and behavioral intentions. The integration phase synthesized both sets of findings to develop an applied CBT management model. 2) Instrument development and data collection: questionnaire items were derived from theoretical concepts and literature on CBT and sustainable tourism. Content validity was confirmed by three experts using the Item-Objective Congruence (IOC) method, with an acceptance threshold of 0.67. The instrument's reliability was established through a pilot test ($n = 30$), where Cronbach's alpha values exceeded 0.70. Data were collected from 400 participants using purposive sampling. 3)

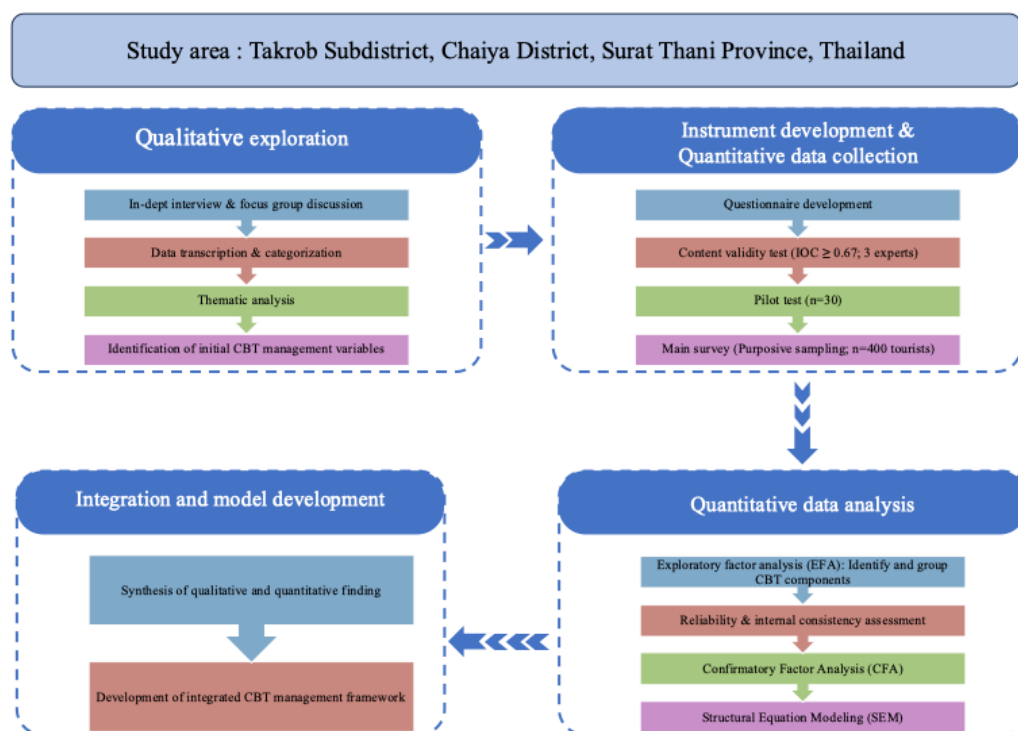


Figure 1. Overview of the mixed-methods research design for integrated community-based tourism (CBT) management

Data analysis: The data were analyzed using both exploratory and confirmatory approaches to identify and validate the core components of community-based tourism management. The exploratory factor analysis (EFA) helped to group related variables into coherent factors, confirming that the sample and measurement items were appropriate for factor analysis.

The reliability of all constructs was high, indicating strong internal consistency. Confirmatory factor analysis (CFA) and structural equation modeling (SEM) were subsequently applied to verify the relationships among the variables and assess the goodness of fit of the proposed model. The results indicated that the overall model demonstrated acceptable fit and validity, confirming that the identified factors were both theoretically and empirically sound.

All participants were informed about the research objectives and provided voluntary consent before participating in the study. The collected data were kept strictly confidential and used exclusively for academic purposes. An overview of the overall research design and methodological framework is presented in Figure 1.

RESULTS AND DISCUSSION

Identification of Key Components in Coastal CBT Management

The findings from this study, derived from qualitative research, literature review, and focus group discussions with local communities and key stakeholders, revealed the essential components of coastal community-based tourism (CBT) management. The analysis integrated perspectives from tourism practitioners, local leaders, and residents to identify the elements that contribute to effective and sustainable tourism development in coastal areas.

The results demonstrated that tourism potential in coastal communities can be categorized into eight interrelated components that collectively shape the foundation of an integrated CBT management framework. These include:

- (1) the potential of natural and cultural tourism resources, reflecting the diversity and uniqueness of local attractions;
- (2) the potential for facility management, emphasizing infrastructure readiness and the provision of basic amenities;
- (3) the potential for service provision and interpretation, ensuring quality experiences and cultural understanding for visitors;
- (4) the potential for accessibility and connectivity, referring to convenient transportation and access to tourist sites;
- (5) the potential for tourist safety, highlighting preparedness and risk management;
- (6) the potential for environmental impact management, focusing on sustainable practices that minimize ecological disruption;
- (7) the potential for community participation, which strengthens local ownership and shared benefits; and
- (8) the potential for tourism governance and management, addressing coordination among stakeholders and long-term planning.

These eight components (Figure 2) provide a comprehensive structure for understanding and managing coastal community tourism in a sustainable and participatory manner. They align with the principles of community-based tourism, which emphasize the integration of environmental conservation, cultural preservation, and socio-economic benefits for local residents.

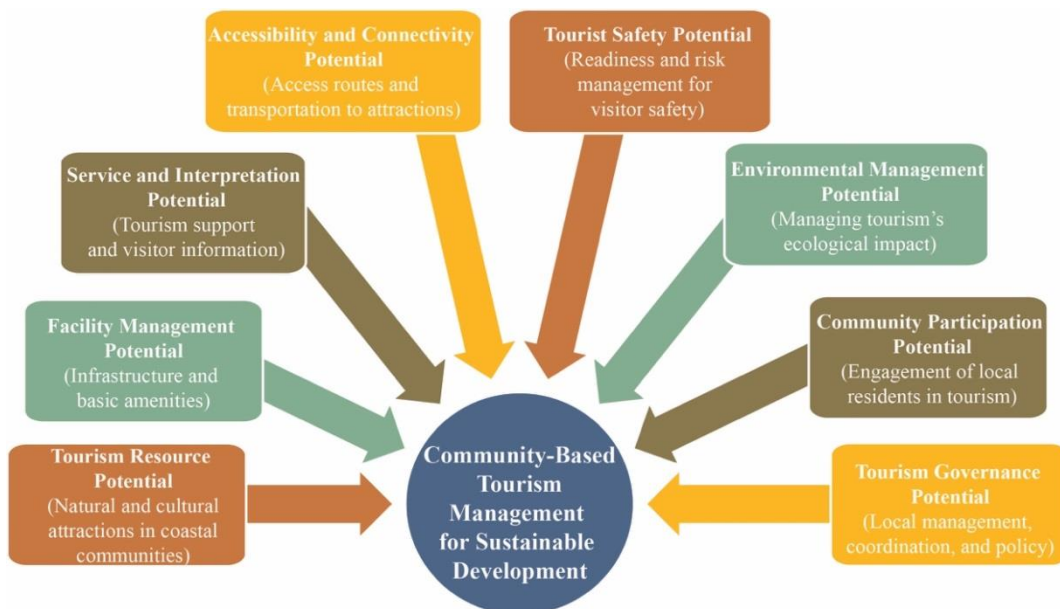


Figure 2. Eight key components of Integrated CBT management for sustainable development

Tourist Demographic Profile

The descriptive results from the quantitative survey revealed the demographic characteristics of tourists visiting coastal communities. Most respondents were female (57.5%), and the largest age group was between 21–25 years (33.3%). The majority held a bachelor’s degree (69.3%) and had an annual income below 100,000 baht (20.8%). Students represented the largest occupational group (36.5%) (Figure 3A).

In terms of travel behavior, most respondents had visited coastal communities two to three times per year (36.5%), typically traveling with family members (46.0%) for two to three days (51.7%), spending between 2,001–3,000 baht per trip (32.0%). These findings suggest that the primary tourist group comprises young adult travelers who seek affordable, short-duration, and family-oriented experiences in coastal community destinations (Figure 3B).

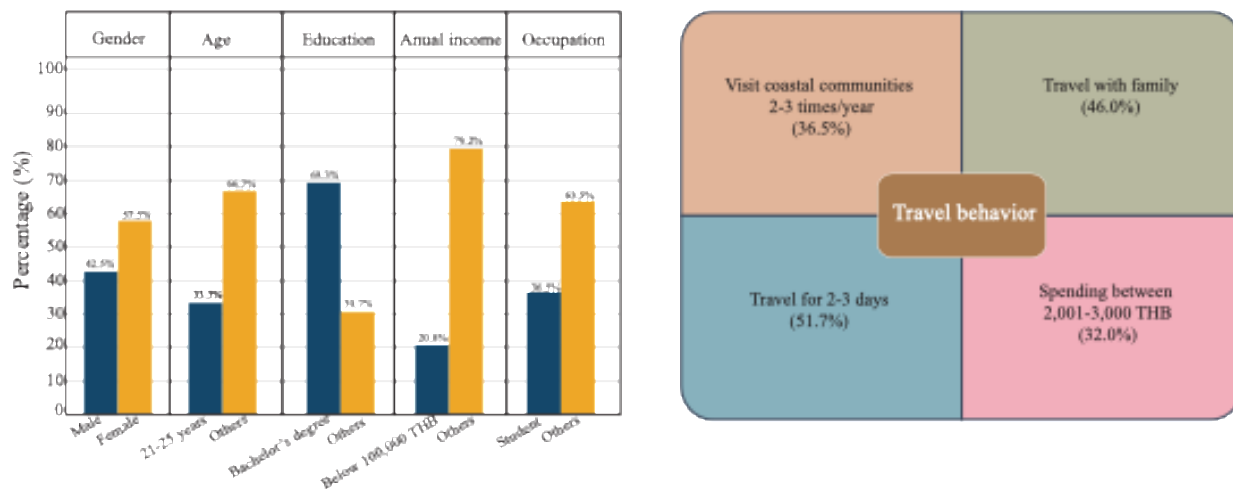


Figure 3. Demographic characteristics and travel behavior patterns of tourists in coastal community destinations

Integrated CBT management components

Figure 4 presents the integrated CBT management framework for coastal tourism areas, comprising six key components identified and validated through the quantitative assessment. The framework highlights environmental sustainability and management, facility provision and infrastructure, accessibility and tourist safety, community participation and engagement, service quality and ancillary support, and coastal tourism resource development as the principal domains shaping effective coastal CBT management. Collectively, these components provide an applied structure for evaluating how management practices in coastal communities contribute to tourists’ perceptions and subsequent behavioral outcomes, and they were therefore incorporated into the structural model to examine their effects on tourist attitude and behavioral intention.



Figure 4. Integrated CBT management for coastal community tourism areas Components

Exploratory factor analysis (EFA)

EFA is a method of looking for and finding common factors so that travelers can get the parts they want. The research showed that there were still 40 variables left out of the initial 51, and that 6 components may be combined. Bartlett's test of Sphericity can be used to prove that the correlation coefficients are not equal to zero, which means they are statistically significant. The Kaiser-Meyer-Olkin (KMO) measure of how good the sample was came out to be .965 and $p < .001$. The eigenvalues were more than 1, and the total percentage of variance was 69.768. The Cronbach's alphas for all parts were between 0.914 and 0.952, which is more than 0.7.

Confirmatory Factor Analysis (CFA)

The CFA was conducted using AMOS version 24 to assess the adequacy of the measurement model and the overall model fit. The goodness-of-fit indices indicated that the model was acceptable ($\chi^2/df = 3.470$, $\chi^2 = 2515.564$, $df = 725$, $p < .001$, $RMSEA = 0.079$, $CFI = 0.885$, $NFI = 0.846$), suggesting that the hypothesized structure fits the observed data reasonably well. All latent constructs demonstrated standardized factor loadings above 0.50 across their respective observed variables, meeting the threshold recommended by Hair et al. (2010). The normality test of the data distribution, analyzing skewness and kurtosis, found that skewness values range from -1.053 to -0.452 and kurtosis values range from -1.493 to 2.074 . The normality test results indicate that the data set is acceptable, as the values are between -3.00 and $+3.00$ (George & Mallery, 2010). The square root of the average variance extracted (AVE) is greater than the construct reliability (CR), confirming that each item is empirically consistent and accurate (Fornell & Larcker, 1981). The corrected item-total correlation for all six components is detailed in Table 1. 452 and kurtosis values between -1.493 and 2.074 . The results of the normality test of the data distribution fall between -3.00 and $+3.00$, indicating that this study's dataset is acceptable and can be used for further analysis (George & Mallery, 2010). The square root of the average variance extracted (AVE) is greater than the construct reliability (CR), confirming that each item is empirically consistent and accurate (Fornell & Larcker, 1981). The corrected item-total correlation of the eight components is detailed in Table 1.

Table1. Composite Reliability, Convergent Validity, and Inter-Construct Correlations of the Community-Based Tourism Model
Goodness of Fit Statistic: $\chi^2/df = 2.564$, $\chi^2 = 2817.701$, $df = 1099$, $p < .001$, $RMSEA = .067$, $CFI = .896$, $IFI = .892$, $NFI = .841$, $RFI = .829$

	CR	AVE	MSV	ASV	TTourAT	TTourE	TTourC	TTourA	TTourS	TTourM	TTourR	BTourBI
TTourAT	0.908	0.664	0.654	0.434	0.815							
TTourE	0.952	0.666	0.656	0.485	0.598	0.816						
TTourC	0.933	0.698	0.645	0.443	0.548	0.647	0.836					
TTourA	0.933	0.664	0.613	0.467	0.556	0.749	0.701	0.815				
TTourS	0.930	0.688	0.613	0.529	0.682	0.775	0.721	0.783	0.830			
TTourM	0.941	0.694	0.656	0.527	0.710	0.810	0.685	0.725	0.776	0.833		
TTourR	0.918	0.737	0.645	0.503	0.671	0.698	0.803	0.713	0.734	0.737	0.859	
BTourBI	0.922	0.747	0.654	0.369	0.809	0.560	0.507	0.509	0.605	0.621	0.592	0.864

The Structural Equation Modeling (SEM)

The structural equation modeling (SEM) was conducted to assess the influence of community-based tourism management components on tourists' attitudes and their subsequent behavioral intentions in coastal community tourism areas. The model demonstrated an acceptable fit with the data: $\chi^2/df = 3.935$, $\chi^2 = 4407.416$, $df = 1120$, $p < .001$, $RMSEA = 0.092$, $CFI = 0.801$, and $IFI = 0.801$.

Indirect effects of CBT management components on behavioral intention

The indirect effects of CBT management components on tourists' behavioral intention, mediated by tourist attitude, are presented in Table 2. The results indicate that community participation (TourM) exhibited the strongest positive indirect effect on behavioral intention ($\beta = 0.338$), followed by service quality and access to ancillary services (TourS; $\beta = 0.243$) and coastal tourism resources (TourR; $\beta = 0.211$). In contrast, environmental sustainability and management (TourE), facility provision (TourC), and accessibility and tourist safety (TourA) demonstrated negligible or negative indirect effects. These findings suggest that engagement- and experience-oriented management components influence tourists' behavioral intentions primarily through shaping positive tourist attitudes.

Table 2. Indirect Path Effects in the Structural Equation Model of Coastal Community-Based Tourism

	TourR	TourM	TourS	TourA	TourC	TourE	TAttitude	Bintention
TAttitude	.000	.000	.000	.000	.000	.000	.000	.000
Bintention	.211	.338	.243	-.064	-.059	-.016	.000	.000

Table 3. Hypothesis Testing Results Based on Structural Equation Modeling (SEM) for Community-Based Tourism Management

	Standardized estimates	t-Values	Result	
H1: Community-based tourism management for coastal community tourism areas Components influence to Tourist attitude				
TourE	→ AT	-0.222	-4.72	Not supported
TourC	→ AT	-0.080	-1.843	Not supported
TourA	→ AT	-0.088	-1.799	Not supported
TourM	→ AT	.461	8.682***	Supported
TourS	→ AT	.332	7.051***	Supported
TourR	→ AT	.289	7.277***	Supported
H2: Tourist attitude influence behavioral intention				
AT	→ BI	.733	12.192***	Supported
Goodness of Fit Statistic: $\chi^2/df = 3.935$, $\chi^2 = 4407.416$, $df = 1120$, $p < .001$, $RMSEA = .092$, $CFI = .801$, $IFI = .801$				

TourE = the environmental sustainability and management component, TourC = the facility provision component, TourA = the accessibility and safety component, TourM = the community participation component, TourS = the service quality and access to ancillary services, TourR = the coastal tourism resource component

1) Effects of Community-Based Tourism Management on Tourist Attitude (H1) (Table 3)

The goal of Hypothesis 1 was to see if different portions of managing community-based tourism in coastal locations had a large impact on how tourists felt (AT). The study found that the results were not all the same.

The part of the TourE about taking care of and safeguarding the environment didn't change how tourists felt very much ($\beta = -0.022$, $t = -0.472$, $p > .05$). The accessibility and safety part (TourA) and the facility provision part (TourC) both had small negative effects ($\beta = -0.088$, $t = -1.799$, $p > .05$). The results reveal that simply taking care of the environment, providing basic amenities, and making sure residents are safe and can get around may not make tourists feel very good about the coastal communities that were studied. The portion about community engagement (TourM), on the other hand, had a strong and important beneficial effect on how tourists felt ($\beta = 0.461$, $t = 8.682$, $**p < .001$).

This illustrates that getting people involved in tourism is very vital for having tourists enjoy their time. The quality of service and the availability of supplementary services (TourS) also had a substantial impact on how tourists felt ($\beta = 0.332$, $t = 7.051$, $**p < .001$). The coastal tourist resource component (TourR) also exhibited a statistically significant positive influence ($\beta = 0.289$, $t = 7.277$, $**p < .001$). These results indicate how crucial it is for tourists to be kind when they visit a place that has a lot of tourism resources and a lot of community involvement.

2) Effect of Tourist Attitude on Behavioral Intention (H2)

Hypothesis 2 said that visitors' attitudes (AT) would have a substantial impact on their behavioral intention (BI). A high standardized path coefficient ($\beta = 0.733$, $t = 12.192$, $**p < .001$) shows that the results strongly support this hypothesis. The results of this study reveal that tourists' favorable feelings about a place, which are affected by several factors in tourism management, are very essential for their choice to return or recommend the site.

CONCLUSION AND RECOMMENDATION

This study highlights the importance of integrated CBT management in promoting sustainable development within coastal geosite destinations. Based on a mixed-methods approach in Southern Thailand, findings indicate that active community participation, stakeholder collaboration, and smart tools integration are critical to fostering environmental protection, socio-cultural preservation, and economic empowerment. Coastal geosites offer more than natural beauty; they are socio-ecological systems that require coordinated governance to ensure their resilience and relevance.

Researchers discovered that tourists' plans to do activities that were helpful for the environment were affected by how they felt about the quality of service and how well they could use digital media (Chamboko-Mpotaringa & Tichaaawa, 2023; Hung & Khoa, 2025). The study also shows that mobile augmented reality (AR) and digital maps not only make the experience better for visitors, but they also make geoconservation messaging stronger and make people want to come back (Vu et al., 2025). Also, community empowerment was found to be a component that helped turn tourism into a long-term development tool (Sutrisno et al., 2024; Handiman et al., 2024).

The proposed integrated CBT model is in line with the Sustainable Development Goals (SDGs), especially SDG 8 (Decent Work and Economic Growth), SDG 11 (Sustainable Cities and Communities), and SDG 12 (Responsible Consumption and Production). It gives fragile coastal areas a way to manage tourism that is flexible enough to be copied and changed to match their needs. Based on the findings, the following recommendations are proposed to strengthen policy implementation and community practice:

1. Policy Adoption: National and local governments should include CBT frameworks in their official plans for coastal tourism. This will make sure that different areas work together and that choices are made at the local level (Šambronská et al., 2024).

2. Giving the community more power: People in the area should learn more about geoconservation, how to start a business, and how to use digital technologies. This will give them greater influence and bring in more money from tourists (Handiman et al., 2024).

3. Smart Infrastructure Investment: To promote low-impact tourism and knowledge-based experiences, governments should spend money on digital interpretation systems, eco-friendly transportation, and mobile-guided trails (Solstrand-Lariviere & Gressness, 2025).

4. Participatory Monitoring: Stakeholders should create evaluation systems that are co-managed and employ ecological, social, and economic indicators to ensure that governance can change (Arinta et al., 2023).

5. Model Scaling and Dissemination: The study's framework should be shared with other coastal areas so that geotourism can be built on facts and copied.

In conclusion, the integrated CBT framework developed in this study provides a replicable and scalable model for coastal destinations seeking to harmonize conservation, community participation, and economic vitality, thereby contributing to the global agenda for sustainable tourism development.

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