

## **MANAGING COMMUNITY-BASED ECOTOURISM IN BANYUWEDANG BAY BALI AND ITS IMPLICATIONS FOR VISITOR SATISFACTION**

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### **ABSTRACT**

*Ecotourism in Banyuwedang Bay Bali is run with community-based principles (CBE). The local community is the determining entity to the extent that the implementation of CBE affects the attributes and services provided to visitors, thereby determining visitor satisfaction. The aims of this study are: (a) to analyze the level of CBE implementation, and (b) to analyze the effect of ecotourism attributes and services on visitor satisfaction. The results showed that the level of CBE implementation in Banyuwedang Bay was classified as fully implemented and very good. Full business ownership by the local community who simultaneously manages all activities in ecotourism independently. There is a significant influence of the attributes and quality of ecotourism services on visitor satisfaction. The findings of this study should dispel skepticism about the inability of local communities to manage ecotourism. It is recommended that the government provides trust and authority as well as adequate assistance to local communities in developing similar ecotourism independently and in mutual cooperation. The assistance needed is related to ecotourism management training and service quality management to visitors, considering that both have a significant effect in shaping visitor satisfaction. This research has a limited scope of study area, so to obtain a more general conclusion, a wider scope of research is needed on several community-based ecotourism destinations throughout the Bali region.*

Key words: *ecotourism, attribute, service, satisfaction, Bali*

### **INTRODUCTION**

Community-based tourism is promoted as a means of social and economic empowerment for local communities (Hamzah, 2014). For local communities, the benefits of community-based tourism are seen as a tool in fighting poverty, improving welfare, and encouraging local participation (López-Guzmán et al., 2011). Community-based ecotourism (CBE) is a form of community-based tourism that has received attention in recent years because it is believed to be the practice of the tourism industry that supports ecological, social, and cultural sustainability (Lai & Nepal, 2006; Simpson, 2008; Chiu, et al., 2014; Wondirad, et al., 2020). The success of CBE occurs when local people receive maximum economic, social, and cultural benefits (Kontogeorgopoulos et al., 2014; Lucchetti & Font, 2013). According to Mtapuri et al. (2015), community-based tourism emerged as an alternative form in tourism development intended to counteract mass tourism. One important aspect which is often forgotten is a visitor perspective of community-based tourism. Visitor satisfaction is an essential element of business enterprise sustainability. Satisfied customers stay longer, spend more, and when they go home, they recommend the destination to their friends. Visitor satisfaction is the result of a complex mix of factors including prior experience and expectations as well as the actual experience at the site.

Community-based tourism should provide a meaningful satisfaction to visitors. It can be said that community-based tourism involves meeting the needs

and curiosity of visitors through experiencing and learning the everyday routine ways of life of local people as expressed in their traditions, cultures and lifestyles (Mtapuri et al., 2015). In order to achieve the satisfaction of ecotourism visitors, generally they want ecotourism activities to be owned, run, and managed by local communities so that they reflect the authenticity of environmental, social, and cultural aspects for the welfare of local communities. In this context, ecotourism that is managed based on local communities in several aspects encourages tourists to be satisfied, especially those who care and believe in ecotourism as a medium for the welfare of the lower class.

The stories of success and failure of CBE have colored tourism studies so far. In 2008, Goodwin & Santilli (2009) reported that many community-based projects in Latin America had failed. The main causes are a lack of financial viability, the absence of a pioneer (local champion) in tourism development, a lack of community participation, and especially the lack of direct benefits for the local community due to a lack of ownership. Symptoms of the failure of ecotourism management with various causes also occur in Indonesia (Nasution, et al., 2018) including in Bali. One of the community-based managed ecotourism in Bali is Banyuwedang Bay. Considering that the CBE of Banyuwedang Bay was developed in 2012, the above problems also become a potential obstacle to the development of ecotourism in Banyuwedang in the future. This is because the local community has no previous experience in managing tourist destinations.

However, community-based project success (or otherwise its failure) in providing tangible benefits to local communities remains largely unidentified (Goodwin & Santilli, 2009). For example, the development of mass tourism in Bali has resulted in an economic leakage that is detrimental to local communities (Oka, et al., 2014). On the other hand, CBE in Banyuwedang Bay is an alternative approach taken by local communities in North Bali to develop ecotourism based on their initiatives and abilities to reduce leakage of economic benefits from the local tourism industry. According to Sebele (2010), CBE is an alternative to the capitalist power approach but has high economic leakage and is less profitable for local communities. Besides, CBE development by local communities in Bali is rarely well documented (Putra, 2015) so this paper is one of the efforts in that direction.

Examining the case of CBE development in Bali has unique characteristics, especially because the Balinese have strong social and cultural capital within the framework of Hindu customs and religion (Diarta, 2015; Putra, 2015) which determines the level of CBE implementation. The varying levels of CBE implementation in each tourism destination are also due to different stakeholders (Giampiccoli & Mtapuri, 2016). One of the CBEs managed by indigenous peoples is the Banyuwedang Bay ecotourism in Buleleng Regency, North Bali, which was initiated in 2012.

According to Trejos, et al. (2008) local people must have some control and share benefits fairly. So far, in the literature and studies on community-based projects in tourism around the world, there are many examples of tourism activities in communities that seem to belong to the local community even though they were initiated by 'outsiders' (Jones, 2005). This is because it is unclear what criteria are used as a benchmark for assessing whether tourism development is categorized as community-based or not (Giampiccoli & Mtapuri, 2016). This condition also occurs in the development of CBE around the world. Giampiccoli & Mtapuri (2016) pioneered a way to categorize tourism management with a community-based tourism affinity index (CBTAI) which will be adopted in analyzing the condition of CBE status in Banyuwedang Bay, North Bali.

According to Denman (2001), community-based ecotourism (CBE) is "*a form of ecotourism where the local community has substantial control over, and involvement in, its development and management, and a major proportion of the benefits remain within the community*". Ecotourism itself is defined by The International Ecotourism Society (TIES) as "*responsible travel to natural areas that conserves the environment, sustains the well-being of the local people, and involves interpretation and education*". Education is meant to be inclusive of both staff and guests (<https://ecotourism.org/what-is-ecotourism/>).

Furthermore, according to TIES, ecotourism is about uniting conservation, communities, and sustainable

travel. This means that those who implement, participate in and market ecotourism activities should adopt the following ecotourism principles: (a) Minimize physical, social, behavioral, and psychological impacts, (b) build environmental and cultural awareness and respect, (c) provide positive experiences for both visitors and hosts, (d) provide direct financial benefits for conservation, (e) generate financial benefits for both local people and private industry, (f) deliver memorable interpretative experiences to visitors that help raise sensitivity to host countries' political, environmental, and social climates, (g) design, construct and operate low-impact facilities, and (h) recognize the rights and spiritual beliefs of the indigenous people in your community and work in partnership with them to create empowerment (<https://ecotourism.org/what-is-ecotourism/>).

CBE development requires an assessment method to categorize the level of ecotourism implementation by adopting a *community-based tourism affinity index* (CBTAI) (Giampiccoli & Mtapuri, 2016). CBTAI can be used as an approach to categorize CBE so that stakeholders know the status of CBE initiative for various interests and support and to guide visitors in selecting the CBE they want to visit based on certain criteria of interest. This helps to achieve the satisfaction of visiting tourists because they already know the ecotourism status of the CBTAI score.

CBTAI can be used as a tool to determine the status of ecotourism in Banyuwedang Bay, whether it is categorized as CBE or not. CBTAI contains five variables (Giampiccoli & Mtapuri, 2016) namely: (a) stages of ecotourism development, (b) ownership of ecotourism, (c) ecotourism management, (d) benefits and marketing of ecotourism, and (e) the added value of ecotourism.

Visitor satisfaction is the key to the sustainability of a tourism destination (Baker & Crompton, 1900; Yoon & Uysal, 2005) including in Banyuwedang Bay ecotourism. Satisfied visitors tend to be loyal to the destination (Ramseook-Munhurrin et al., 2015; Rajesh, 2013) and indirectly become destination marketing agents either through social media or word of mouth. Tourism visits to destinations in a sustainable manner are expected to be able to improve the welfare of the community from economic endeavors, either directly or indirectly. Therefore, good CBE management with high CBTAI scores has a large effect in building tourist satisfaction.

According to Mill & Morrison (2009), the components of tourism destination attributes that must be provided to satisfy visitors are attractions, facilities, infrastructure, transportation, and hospitality, abbreviated as AFITH. Attractions are the main elements of destinations that attract potential visitors to visit (Hu & Wall, 2005). The characteristics of the attraction can be in the form of natural scenery such as beaches, mountains, rivers, valleys, plantations, culture, history, ethnicity, and accessibility. This tourist attraction is often referred to as an attribute of tourist attraction (Diarta,

2015). The next component, according to Mill & Morrison (2009), is many facilities needed by a destination, namely residential facilities, restaurants, supporting facilities such as minimarkets, souvenir shops, recreational facilities, and also an information center. The next elements of a destination are infrastructure and transportation. The infrastructure consists of all the construction of an area such as water networks, communication networks, health facilities, electricity or energy sources, drainage channels, roads, and security systems.

Another destination element is transportation, namely modes of transportation, roads, terminals, and also technology. The final element as a supporter of a destination, namely hospitality, is the hospitality shown by the host, for example, the friendliness of restaurant waiters, smiles by hotel employees, and also the hospitality of residents (Mill & Morrison, 2009). Destination attributes that are well managed tend to support visitor satisfaction. According to Kotler & Keller (2016), this happens when it meets or exceeds the expectations of visitors and vice versa will lead to disappointment if it is below expectations. Furthermore, Kotler & Keller (2016) state that consumer behavior after purchasing a product depends on the level of satisfaction in consuming it.

Service quality according to Parasuraman, et al. (1985) is the customer's perception of the service received. The definition of service quality includes satisfying or exceeding customer expectations, clear compliance with the specifications of the requirements offered, suitability for use where the product meets customer needs, and nothing less. Destination managers try to improve service quality to increase visitor satisfaction. According to Sparks & Westgate (2002), poor service will have a direct impact on the destination, because visitors will tend to look for other destinations when they are not satisfied with the services obtained. The concept of service quality promoted by Parasuraman et al. (1985) has five dimensions, namely: (a) tangible (physical facilities, equipment, and appearance of staff or personnel), (b) reliability (the ability to show reliable and accurate service), (c) responsiveness (willingness to help and provide fast service), (d) assurances (knowledge and courtesy of staff or employees and their ability to give confidence to tourists, and (e) empathy (personal care and attention from management or company to customers).

Tourist satisfaction is often a topic of tourism research (Hong et al., 2020; McDougall & Levesque, 2000; Kandampully & Suhartanto, 2000; Devesa et al., 2010) because it plays an important role in the survival and future of any tourism products and services. Kotler & Keller (2016) states that satisfaction is a response or consumer opinion about a product or service that provides a level of pleasure, whether the product meets, does not meet, or exceeds the level of consumer pleasure. Kotler & Keller (2016) generally define satisfaction as a feeling of pleasure or disappointment that someone feels about the results of comparing the appearance of a product they feel with what they expect. Giese & Cote (2000) states that tourist satisfaction is a comparison between what is expected and the level of performance perceived by tourists.

According to Jones (2005), many CBEs fail because community-based initiatives do not come from local communities. This raises the question of the extent of CBE implementation in the Banyuwedang Bay ecotourism managed by a local community group called "Pokmasta Banyuwedang". Knowing the level of implementation of CBE management is very important to foster visitor satisfaction through managing the attributes and quality of ecotourism services to visitors (Eom et al., 2020; Diarta et al., 2015). Kozak & Rimmington (1999) and Lee et al., (2011) emphasize that visitor satisfaction is highly dependent on the condition of the attributes and how well the quality of service received by visitors. How CBE in Banyuwedang Bay affects visitor satisfaction will be answered in this paper.

Based on the previous background, the research objectives are as follows.

- 1) Analyze the community-based ecotourism (CBE) implementation in Banyuwedang Bay North Bali.
- 2) Analyze the influence of ecotourism attributes and service quality on visitor satisfaction in Banyuwedang Bay ecotourism.

## RESEARCH METHOD

The research was conducted from April to September 2020 in Banyuwedang ecotourism, North Bali (Figure 1). The research location was chosen purposively with the consideration that this ecotourism has been developed since 2012 independently by local communities. However, its development is very slow due to various limitations, especially costs and management, which result in not making a maximum contribution to the welfare of the surrounding community.

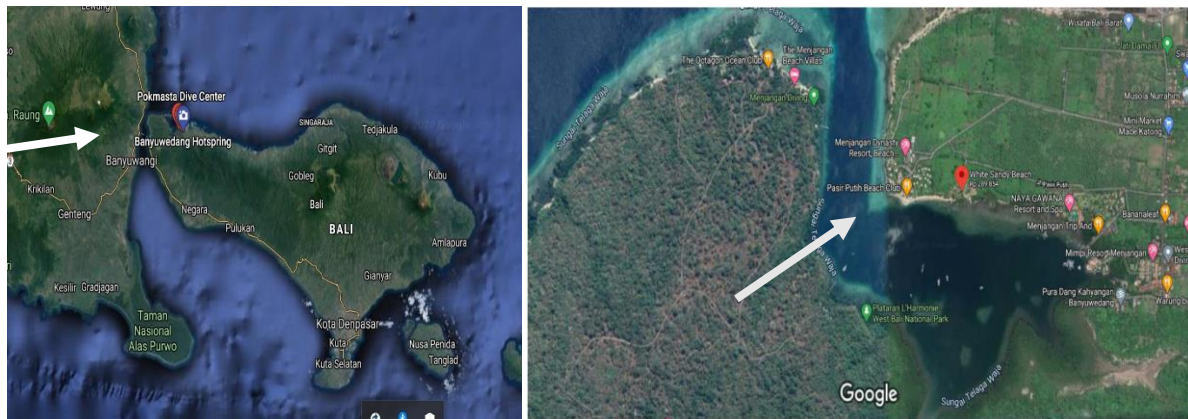


Figure 1. Banyuwedang Ecotourism Location in North Bali (Source: Google Map)

Banyuwedang Bay Ecotourism is administratively located in Pejarakan Village, Gerokgak District, Buleleng Regency, North Bali. Initially, the coastal area of Banyuwedang Bay was very neglected despite having beautiful mangrove forests and white sand. The beach in Banyuwedang Bay was very poorly maintained, very dirty, lots of plastic waste scattered about, and there was no access to the beach.

In September 2012, an inaugural meeting was held which was attended by 79 local people and resulted in making group activity programs. "Pokmasta", the name of the community group managing the Banyuwedang Bay Ecotourism group, was formed as a community gathering group for the Pejarakan Village community to raise awareness of the importance of maintaining natural resources, especially coastal areas for the survival of future generations. This is possible by sustainably managing the environment but it is not prohibited from being used as a tourist attraction.

Pokmasta as the owner of ecotourism collaborates with the PUR Project to regenerate marine and coastal habitats in Banyuwedang Bay. Several projects that are carried out together to support ecotourism and saving the environment include (https://www.purprojet.com/project/pejarakan/): (a) restoration of degraded coral reef ecosystems through the construction of an artificial reef using advanced technology (Biorock) to accelerate and sustain the regeneration process, (b) implementation of plastic waste management scheme to tackle pollution crisis, (c) conservation and restoration of key mangroves habitats, (d) replantation of trees in proximity to the project site to increase soil retention, water quality and encourage income diversification, and (e) empower the local community to manage their natural resources.

Sources of data in this study come from primary data and secondary data. Primary data for the first research objectives were sourced from in-depth interviews with key informants regarding the implementation of CBE in Banyuwedang Bay ecotourism using the community-based tourism affinity index (CBTAI) (Giampiccoli & Mtapuri, 2016).

Meanwhile, primary data for the second research purpose comes from a survey of 100 visitors regarding the following aspects: (a) respondent characteristics, (b) perceptions of ecotourism attributes, (c) perceptions of ecotourism service quality, and (d) visitor satisfaction with ecotourism. Secondary data were obtained from literature, reports, publications, and related previous research results, and records carried out by ecotourism managers and other sources. Secondary data used include an overview of ecotourism, existing attractions, and other supporting data.

The study population was the ecotourism visitors of Banyuwedang Bay, especially those who had completed their tourism activities so that they were able to assess and evaluate their tourism experiences. There are no sales of admission tickets to the Banyuwedang Bay ecotourism but income is obtained from renting tourism and lodging facilities.

However, the sample size can be approached with the analysis tool required, namely SEMPLS. According to Ghazali (2014) for the variant-based structural equation model (SEM) or partial least square (PLS), it is regulated that the recommended sample size ranges from a minimum of 30 respondents to 100 respondents. Based on these provisions, the number of samples that will be used as respondents is 100 visitors. This is sufficient to carry out an analysis using the WarpPLS version 3.0 (Sholihin and Ratmono, 2013).

SEMPLS is used to test the structural relationship between measurement variables (dimensions). The selection of respondents who were selected during the field survey was carried out using a convenience sampling technique. Respondents who were interviewed were based on visitors who were met in the Banyuwedang Bay ecotourism when the field research was conducted and respondents were willing to be interviewed.

The first research objective is measured through the adaptation of five community-based tourism affinity index variables (Giampiccoli & Mtapuri, 2016) namely: (a) stages of ecotourism development, (b) ownership of ecotourism, (c) ecotourism management, (d) benefits and marketing of ecotourism, and (e) the added value of

ecotourism. Meanwhile, the second research objective was measured through three variables, namely: (a) ecotourism attributes, (b) ecotourism service quality, and (c) visitor satisfaction with ecotourism.

Measurement of CBT Implementation in Banyuwedang Bay ecotourism using CBTAI by adding up all measurement scores and compared with a categorization table (Giampiccoli & Mtapuri, 2016) as can be seen in Table 1.

The second research objective was analyzed using a structural equation model based on Partial Least Square as can be seen in Figure 2.

Conceptually, good ecotourism attributes will be able to build positive perceptions of visitors as well as stimulate satisfaction (Kozak, 2009; Meng et al., 2008; Alegre & Garau, 2010). Therefore, the first research hypothesis is proposed, namely:

- *H1: A good ecotourism attribute of Banyuwedang ecotourism has a significant effect on visitor satisfaction*

Furthermore, good service quality from eco-tourism will also build positive perceptions of visitors to encourage satisfaction (Agyapong, 2011; Baker & Crompton, 2000; Le et al., 2019). Therefore, a second hypothesis is proposed, namely:

- *H2: A good ecotourism service quality of Banyuwedang ecotourism has a significant effect on visitor satisfaction*

This study used a questionnaire by scoring with a Likert scale (score 1 for very bad to 5 for very good) (Sugiyono, 2014). The structural equation model consists of the measurement (outer) model and the structural (inner) model parts. Measurement models aim to determine the role of indicators in reflecting variables, while structural models aim to examine the relationship between one variable and another, both direct and indirect. Later, after analyzing the data, it will produce a structural equation model that will be evaluated from both the outer model and the inner model.

## RESULT AND DISCUSSION

### 1. Characteristics of Respondents

The main characteristics of respondents can be seen in Table 2. This data was collected during the range of the Covid-19 pandemic outbreak, namely from May to the end of August 2020. Considering that the survey was conducted during the Covid-19 pandemic, the majority of Banyuwedang ecotourism visitors (95%) came from Bali and the rest (5%) from outside Bali.

It can be seen that the average visit to Banyuwedang ecotourism is more than once (5.38 times) which means repeat visitors. This is a fairly good indication of satisfaction. Only satisfied visitors make repeated visits to a tourist destination. The next indication is seen from all visitors intending to return to Banyuwedang ecotourism in the future.

Table 1. Categorization of CBT Implementation in Banyuwedang Bay Ecotourism.

CBT Category	CBT Implementation Level	Value (Sum of Variables 1, 2, 3, and 4)	Extra Value (***)
Full CBT (must include at least full ownership and/or community management)	Excellent	171 points or more	
	Good	151-170 points	
	Bad	131-150 points	
	Very bad	At least 130 points	
Partial CBT	Excellent	111-129 points	
	Good	91-110 points	
	Bad	71-90 points	
	Very bad	51-70 points	
Not CBT		50 points or less	

Source: adapted from Giampiccoli & Mtapuri (2016)

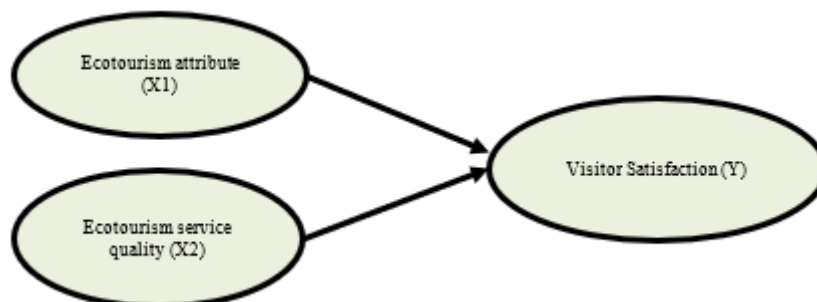


Figure 2. Research Model

**Banyuwedang Community-Based Ecotourism Implementation**

The implementation of CBE in Banyuwedang Bay is approached with CBTAI (Giampiccoli & Mtapuri, 2016). Based on the results of in-depth interviews with key informants, the measurement results of each indicator can be described in Table 3.

The CBTAI as the basis for classifying the level of CBE implementation of Banyuwedang Bay ecotourism can be seen in Table 4.

Table 2. Characteristics of Respondents in Banyuwedang Bay Ecotourism (n=100).

Number	Respondent Characteristics	Information
1.	Age	Range 17 to 65 years. Average of 30.45 years
2.	Sex	Male 59%, Female 41%.
3.	Origin of visitors	Bali 95%, Outside Bali 5%
4.	Highest education	Elementary school 3%, Junior high school 22%, High school 52%, Graduates and above 23%.
5.	Frequency of visits to ecotourism (including now)	Lowest 1 time. Most 15 times. The average visit was 5.38 times
6.	Number of group followers during the visit	Lowest 1 person. Up to 11 people. The average group visit was 5.33 people
7.	Income group	Less than IDR 1 million 21%, IDR 1 million to IDR 2 million 17%, IDR 2 million to IDR 3 million 21%, IDR 3 million to IDR 4 million 25%, IDR 4 million to IDR 5 million 10%, More than IDR 5 million 6%.
8.	The intention to return to ecotourism at the next opportunity	Yes 100%, No 0%

Table 3. Measurement of Community-Based Ecotourism Implementation in Banyuwedang Bay

Number	Variable	Indicator	Parameter	Reference Score	CBTAI Ecotourism Banyuwedang Bay	
1	CBT development stages (Achieved a score of 130 from a maximum score of 135 or 96.30%)	Origin of CBT development initiatives	Local (in the community)	25	25	
			Local (outside the community)	15		
			Outside the community (government)	15		
			Outside the community (NGOs)	10		
			Private	5		
		Entities involved / CBT Facilitator	Local community-based organizations	20		20
			Government	15		
			NGOs	10		
			Private	5		
		CBT development approach	Bottom-up	20		20
			Top-down	10		
		Type of partnership	Formal	10		10
			Informal	5		
		Parties invited to cooperate	External	15		15
Internal	5					
Type of CBT business	Formal	10	10			
	Informal	5				
CBT Market	Domestic only	10	20			
	International only	10				
	Domestic and international	20				
CBT Scale	Micro / small scale	10	10			
	Growing / expansive	15				
2	Ownership of CBT (Achieved a score of 90)	Collective business of local communities (village / cooperative)	Society as a whole	25	25	
			Several community members	25		

Number	Variable	Indicator	Parameter	Reference Score	CBTAI Ecotourism Banyuwedang Bay
	out of a maximum score of 115 or 78.26%)	/ customary village)			
		Community-owned company	Society as a whole	25	
			Several community members	20	20
		Individual/household ownership	Under the banner of the CBT organization	25	25
			Completely independent	10	
		Partnership	The partnership between society and government/state	15	
			The partnership between communities and NGOs	15	
			The partnership between public and private	10	10
		Lease agreement	Community rental agreement with government/state	10	
			Community lease agreements with NGOs	10	
			Public and private lease agreements	5	5
		Outside / external ownership	Government/country	15	
			NGOs	10	
			Private	5	5
3	CBT Management (Achieved a score of 85 from a maximum score of 115 or 73.91%)	Management by the community	Joint efforts as a community unit	25	20
			A group of community members	20	
		Company management	Joint efforts as a community unit	25	20
			A group of community members	20	
		Individual management	Individual under the banner of the CBT organization	25	25
			Completely independent	10	
		Partnership management	Community management partnership with government/state	15	
			Community management partnerships with NGOs	15	10
			Community-private management partnership	10	
		Management agreement	The community management agreement with the government/state	10	
			Community management agreements with NGOs	10	5
			Community and private management agreements	5	
		External management	Government / State	15	
			NGOs	10	
			Private	5	5
4	Benefits and marketing of CBT (Achieved a score of 30 from a maximum score of 30 or 100%)	Distribution of CBT benefits	Only direct benefit	5	
			Direct and indirect benefits	15	15
		CBT marketing	Community control	15	15
			Contribution by external parties	5	
5	Value-added (Achieved a score of 50 from a maximum score of 90 or 55.56%)	Basic infrastructure	Access road		5
		* Yes but very bad (5)	Electricity		15
		** Acceptable (10)	Water		10
		*** Good (15)	Internet		10
			Toilet		5
			Shower		5

Source: adapted from Giampiccoli & Mtapuri (2016)

Table 4. Categorization of CBT Implementation in Banyuwedang Bay Ecotourism

CBT category	CBT Implementation Level	Score criteria (number of variables 1, 2, 3, and 4)	Banyuwedang Bay Ecotourism Score Achievement	Extra Score (***)
Full CBT (Must include at least full ownership and/or community management)	Excellent	171 points or more	<ul style="list-style-type: none"> <li>• <b>Score 335 (Full CBT and very good)</b></li> <li>• <b>Full ownership by community groups (Pokmasta)</b></li> <li>• <b>Full management by community groups (Pokmasta)</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Road access is very poor (still dirt and rocky, muddy when it rains)</b></li> <li>• <b>There is sufficient electricity</b></li> <li>• <b>There is sufficient water available</b></li> <li>• <b>Internet and mobile networks are sufficient</b></li> <li>• <b>Toilets and showers are poor and inadequate in need of repair</b></li> </ul>
	Good	151-170 points		
	Bad	131-150 points		
	Very bad	At least 130 points		

Source: adapted from Giampiccoli & Mtapuri (2016)

Banyuwedang Bay ecotourism is classified as having an excellent CBTAI (score 335>171 basis points). Pokmasta can be said to have implemented CBE fully and very well. Business ownership is fully owned by the Pokmasta community group which simultaneously manages all activities in ecotourism. The management of ecotourism is also carried out independently by Pokmasta.

The ecotourism development stage achieved a score of 130 (out of a maximum score of 135 or 96.30%). The initial initiative ecotourism development purely from several local community leaders who have a concern for tourism. The entities involved are purely local community social organizations, namely Pokmasta while Pejarakan Customary Village, and Pejarakan Village as protectors. A pure bottom-up CBE development approach wherein the initiative, planning, implementation, evaluation of activities, and utilization of results are all carried out through a deliberative consensus mechanism at a meeting of all Pokmasta members. Pokmasta tries to develop its business by partnering with external parties, especially regarding the marketing of supporting ecotourism facilities owned by Pokmasta, especially regarding online reservations for lodging and bungalows.

Pokmasta's experience in Ecotourism Banyuwedang shows that local community initiatives can build social movements to achieve common goals. The bottom-up approach found empirical evidence of the success of Banyuwedang ecotourism. This is in line with Pookhao et al. (2018) that emphasizes that in CBE the authenticity of ideas that come from local communities has a greater chance of being implemented successfully than if ideas come from the top down. The participation of local communities in Banyuwedang in CBE development is a determining factor for success which is in line with the findings of Palmer & Chuamuangphan (2018) in Chiang Rai, Thailand. The successful implementation of CBE in Banyuwedang is mainly due to the local community's strong sense of belonging to ecotourism.

The successful implementation of CBE in Banyuwedang is mainly due to the local community's

strong sense of belonging to ecotourism. The involvement of local communities since generating ideas, planning, implementing, and evaluating and enjoying the results are carried out together. The success of CBE implementation in Banyuwedang was also greatly influenced by the pioneering of local champions who induced ecotourism ideas to local communities. The use of social capital (customary village institutions) and cultural capital (Tri Hita Karana Philosophy) which teaches harmony in social interaction and cooperation with others, harmonious relationships with the environment underlie efforts to realize sustainable ecotourism, and harmonious relationships with God as creator which are manifested in rituals in protecting nature (so called Tumpek Wariga).

Ecotourism ownership achieved a score of 90 (out of a maximum score of 115 or 78.26%). Banyuwedang Bay Ecotourism is a collective effort that belongs to local communities. Pokmasta income is distributed based on mutual agreement among Pokmasta members. Considering that it is a group business, there is no ownership and management from external parties. The ownership of ecotourism by local community groups shows that tourism businesses do not always have to be large-scale to bring benefits to community empowerment. In line with the results of this study, Simpson (2008) and (Moswete & Thapa, 2015) also stated that the ownership and benefits of CBE are the two keywords for the success of CBE development.

Collective ownership of ecotourism by the local community provides ample space for the community to contribute to participation in the form of new ideas, implementing them together, realizing shortcomings as well as a place for learning towards better management. Only people who feel they have a direct share in ecotourism will have more enthusiasm to support the success of their ecotourism. This is what happened in Banyuwedang Ecotourism.

Furthermore, the benefits obtained by the local community are quite a lot, both directly and indirectly. The Pokmasta manages several tourism facilities including homestay accommodation with standard types and bungalows. The standard rooms are 6 rooms with a



rate of IDR 250,000 (USD 17.24) to IDR 300,000 (USD 20.69) per night while there are 3 types of bungalows with a rate of IDR 400,000 (USD 27.59) to IDR 500,000 (USD 34.48) per night. The occupancy rate of lodging accommodation owned by Pokmasta before the Covid-19 Pandemic was an average of 75 percent occupied, while the peak season from July to August occupancy reached 90 percent to 100 percent.

Other tourism facilities managed by Pokmasta are a restaurant and water sports such as kayaking (glass bottom canoe). There are four glass bottoms with a rental fee for foreign tourists of IDR 200,000 (USD 13.79) per hour, while for domestic tourists IDR 100,000 (USD 6.89) per hour. Pokmasta also has four non-transparent kayaks. This ordinary kayak rental for foreign tourists is IDR 100,000 (USD 6.89) per hour, while for local tourists IDR 30,000 (USD 2.07) per hour. To run a tourism business, Pokmasta has 13 employees. Pokmasta has partnered with other parties, especially online marketing agents such as Booking.com, Traveloka.com, and Expedia.com. Online agents will get a fee of 15% of the rate charged to potential customers on their respective sites. Pokmasta hires marketing personnel to take care of orders from consumers online and is given a fee of 10% so that Pokmasta in selling the room includes an additional 25% fee per room rate for both standard rooms and bungalows to cover these costs

Ecotourism management achieved a score of 85 (out of a maximum score of 115 or 73.91%). The ecotourism management is carried out by Pokmasta which is formed and fully implemented independently. The partnership management relationship is carried out in terms of marketing accommodation owned by Pokmasta (lodging and bungalows). This cooperation is carried out based on a written business agreement. Banyuwedang Ecotourism management is carried out based on deliberative planning, carried out by personnel who come from Pokmasta itself. Community-based ecotourism businesses have justification for development because they can exist and develop according to the principles of togetherness to achieve common goals (Stone, 2015).

Benefits and marketing of ecotourism achieved a score of 30 (out of a maximum score of 30 or 100%). Banyuwedang Ecotourism has benefits for the community, especially Pokmasta members, obtained either directly or indirectly. Direct benefits are obtained from leasing tourism facilities such as canoes, bottom glass boats, snorkeling and diving equipment, rental of lodging rooms, bungalows, and restaurants. Meanwhile, indirect benefits come from the growth of supporting businesses in tourism activities, such as being a driver of tourism transportation, income from selling souvenirs, and food and beverage stalls opened by the community through the entrance to ecotourism.

Banyuwedang Ecotourism shows that the tourism business has a tremendous economic multiplier effect on

local communities. Economic benefits are not only for community members who are directly in contact with tourism but also encourage tourism support businesses around ecotourism by people who are not part of the Pokmasta group. As for the distribution of income as much as 60% for member business capital, 5% for social activities, 10% for Pejarakan Customary Village, 5% for stationery, 10% for management services, the remaining 10% for Pejarakan Service Village.

Banyuwedang Ecotourism added value achieved a score of 50 (out of a maximum score of 90 or 55.56%). The development of Banyuwedang ecotourism has triggered the development of supporting infrastructure for ecotourism, even though it is running very slowly due to limited capital and human resources. The most inadequate infrastructure until now is the access road to the Banyuwedang Bay eco-tourism which is still a rocky road. This road has even become a mud puddle in some parts which is very disturbing and difficult for vehicles to pass. Another infrastructure is already available that is sufficient to support the existence of ecotourism, such as electricity, water, cell phone networks with the internet. However, the existence of toilets and showers is still very limited in both number and condition. Even though ecotourism with the main attractions of water sports and beaches with mangroves as a place for family recreation, it requires toilets and showers as well as a place to change clothes on the beach directly. The classic problem in CBE development is limited capital and the ability to provide tourism support infrastructure and facilities. Limited resources are a big issue for the community in developing ecotourism and maintaining its sustainability (Tsaur, et al., 2006; Antão-Geraldes & Sheppard, 2020).

In brief, the development of CBE in Banyuwedang Bay clearly shows that its success is largely determined by the implementation of the principles of CBE with the full support of local community participation. The role of Balinese customs (Desa Adat) and culture (Tri Hita Karana Philosophy) in the development of CBE is also very decisive in transforming the people's mindset from destroying natural resources to protecting natural resources requires a cultural touch to be able to internalize values through customary meetings. The success of CBE is supported by the emergence of visionary local community leaders as role models who open up local people's insights about the value of conserving natural resources while using them as a sustainable tourist attraction to generate income.

## **2. Visitors' Perceptions on Ecotourism Attribute, Service Quality, and Satisfaction**

The average achievement score of respondents' perceptions of Banyuwedang Bay ecotourism is 4.00 (from a maximum score of 5.00) as can be seen in Table 5 which is perceived as good ecotourism to be visited as a tourist attraction.

**Respondents' perception of ecotourism attributes**

Respondents' perceptions of ecotourism attributes were approached through 5 indicators with 18 measurement parameters. Based on the analysis, respondents' perceptions of the ecotourism attribute fall into the good category with the average measurement score achievement of 3.82 (from a maximum score of 5.00) (Table 5 and Table 6).

The parameters that are classified as "good/excellent" attribute of Banyuwedang ecotourism (Figure 3) are X1.4 (*an interesting place for recreation and leisure*, frequency reaches 100%), X1.5 (*outbound places and family gatherings*, the frequency reaches 98%), X1.7 (*the restaurant is adequate*, frequency reaches 96%), X1.8 (*facilities for children's and family play in ecotourism are adequate*, frequency reaches 96%), and X1.11 (*telephone communication network is good*, frequency reaches 93%).

Table 5. Respondents' Average Perception Score Achievement of Banyuwedang Bay Ecotourism.

Notation	Variable	Average score achievement	Category
(X1)	Ecotourism attributes	3.82	Good
(X2)	Quality of service	4.10	Good
(Y)	Visitor satisfaction	4.09	Satisfy
Average		4.00	Good

Table 6. Respondents' Perception of Banyuwedang Bay Ecotourism Attributes.

Dimensions	Notation	Indicator	Frequency Distribution of Measurement Parameter Scores					Average	Category
			1	2	3	4	5		
Attraction	(X1.1)	Beautiful ecotourism landscape (instagramable)	0	0	22	64	14	3.92	Good
	(X1.2)	The community's daily traditional activities that are still ongoing in ecotourism	0	0	11	74	15	4.04	Good
	(X1.3)	The religious and cultural rituals in ecotourism are still ongoing	0	1	35	46	18	3.81	Good
	(X1.4)	An interesting place for recreation and leisure	0	0	0	46	54	4.54	Excellent
	(X1.5)	Outbound places and family gatherings	0	0	2	67	31	4.29	Excellent
			The average score of the attraction					4.12	Good
Facilities	(X1.6)	Toilet is adequate	0	1	1	84	14	4.11	Good
	(X1.7)	Restaurant is adequate	0	0	4	63	33	4.29	Excellent
	(X1.8)	Facilities for children's and family play in ecotourism are adequate	0	0	6	49	45	4.39	Excellent
	(X1.9)	Adequate safety and health facilities	0	0	7	79	14	4.07	Good
	(X1.10)	Rest areas are available and appropriate	0	0	5	72	23	4.18	Good
			Average facilities score					4.21	Excellent
Infrastructures	(X1.11)	Telephone communication (signal) network is good	1	1	5	33	60	4.50	Excellent
	(X1.12)	The access road to the ecotourism location is good	77	4	8	9	2	1.55	Very bad
	(X1.13)	Parking space is convenient	0	1	33	63	3	3.68	Good
			Average infrastructures score					3.24	Moderate
Transportation	(X1.14)	Availability of transportation modes for ecotourism	1	3	41	50	5	3.55	Good
	(X1.15)	The cost of transportation services to ecotourism is affordable	1	3	42	49	5	3.54	Good
			Transportation Average					3.55	Good
Hospitality	(X1.16)	The comfortable atmosphere in ecotourism	0	0	7	82	11	4.04	Good
	(X1.17)	The hospitality of ecotourism officers/managers	0	0	12	73	15	4.03	Good
	(X1.18)	The hospitality of the people in ecotourism	0	1	19	69	11	3.90	Good
			Hospitality score average					3.99	Good
			Ecotourism attribute variable average					3.82	Good



Figure 3. Various Attributes of Banyuwedang Bay Ecotourism

Meanwhile, the parameter which is included in the "very bad" category is X1.12 (*roads leading to the ecotourism location*, frequency 81%). Banyuwedang Bay ecotourism does have excellent eco-tourism potential, the atmosphere is very calm and comfortable, and away from traffic noise. However, unfortunately, the road to the ecotourism location from the main highway is still a dirt and rocky road that is not comfortable for vehicles to pass. This road infrastructure has been heavily complained about by visitors, especially if the rainy season will become thickly muddy.

• **Respondents' Perceptions of Ecotourism Service Quality**

Respondents' perceptions of the service quality of Banyuwedang Bay ecotourism were approached through 5 indicators with 11 measurement parameters. Based on the analysis, respondents' perceptions of service quality fall into the good category with the average measurement score achievement of 4.10 (from a maximum score of 5.00) as can be seen in Table 5 and Table 7.

The service quality parameters in Banyuwedang Bay ecotourism that fall into the "good/excellent" category are X2.1 (*tidiness of employee/manager appearance*, frequency reaches 100%), X2.9 (*communication between managers and visitors is going well*, frequency response reaches 100%).

However, even though communication with visitors is quite good, the ability of managers to maintain good relations after visiting is considered not optimal where the X2.11 parameter (*maintaining good relations with visitors*, good/excellent frequency only reaches 57%), the lowest of all parameters which represents the quality of service.

• **Respondents' satisfaction with ecotourism**

Respondents' satisfaction with Banyuwedang Bay ecotourism is measured through 8 parameters and falls in the "satisfied" category where the average score of

4.09 (out of a maximum score of 5.00) can be seen in Table 5 and Table 8.

The parameters of measuring visitor satisfaction towards Banyuwedang Bay ecotourism which are categorized as "very satisfied", are mainly from the Y1 parameter (*satisfied with tourist attractions in ecotourism*, frequency reaches 100%). While the parameters with the "satisfied" category but with the lowest average score are Y8 (*satisfied with the overall ecotourism situation*, frequency reaches 91%) and Y5 (*satisfied with prices on ecotourism*, frequency reaches 89%). Price is a sensitive issue for visitors. A restaurant run by Pokmasta in Banyuwedang, for example, serves food and drinks at a slightly higher price. The prices for lodging in bungalows also follow the market rates for rental lodgings in the vicinity. For local visitors who want to stay in a bungalow or eat at a restaurant, it may be still a bit expensive even though the price is not too high either.

**3. The Effect of Attributes and Service Quality on Visitors Satisfaction**

Before testing the research hypothesis, an evaluation of the measurement model is carried out by testing the validity and reliability of the model. The results of the convergent validity test of 37 measurement indicators after three rounds of analysis, 12 indicators had a loading factor above 0.6 so they were categorized as having convergent validity (Table 9) and were worthy of further analysis.

Furthermore, the discriminant validity test is shown in Table 9. All AVE values of the three variables > 0.5 and the root value of AVE > AVE value so that the discriminant validity test shows all variables are valid, namely the ecotourism attribute (AVE root 0.782 > AVE 0.611), service quality (AVE root 0.751 > AVE 0.564), and visitor satisfaction (AVE root 0.738 > AVE 0.545). Based on the data above, all variables have valid discriminant validity so that further analysis can be carried out.

Table 7. Respondents' Perceptions of Service Quality in Banyuwedang Bay Ecotourism.

Dimensions	Notation	Indicator	Frequency Distribution of Measurement Parameter Scores					Average	Category
			1	2	3	4	5		
<i>Tangible</i>	(X2.1)	The neat appearance of employees/managers	0	0	0	78	22	4.22	Excellent
	(X2.2)	Ecotourism neatness and cleanliness	0	0	2	82	16	4.14	Good
							<b>Tangible</b>	<b>4.18</b>	<b>Good</b>
<i>Reliability</i>	(X2.3)	Keep promises of promotion with the reality of ecotourism	0	0	12	75	13	4.01	Good
	(X2.4)	The services provided can be trusted	0	0	2	83	15	4.13	Good
	(X2.5)	Prices on ecotourism are honest and transparent	0	0	8	79	13	4.05	Good
							<b>Reliability</b>	<b>4.06</b>	<b>Good</b>
<i>Responsiveness</i>	(X2.6)	The speed of response of ecotourism managers to visitor complaints	0	0	6	80	14	4.08	Good
	(X2.7)	Want to be responsible if there are problems with visitors	0	0	7	76	17	4.10	Good
							<b>Responsiveness</b>	<b>4.09</b>	<b>Good</b>
<i>Assurance</i>	(X2.8)	Ecotourism management hospitality	0	0	2	77	21	4.19	Good
	(X2.9)	The communication between ecotourism managers and visitors is going well	0	0	0	59	41	4.41	Excellent
							<b>Assurance</b>	<b>4.30</b>	<b>Excellent</b>
<i>Empathy</i>	(X2.10)	Ecotourism managers are friendly with visitors	0	0	0	87	13	4.13	Good
	(X2.11)	Maintain good relationships with visitors	0	0	43	49	8	3.65	Good
							<b>Empathy</b>	<b>3.89</b>	<b>Good</b>
<b>The average variable of service quality</b>							<b>4.10</b>	<b>Good</b>	

Table 8. Respondents' Satisfaction with Ecotourism in Banyuwedang Bay

Dimensions	Notation	Indicator	Frequency Distribution of Measurement Parameter Scores					Average	Category
			1	2	3	4	5		
<i>Overall Satisfaction</i>	Y1	Satisfied with tourist attractions in ecotourism	0	0	0	60	40	4.40	Very satisfied
	Y2	Satisfied with tourism facilities in ecotourism	0	0	1	80	19	4.18	Satisfied
	Y3	Satisfied with the supporting infrastructure for ecotourism	0	0	1	82	17	4.16	Satisfied
	Y4	Satisfied with the ecotourism manager's hospitality	0	0	3	80	17	4.14	Satisfied
	Y5	Satisfied with the prices on ecotourism	0	0	16	73	11	3.95	Satisfied
	Y6	Satisfied with tidiness and cleanliness in ecotourism	0	0	1	85	14	4.13	Satisfied
	Y7	Satisfied with responsible managers	0	0	9	85	6	3.97	Satisfied
	Y8	Satisfied with the whole ecotourism situation	0	0	33	58	9	3.76	Satisfied
<b>The average score of respondent satisfaction variable</b>							<b>4.09</b>	<b>Satisfied</b>	

Table 9. Results of Testing the Convergent Validity of Research Indicators.

Notation	Indicator	<i>Outer Loading</i>	Standard Error	P-Value
<b>Ecotourism attribute variables</b>				
X1.1	Beautiful ecotourism landscape (instagramable)	0,797	0,081	<0.001
X1.3	The religious and cultural rituals in ecotourism are still ongoing	0,790	0,081	<0.001
X1.13	Convenient ecotourism parking space	0,649	0,084	<0.001
X1.14	Availability of transportation modes for ecotourism	0,824	0,080	<0.001
X1.15	The cost of transportation services to ecotourism is affordable	0,834	0,080	<0.001
<b>Ecotourism's service quality</b>				

X2.2	Ecotourism neatness and cleanliness	0,730	0,082	<0.001
X2.7	Manager response speed to visitor complaints	0,844	0,080	<0.001
X2.8	The hospitality of the manager	0,669	0,083	<0.001
Visitor Satisfaction Variable				
Y2	Satisfied with tourism facilities in ecotourism	0,801	0,080	<0.001
Y3	Satisfied with the supporting infrastructure for ecotourism	0,794	0,081	<0.001
Y6	Satisfied with tidiness and cleanliness in ecotourism	0,637	0,084	<0.001
Y8	Satisfied with the whole ecotourism situation	0,710	0,082	<0.001

Table 10. Test Results of Discriminant Validity and Variable Reliability

Number	Variable	Discriminant Validity Test		Reliability Test	
		AVE	AVE root	Cronbach Alpha	Composite Reliability
1.	Ecotourism attributes	0,611 (valid)	0,782 (valid)	0,838 (reliable)	0,886 (reliable)
2.	Service quality	0,564 (valid)	0,751 (valid)	0,707 (reliable)	0,793 (reliable)
3.	Visitor Satisfaction	0,545 (valid)	0,738 (valid)	0,719 (reliable)	0,828 (reliable)

Table 11. The Goodness of Fit Structural Equations

Number	The goodness of Fit Criteria	Variable		
		Ecotourism Attributes	Ecotourism service quality	Visitor Satisfaction on Ecotourism
1.	R-Squared	-	-	0,306
2.	Composite Reliability	0,886	0,793	0,826
3.	Cronbach's Alpha	0,838	0,707	0,719
4.	Average Variance Extracted	0,611	0,564	0,545
5.	Full Collinearity. VIF	1,202	1,144	1,257
6.	Q-Squared	-	-	0,314

The variable reliability test can be seen from the Cronbach Alpha value and the Composite Reliability value of each variable. The variable can be said to have high reliability if the Cronbach Alpha value > 0.7 and the Composite Reliability value > 0.7. The reliability test shows all variables are reliable so that further analysis can be carried out as can be seen in Table 9.

Furthermore, Table 10 shows the results of the research model goodness of fit (Solihin and Ratmono, 2013). Based on Table 10, it can be seen that the coefficient of determination (R-squared) is 0.306 which is classified as weak (Ghozali, 2014). This also means that variants of visitor satisfaction can be explained by 31% by variants of ecotourism attributes and variants of ecotourism service quality while the rest are not included in the proposed model. The future consequences of modeling should include several additional variables in addition to the attributes of ecotourism and the ecotourism services quality in predicting the causes of satisfaction of visitors to the Banyuwedang Bay ecotourism.

A good model must have a Q-squared > 0 or must have predictive validity greater than zero (Ghozali,

2014). Based on Table 10, it can be seen that the Q-squared value is 0.314 > 0, which means that the estimated model analyzed shows good predictive validity.

Full Collinearity VIF is the result of full collinearity testing which includes vertical and lateral multicollinearity. A good structural model must have a full collinearity VIF value <3.3 so that the model is free from collinearity problems (Solihin and Ratmono, 2013). Based on Table 10, it can be seen that the value of full collinearity VIF in the measurement model is 0.314 <3.3, which means that the proposed model is free from collinearity problems.

Figure 4 and Table 11 show the path coefficient effect of the ecotourism attribute variable (X1) on the ecotourism visitor satisfaction variable (Y), which is significant at 0.285 (0.29) (p = 0.001). Likewise, the influence of the ecotourism service quality variable (X2) on the ecotourism visitor satisfaction variable (Y) is very significant at 0.376 (0.38) (p <0.001). This data shows both hypothesis 1 (H1) and hypothesis 2 (H2) are accepted.

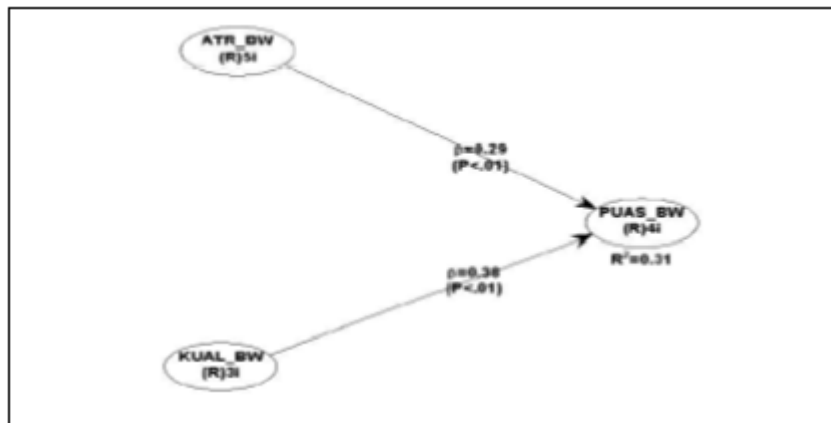


Figure 4. Structural Equation Model Output

Table 12. Direct Effect of Exogenous Variables on Endogenous Variables

Number	Hypothesis	Var. Exogenous> Var. Endogenous	Path Coefficient	Effect Size	Standard Error	P-Value	Conclusion
1.	H1	Ecotourism attribute (X1)> Visitor satisfaction (Y)	0,285	0,123	0,093	0,001 (**)	H1 accepted
2.	H2	Service quality (X2)> Ecotourism visitor satisfaction (Y)	0,376	0,183	0,090	<0,001 (***)	H2 accepted

• **Effect of Ecotourism Attributes on Visitor Satisfaction**

Table 11 shows that the first hypothesis (H1) is accepted where there is a significant effect (p = 0.001) of the ecotourism attribute variable on tourist satisfaction in Banyuwedang Bay ecotourism. This is consistent with previous research by Kozak & Rimmington (1999) and Thiimsak & Ruangkanjanes (2016) which state that destination attributes influence shaping tourist satisfaction with tourism destinations. This is supported by the effect size coefficient of 0.123 which is classified as moderate (Solihin and Ratmono, 2013). Effect size is the absolute value of the individual contribution of each predictor latent variable to the R-squared value of the latent criterion variable. The effect size value <0.02 is classified as weak, 0.02 to 0.15 is classified as medium, and 0.15 to 0.35 is classified as strong. Table 9 shows that there are 5 indicators of ecotourism attributes that significantly affect visitor satisfaction.

Visitors are satisfied to visit Banyuwedang Bay ecotourism which has ecotourism attributes that match their expectations. Good ecotourism attributes will form a positive perception in the minds of visitors. The ecotourism atmosphere is still far from the crowd and is somewhat hidden from the settlements on the hidden side of Banyuwedang Bay. Visitors who come seem to see a very natural destination with a beautiful beach atmosphere. The beautiful ecotourism landscape (“instagramable”) is one of the most influential indicators

in building the ecotourism attributes of Banyuwedang Bay.

The view of the white sandy beach between the mangrove forests is a unique attraction considering that the surrounding beaches (for example from the west coast at Gilimanuk and West Bali National Park) to the east coast (Pemuteran and Pulaki beaches) generally have black sand. This white sandy beach has been managed quite nicely by Pokmasta Banyuwedang, which is equipped with a large parking area. Several bungalows have been built, complete with a restaurant and gazebo. Some visitors use this ecotourism as a pre-wedding photoshoot location because of its exoticism.

The future implication for the development of Banyuwedang Bay ecotourism is that Pokmasta is obliged to protect the Banyuwedang Bay landscape so that it remains natural, beautiful and sustainable as the main attribute of the destination. Mangroves and white sand are the main strengths of ecotourism. Strengthening the ecotourism side of coastal mangroves is directed at ensuring the sustainability of the Banyuwedang Bay landscape. The ecotourism attribute that needs attention is the improvement of supporting facilities for tourist attractions for the convenience and satisfaction of visitors. Ecotourism is also required to ensure the safety and health of visitors during the Covid-19 pandemic by implementing strict health protocols. The participation of the government and the private sector is needed both through mentoring and CSR which does not bind

Pokmasta as the owner of ecotourism. If this is done correctly it will likely make visitors even more satisfied.

#### • Effect of Ecotourism Service Quality on Visitors' Satisfactions

Hypothesis 2 (H2) is accepted where there is a very significant effect ( $p < 0.001$ ) of service quality on visitor satisfaction of Banyuwedang Bay ecotourism. This is consistent with research by Lee et al. (2011) who found that service quality has an effect on tourist satisfaction at destinations. The effect size coefficient is 0.183 which is classified as strong (Solihin and Ratmono, 2013). A strong effect size shows that the service quality has a strong role (even stronger than the ecotourism attribute variable) in influencing visitor satisfaction.

The quality of ecotourism services is determined by the friendliness of the staff to visitors which causes visitors to feel comfortable and encourages them to feel satisfied. The ecotourism staff is quite dexterous in explaining the various tourist attraction facilities that can be selected, deftly providing solutions when visitors have problems using tourist facilities, dexterous in responding to visitor requests in supporting their tourism activities while on ecotourism. Visitor satisfaction is also formed from the ecotourism condition which is quite neat and well organized so that it makes visitors feel quite comfortable doing tourism activities in Banyuwedang Bay ecotourism.

*The future implications* for Banyuwedang Bay ecotourists must continue to provide quality services for visitors because it has proven to be very significant in determining their satisfaction with ecotourism. Satisfied visitors will tend to want to return to ecotourism which has a positive impact on the existence of ecotourism. Increasing the capacity of ecotourism management employees needs attention to provide excellent service to visitors by taking part in training, comparative studies to other more advanced destinations, or taking courses related to tourism destination management

### CONCLUSION

Based on the analysis carried out, it can be concluded: (1) Banyuwedang Bay ecotourism is implementing CBE fully and very well. The CBE development stage since the initiation came from the local community. Full business ownership by Pokmasta which simultaneously manages all activities in ecotourism. Ecotourism management is also carried out independently by Pokmasta. (2) The ecotourism attribute has a *significant* effect while the service quality has a *very significant* effect on visitor satisfaction. This implies that to create visitor satisfaction, ecotourism managers are required to properly maintain tourist attractions which are the main attributes of eco-tourism along with the provision of quality services as a standard for good ecotourism management.

*The contribution* of this research mainly proves that community-based ecotourism is also proven to influence the formation of visitor satisfaction. The findings of this study should remove skepticism about the inability of local communities to manage tourism destinations. *Therefore, it is recommended* that the government should give trust and authority as well as sufficient assistance to local communities in developing destinations independently and in mutual cooperation. The assistance needed is related to destination management training and quality management services to visitors, considering that both have a significant effect on shaping visitor satisfaction. *This research has limitations* in the scope of the study area, so to obtain a more general conclusion, a wider scope of research is needed regarding several community-based ecotourism destinations throughout the Bali region.

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### REFERENCES

- Agyapong, G. K. . (2011). The Effect of Service Quality on Customer Satisfaction in the Utility Industry – A Case of Vodafone (Ghana). *International Journal of Business and Management*, 6(5), 203–210. <https://doi.org/10.5539/ijbm.v6n5p203>
- Alegre, J., & Garau, J. (2010). Tourist Satisfaction and Dissatisfaction. *Annals of Tourism Research*, 37(1), 52–73. <https://doi.org/10.1016/j.annals.2009.07.001>
- Antão-Geraldes, A. M., & Sheppard, V. A. (2020). Promoting sustainable tourism in rural and natural areas through small business innovation: the case of Atenor village (Northeast, Portugal). *Journal of Ecotourism*, 19(2), 185–193. <https://doi.org/10.1080/14724049.2019.1607864>
- Baker, D. A., & Crompton, J. L. (2000). Quality, satisfaction and behavioral intentions. *Annals of Tourism Research*. [https://doi.org/10.1016/S0160-7383\(99\)00108-5](https://doi.org/10.1016/S0160-7383(99)00108-5)
- Chiu, Y. T. H., Lee, W. I., & Chen, T. H. (2014). Environmentally responsible behavior in ecotourism: Antecedents and implications. *Tourism Management*. <https://doi.org/10.1016/j.tourman.2013.06.013>
- Denman, R. (2001). Guidelines for community-based ecotourism development. *Report*, (July), 1–24.
- Devesa, M., Laguna, M., & Palacios, A. (2010). The role of motivation in visitor satisfaction: Empirical

- evidence in rural tourism. *Tourism Management*, 31(4), 547–552. <https://doi.org/10.1016/j.tourman.2009.06.006>
- Diarta, I Ketut Surya., I Gde Pitana, Darma Putra, and W. (2015). Factors Influencing Brand Equity of Bali As a Tourism Destination. *Journal of Tourism*, 2(2), 100–111. <https://doi.org/10.24922/eot.v2i2.19501>
- Diarta, I. K. S. (2015). Community Based Tourism dalam Pengembangan Ekowisata Terumbu Karang di Pemuteran. In I. N. D. Putra (Ed.), *Pariwisata Berbasis Masyarakat Model Bali* (1st ed., p. 238). Denpasar Bali: Program Studi Magister Pariwisata Universitas Udayana bekerjasama dengan Buku Arti.
- Eom, T., Han, H., & Song, H. J. (2020). Discovering the perceived attributes of CBT destination travelers in South Korea: A mixed method approach. *Tourism Management*, 77(October 2019), 104013. <https://doi.org/10.1016/j.tourman.2019.104013>
- Giampiccoli Andrea & Oliver Mtapuri. (2016). A community-based tourism affinity index: its development and possible use. *African Journal of Hospitality, Tourism and Leisure*, 5(1), 1–16.
- Giese, J., & Cote, J. (2000). Defining consumer satisfaction. *Academy of Marketing Science Review*, 2000, 1.
- Goodwin, H., & Santilli, R. (2009). Community-Based Tourism : a success ? *Tourism Management*.
- Hamzah, A. (2014). Critical Success Factors for Creating Community-Based Tourism. *The Wiley Blackwell Companion to Tourism*, 589–599. <https://doi.org/10.1002/9781118474648.ch47>
- Hong, Y., Cai, G., Mo, Z., Gao, W., Xu, L., Jiang, Y., & Jiang, J. (2020). The impact of covid-19 on tourist satisfaction with b&b in zhejiang, china: An importance– performance analysis. *International Journal of Environmental Research and Public Health*. <https://doi.org/10.3390/ijerph17103747>
- Hu, W., & Wall, G. (2005). Environmental management, environmental image and the competitive tourist attraction. *Journal of Sustainable Tourism*, 13(6), 617–635. <https://doi.org/10.1080/09669580508668584>
- Jones, S. (2005). Community-based ecotourism: The significance of social capital. *Annals of Tourism Research*. <https://doi.org/10.1016/j.annals.2004.06.007>
- Kandampully, J., & Suhartanto, D. (2000). Customer loyalty in the hotel industry: The role of customer satisfaction and image. *International Journal of Contemporary Hospitality Management*. <https://doi.org/10.1108/09596110010342559>
- Kontogeorgopoulos, N., Churyen, A., & Duangsaeng, V. (2014). Success Factors in Community-Based Tourism in Thailand: The Role of Luck, External Support, and Local Leadership. *Tourism Planning and Development*, 11(1), 106–124. <https://doi.org/10.1080/21568316.2013.852991>
- Kotler, P., & Keller, K. L. (2016). *A Framework for Marketing Management. Marketing Management*.
- Kozak, M. (2009). Measuring tourist satisfaction with multiple destination attributes. *Tourism Analysis*, 14(3), 229–240.
- Kozak, M., & Rimmington, M. (1999). Measuring tourist destination competitiveness: Conceptual considerations and empirical findings. *International Journal of Hospitality Management*. [https://doi.org/10.1016/s0278-4319\(99\)00034-1](https://doi.org/10.1016/s0278-4319(99)00034-1)
- Lai, P. H., & Nepal, S. K. (2006). Local perspectives of ecotourism development in Tawushan Nature Reserve, Taiwan. *Tourism Management*. <https://doi.org/10.1016/j.tourman.2005.11.010>
- Le, D. N., Nguyen, H. T., & Hoang Truong, P. (2019). Port logistics service quality and customer satisfaction: Empirical evidence from Vietnam. *Asian Journal of Shipping and Logistics*. <https://doi.org/10.1016/j.ajsl.2019.10.003>
- Lee, J. H., Kim, H. D., Ko, Y. J., & Sagas, M. (2011). The influence of service quality on satisfaction and intention: A gender segmentation strategy. *Sport Management Review*, 14(1), 54–63. <https://doi.org/10.1016/j.smr.2010.02.002>
- López-Guzmán, T., Sánchez-Cañizares, S., & Pavón, V. (2011). Community - based tourism in developing countries: A case study. *Tourismos*, 6(1), 69–84.
- Lucchetti, V. G., & Font, X. (2013). Community Based Tourism: Critical Success Factors. *The Internafional Centre for Responsible Tourism*, 27(June), 1–20.
- Mcdougall, G. H. g., & Levesque, T. (2000). Customer satisfaction with services: putting perceived value into the equation. *Journal of Services Marketing*. <https://doi.org/10.1108/08876040010340937>
- Meng, F., Tepanon, Y., & Uysal, M. (2008). Measuring tourist satisfaction by attribute and motivation: The case of a nature-based resort. *Journal of Vacation Marketing*. <https://doi.org/10.1177/1356766707084218>
- Moswete, N., & Thapa, B. (2015). Factors that influence support for community-based ecotourism in the rural communities adjacent to the Kgalagadi Transfrontier Park, Botswana. *Journal of Ecotourism*, 14(2–3), 243–263. <https://doi.org/10.1080/14724049.2015.1051537>
- Mtapuri, O., Giampiccoli, A., & Jugmohan, S. (2015). Community-based tourism affinity index: a visitor’s approach. *African Journal of Hospitality, Tourism and Leisure*, 4(2), 1–13.
- Mtapuri, O., Giampiccoli, A., & Sean, J. (2015). Community-Based Tourism Affinity Index : A Visitor’s Approach. *African Journal of Hospitality, Tourism and Leisure*, 4(2), 1–13.
- Nasution, H., Avenzora, R., & Sunarminto, T. (2018). Analisis Kebijakan dan peraturan Perundang-undangan Ekowisata di Indonesia. *Media Konservasi*, 23(1), 9–17.



- Oka Suryawardani, I. G. A., Gde Bendesa, I. K., Antara, M., & Suryawan Wiranatha, A. (2014). Tourism Leakage of the Accommodation Sector in Bali. *ASEAN Journal on Hospitality and Tourism*, 13(1), 3. <https://doi.org/10.5614/ajht.2014.13.1.01>
- Palmer, N. J., & Chuamuangphan, N. (2018). Governance and local participation in ecotourism: community-level ecotourism stakeholders in Chiang Rai province, Thailand. *Journal of Ecotourism*, 17(3), 320–337. <https://doi.org/10.1080/14724049.2018.1502248>
- Parasuraman., Valarie Zeithaml., L. L. B. (1985). A Conceptual Model of Service Quality and Its Implications for Future Research. *Journal of Marketing*, 49(4), 41–50. <https://doi.org/10.2307/1251430>
- Pookhao Sonjai, N., Bushell, R., Hawkins, M., & Staiff, R. (2018). Community-based ecotourism: beyond authenticity and the commodification of local people. *Journal of Ecotourism*, 17(3), 252–267. <https://doi.org/10.1080/14724049.2018.1503502>
- Putra, I. N. D. (2015). *Pariwisata Berbasis Masyarakat Model Bali. Magister Pariwisata Universitas Udayana*. Bali.
- Rajesh, R. (2013). Impact of Tourist Perceptions, Destination Image and Tourist Satisfaction on Destination Loyalty: A Conceptual Model. *PASOS. Revista de Turismo y Patrimonio Cultural*, 11(3), 67–78. <https://doi.org/10.25145/j.pasos.2013.11.039>
- Ramseook-Munhurrin, P., Seebaluck, V. N., & Naidoo, P. (2015). Examining the Structural Relationships of Destination Image, Perceived Value, Tourist Satisfaction and Loyalty: Case of Mauritius. *Procedia - Social and Behavioral Sciences*, 175(230), 252–259. <https://doi.org/10.1016/j.sbspro.2015.01.1198>
- Sebele, L. S. (2010). Community-based tourism ventures, benefits and challenges: Khama Rhino Sanctuary Trust, Central District, Botswana. *Tourism Management*, 31(1), 136–146. <https://doi.org/10.1016/j.tourman.2009.01.005>
- Simpson, M. C. (2008). Community Benefit Tourism Initiatives-A conceptual oxymoron? *Tourism Management*, 29(1), 1–18. <https://doi.org/10.1016/j.tourman.2007.06.005>
- Solihin dan Dwi Ratmono. (2013). Analisis SEM-PLS Dengan Warppls 3.0 Untuk Hubungan Nonlinier dalam Penelitian Sosial dan Bisnis. Yogyakarta: CV. Andi Offset
- Sparks, R., & Westgate, M. (2002). Broad-based and Targeted Sponsorship Strategies in Canadian Women's Ice Hockey. *International Journal of Sports Marketing and Sponsorship*. <https://doi.org/10.1108/ijmsms-04-01-2002-b006>
- Stone, M. T. (2015). Community-based ecotourism: A collaborative partnerships perspective. *Journal of Ecotourism*. <https://doi.org/10.1080/14724049.2015.1023309>
- Thiumsak, T., & Ruangkanjanases, A. (2016). Factors Influencing International Visitors to Revisit Bangkok, Thailand. *Journal of Economics, Business and Management*, 4(3), 220–230. <https://doi.org/10.7763/joebm.2016.v4.94>
- Trejos, B., Chiang, L.-H. N., & Huang, W.-C. (2008). Support Networks for Community-Based Tourism in Rural Costa Rica#. *The Open Area Studies Journal*, 1(1), 16–25. <https://doi.org/10.2174/1874914300801010016>
- Tsaur, S. H., Lin, Y. C., & Lin, J. H. (2006). Evaluating ecotourism sustainability from the integrated perspective of resource, community and tourism. *Tourism Management*. <https://doi.org/10.1016/j.tourman.2005.02.006>
- WONDIRAD, A., Tolkach, D., & King, B. (2020). Stakeholder collaboration as a major factor for sustainable ecotourism development in developing countries. *Tourism Management*, 78(November 2019), 104024. <https://doi.org/10.1016/j.tourman.2019.104024>
- Yoon, Y., & Uysal, M. (2005). An examination of the effects of motivation and satisfaction on destination loyalty: A structural model. *Tourism Management*, 26(1), 45–56. <https://doi.org/10.1016/j.tourman.2003.08.016>