

The Impact of Community Participation on Tourism Village Management and Sustainability: A Case Study in Wonokitri Village, Pasuruan

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ABSTRACT

This research explores the impact of community participation in tourism village management –represented through motivation, opportunity and ability - and its implications for sustainability. Tourism villages, as a local community participation movement, play an important role in promoting economic, social, environmental, and cultural welfare. This study uses a quantitative approach with Partial Least Square-Structural Equation Modeling (PLS-SEM) analysis techniques and was conducted in Wonokitri Village, Tosari District, Pasuruan Regency, East Java, Indonesia. Data were collected through questionnaires from 100 local community respondents. The results showed that motivation, opportunity, and ability had a significant impact on tourism village management, with an r-square contribution of 61.4%. However, only tourism village management had a significant influence on sustainability, with an r-square contribution of 85.2%. These findings emphasize the importance of tourism village management through strategic planning, technology, innovation, and community involvement in creating tourism village sustainability. In addition, the main driving factors in effective management include motivation indicators such as awareness of preserving culture and the environment, as well as job and economic opportunities, and increased income. This research provides theoretical contributions by expanding the sustainability model based on tourism village management and providing operational guidelines for the government, managers, and local communities to encourage tourism villages as centers of sustainable economic growth, as well as cultural and environmental preservation.

1. INTRODUCTION

Tourism is a strategic sector that plays an important role in global economic growth, improving people's welfare, and preserving culture and the environment. In Indonesia, Law Number 10 of 2009 concerning Tourism states that tourism development aims to increase economic growth, create jobs, and reduce poverty. The National Tourism Development Master Plan (RIPPN) 2010-2025 also emphasizes the importance of community-based and sustainable tourism as a direction of development that is oriented towards economic equality, environmental preservation, and improving the quality of life of local

communities (Kemenparekraf, 2021; Kemendagri, 2009). However, various studies show that the tourism industry is not free from negative impacts, such as environmental degradation and loss of local cultural values (Gonzalez et al., 2018; Peeters et al., 2018; Perkumienė and Pranskūnienė, 2019). Therefore, a responsible and community-based tourism development approach is a relevant solution to reduce these negative impacts (Hwang and Stewart, 2017; Lee and Jan, 2019; Okazaki, 2008).

Tourism villages are one form of sustainable tourism implementation, and they also provide space for local communities to manage natural and cultural

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resources independently, while improving their economic welfare. In Indonesia, the development of tourism villages is supported by Law Number 6 of 2014 concerning Villages, which encourages initiatives, participation, and empowerment of village communities to explore local potential for shared welfare. Tourism villages have unique characteristics, such as the preservation of nature, traditions, and local culture, which can then be the main pillars in community-based economic development (Cawley and Gillmor, 2008; López-Sanz et al., 2021; Pasanchay and Schott, 2021). In addition, tourism villages play a role in motivating communities to protect the environment and preserve their cultural values (Cetin and Kalaycı, 2012; Gao et al., 2019).

One of a successful community-based tourism village is Wonokitri Village in Pasuruan Regency, East Java Province, Indonesia. This village developed the Edelweiss Park as a sustainable conservation tourism destination. This initiative involved a local farmer group, Hulun Hiyang, working together under the auspices of the Bromo Tengger Semeru National Park (TNBTS). In addition to preserving Edelweiss as a rare plant, this initiative also provides economic impacts for the community through the sale of souvenirs and participation in tourism activities. The local culture of the Tengger Tribe also supports the preservation of Edelweiss through its use in traditional rituals such as Yadnya Kasada and Karo, which are cultural tourism attractions (Ernawati et al., 2023). With TNBTS branding as “Land of Edelweiss”, community participation in the management of Edelweiss Park shows a real contribution to the sustainability of the tourist village.

Community participation in managing tourism villages is influenced by three main factors, namely Motivation, Opportunity, and Ability, known as the MOA Model. Community motivation arises from awareness of the importance of preserving the environment and local culture, while opportunity is multi-faceted and generally created through economic benefits, employment, and increased welfare. Community ability in planning, management, and supervision is largely considered the key to the success of sustainable tourism development (Cawley and Gillmor, 2008; Gao et al., 2019; Lee and Jan, 2019; López-Sanz et al., 2021; Pasanchay and Schott, 2021; Utama and Trimurti, 2021). However, community participation is often influenced by differences in individual characteristics, behavior, and local context, so a more in-depth approach is needed in analyzing

these factors (Hung et al., 2010; Jepson et al., 2014; Kunasekaran et al., 2022).

Previous studies on the MOA Model have mostly focused on the global context, while studies that specifically analyze the application of this model in the management of tourist villages in Indonesia are still limited. Therefore, this study analyzes the impact of community participation (based on the MOA Model) on the management of tourist villages and their sustainability in Wonokitri Village. By exploring the relationship between community motivation, opportunity, and ability in the context of Edelweiss Park management, this study is expected to provide theoretical and practical contributions to the development of sustainable community-based tourism.

2. METHODOLOGY

2.1 Area of study

The research location in Wonokitri Village, Tosari District, Pasuruan Regency, East Java Province, Indonesia are presented in Figure 1. The village covers an area of approximately 1,290.294 hectares and has a population of 2,792 people. Wonokitri is known for its conservation-based tourism potential, represented by The Edelweiss Park. Conservation efforts in Wonokitri focus on Edelweiss plant protection, cultural heritage preservation, and economic empowerment through the development of sustainable tourism villages.



Figure 1. The Edelweiss Park, author documentation, 2024

2.2 Data collection and sample determination

This study employed a data collection method using a purposive sampling technique. Respondents were selected based on the criterion that they must be local residents holding a Population Identification

Card (KTP) of Wonokitri Village. This requirement ensured that only officially registered residents were included, as they were more likely to be directly involved by Tourism Village Management. Having a KTP indicates legal residency, which is relevant for understanding the participation, perceptions, and contributions of local people to the development of tourism in the village. Primary data were collected through questionnaires, which directly gathered information from respondents regarding their experiences, involvement, and perspectives on tourism management. Secondary data were obtained through literature studies, including reviews of relevant research, government reports, and other published sources that provided context and theoretical support for the study. The population size in this study is 2,792 people, which serves as the basis for determining the sample size using the Slovin formula. The population number was obtained from official village records and statistical data from the local government of Wonokitri Village. Based on the Slovin formula, the sample is $n = \frac{2792}{1+2792 (10\%)^2}$, so that a minimum sample of 97 respondents is obtained. To increase representativeness, the number of samples was enlarged to 100 respondents. An error rate of 10% was chosen by considering the limitations of budget, time, and research resources.

2.3 Methods

Structural Equation Modeling (SEM) analysis with Smart Partial Least Square (PLS) version 4.0. The structural equation model tested was:

$$Y1 = \gamma_1 X_1 + \gamma_2 X_2 + \gamma_3 X_3 + \zeta$$

$$Y2 = \gamma_4 X_1 + \gamma_5 X_2 + \gamma_6 X_3 + \beta_1 Y1 + \zeta$$

Where: γ (Gamma) is The coefficient of influence of independent variables on dependent variables; β (Beta) is the coefficient of influence of the dependent variable on the latent variable; ζ (Zeta) is the model error; X_1 =motivation; X_2 =opportunity; X_3 =ability; $Y1$ =tourism village management; $Y2$ =sustainability.

These steps are designed to ensure that the research model is valid, reliable, and capable of providing statistically significant results, thereby supporting scientific contributions to sustainable tourism village management.

3. RESULTS AND DISCUSSION

3.1 Respondent characteristics results

The results of the respondent characteristics analysis (shown in Table 1) provide an important picture of the demographics of the community participating in the management of Wonokitri Tourism Village. Respondents consisted of 79% male and 21% female. This proportion reflects the dominance of men in the management of tourism village activities, which may be influenced by traditional roles in rural communities, where men are more active in economic and social activities (Ramaano, 2024). Respondent characteristics based on age range found participants from 17 years to over 40 years. The majority of respondents are in the 31-35 age group, with 37%. The 26-30 age range is the second largest group (33%), followed by the 21-25 age range (16%). Respondents aged 36-40 years (7%) and over 40 (5%) also contributed, while the youngest group (17-20 years) only amounted to 2%. The 31-35 age group is in a productive phase with job stability and family responsibilities that allow individuals to participate in more community activities. Their emotional maturity, life experience, and economic stability also support involvement in managing tourist villages, thus becoming the main driving force in the community (Ma et al., 2022; Panić et al., 2024; Seraphin, 2024).

Most respondents had a high school/vocational education (84%). Respondents with a bachelor's degree reached 11%, while 3% had a junior high school education, and 2% had an elementary school education. The high proportion of high school graduates shows the relationship between the level of practical education and direct involvement in tourism village activities. A high school education background provides sufficient basic skills to participate in programs such as technical training or conservation activities. High school/vocational high school graduates also showed openness to further training, which can improve their technical skills and capacity in managing tourism villages sustainably (Gao et al., 2019; Utama and Trimurti, 2021). Most respondents had a monthly income in the range of IDR 2-3 million (41%). Respondents with an income of IDR 1-2 million reached 34%, while an income of IDR 3-4 million was 13%. The group with income less than IDR 1 million amounted to 5%, while income of IDR 4-5 million reached 4%, and more than IDR 5 million

Table 1. Respondent characteristics (Data processed, 2024)

Category	Sub-category	Frequency	Percentage (%)
Gender	Male	79	79
	Female	21	21
Age	17-20 years	2	2
	21-25 years	16	16
	26-30 years	33	33
	31-35 years	37	37
	36-40 years	7	7
	>40 years	5	5
Education level	Elementary School/Islamic Elementary School	2	2
	Junior High School/Islamic Junior High School	3	3
	High School/Vocational High School	84	84
	Bachelor's	11	11
Income per month (Indonesian Rupiah: IDR)	<1 million	5	5
	1-2 million	34	34
	2-3 million	41	41
	3-4 million	13	13
	4-5 million	4	4
	>5 million	3	3

only accounted for 3%. Respondents with middle income (IDR 2-3 million) showed the potential to be actively involved in managing tourism villages because they were more open to opportunity that could improve their economic welfare (Suyatna et al., 2024). The involvement of this group is important because tourism village activities provide direct economic benefits such as increased income through small businesses or jobs related to tourism (Hariyadi et al., 2024; Jing et al., 2024; Suyatna et al., 2024). Overall, the profile of respondent characteristics shows that the group participating in the management of Wonokitri Tourism Village is dominated by individuals in the productive age group, with a practical educational background, and a middle-income level. The combination of these factors creates a community base that is responsive to economic opportunity, shows motivations for environmental conservation, and is open to cultural preservation. This is in line with the MOA Model theory which emphasizes the importance of motivation, opportunity, and ability in encouraging community participation (Utama and Trimurti, 2021).

3.2 Measurement model results

Measurement Model analysis aims to ensure that the instruments used in this study are valid and reliable. Validation was carried out through convergent and discriminant validity tests, as well as reliability using composite reliability and Cronbach's

alpha values. The results of the measurement model analysis were processed using Smart PLS 4.0. The 20 measurement items in this study were developed based on a combination of previous research and contextual adjustments to fit the study's objectives. The development process included the following:

1. Literature review and theoretical basis:
 - Constructs and indicators were adapted from established studies on community-based tourism, sustainable tourism, and entrepreneurship to ensure validity and reliability.
2. Contextual adaptation:
 - Some indicators were directly adopted, while others were refined to match the specific characteristics of Wonokitri Village, ensuring relevance to the local tourism framework.
3. Expert validation and pilot testing:
 - The initial set of items was reviewed by tourism experts and tested with a small sample of local respondents to assess clarity, reliability, and applicability.
4. Finalization and model testing:
 - Factor analysis confirmed the construct validity, with most loading values exceeding 0.7, indicating strong measurement consistency.

This process ensured that the measurement items accurately capture motivation, opportunity, ability, tourism village management, and sustainability within the context of community-based

tourism. The following Table 2 shows the outer loading values for each indicator in the research construct.

All indicators show a loading factor value ≥ 0.50 (Table 2 and Figure 2), which indicates that the indicators are valid in measuring the construct (Hair et al., 2019).

Table 2. Initial outer loading (Data processed with Smart PLS 4.0, 2024)

Construction	Code	Item	Loading
Motivation	M1	Awareness of preserving the environment	0.909
	M2	Awareness of preserving culture	0.866
	M3	Economic potential	0.766
	M4	There is cooperation and supporting facilities	0.716
Opportunity	OP1	There is natural and cultural potential	0.782
	OP2	There are economic opportunities	0.725
	OP3	There are job opportunities	0.743
	OP4	There is an increase in income	0.752
Ability	AB1	Have environmental management skills	0.771
	AB2	Have business management skills	0.823
	AB3	Have effective communication skills	0.826
	AB4	Have networking and partnership capabilities	0.736
Tourism village management	TVM1	Strategic planning	0.526
	TVM2	Marketing and promotion	0.773
	TVM3	Service and friendliness	0.863
	TVM4	Technology and innovation	0.887
Sustainability	S1	Environmental sustainability	0.562
	S2	Cultural sustainability	0.870
	S3	Economic welfare	0.761
	S4	Social welfare	0.848

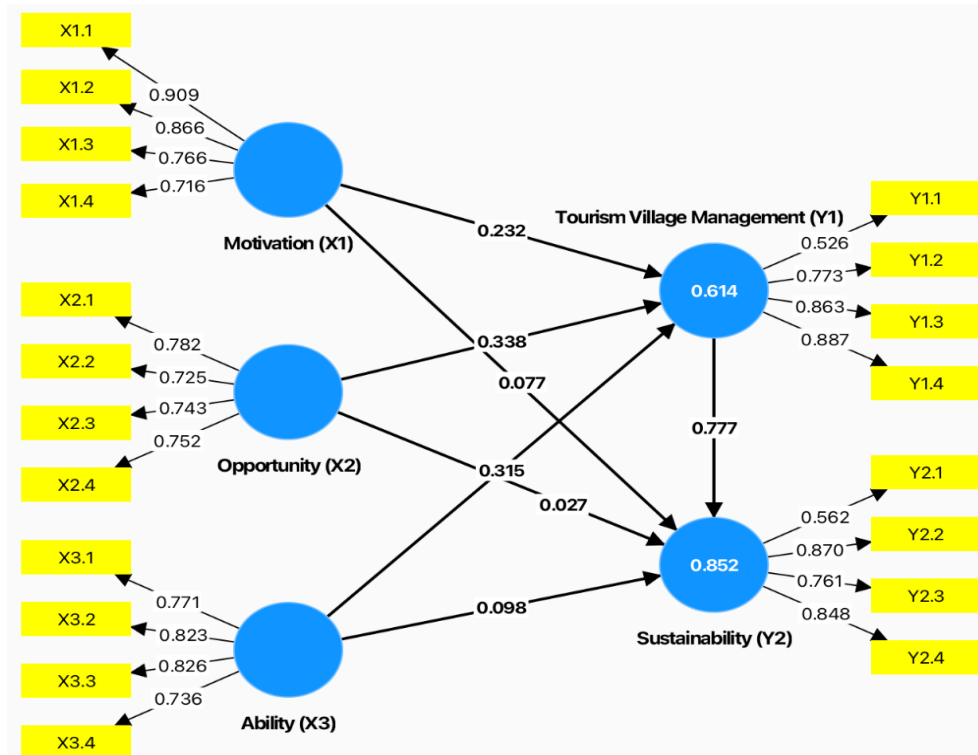


Figure 2. Path coefficients and r-square model, data processed with Smart PLS 4.0, 2024

As shown in Table 3, all constructs have composite reliability values ≥ 0.70 and Cronbach's alpha ≥ 0.70 , indicating that the constructs are reliable (Hair et al., 2019). The AVE (Average Variance Extracted) value for all constructs is ≥ 0.50 , which means that each construct is able to explain more than 50% of the variance of its indicators. Discriminant

validity is tested by comparing the square root of AVE with the correlation between constructs. A higher AVE square root value compared to the correlation between constructs indicates good discriminant validity. These results support that the measured construct has clear discrimination from other constructs.

Table 3. Construct reliability and validity (Data processed with Smart PLS 4.0, 2024)

Construction	Cronbach's alpha	rho_A	Composite reliability	Average Variance Extracted (AVE)
Motivation	0.832	0.847	0.889	0.669
Opportunity	0.742	0.742	0.838	0.564
Ability	0.799	0.808	0.869	0.624
Tourism village management	0.764	0.792	0.854	0.602
Sustainability	0.761	0.787	0.850	0.593

Based on the results of the analysis, the measurement model used meets the criteria of validity and reliability. All indicators are valid with loading factor values above 0.50. The construct is reliable with composite reliability and Cronbach's alpha values above 0.70. AVE shows adequate convergent validity for all constructs. Discriminant validity is confirmed through a comparison of the square roots of AVE. These results indicate that the research instrument has met the criteria for use in further analysis, especially in testing the structural model.

3.3 Structural model results

Structural model testing is conducted to evaluate the relationship between constructs, significance values, and r-square of the research model. The r-square value is used to assess the contribution of independent variables to the dependent variable, thus providing an overview of the strength of the model in explaining data variability.

Based on Table 4, it can be seen that the r-square value for the variable of tourism village management is 0.614 which can be interpreted that the

magnitude of the influence of the variables of motivation, opportunity and ability on the management of tourism village is 61.4% while the remaining 38.6% is explained by other variables outside the model. The r-square value for the sustainability variable is 0.852 which means that 85.2% of the variables of motivation, opportunity, ability, management of tourism village have a major influence on sustainability, while the remaining 14.8% is influenced by other factors outside the model.

Path relationships in the model structural which obtained with procedure *bootstrapping* have value which considered if the t-statistic value is greater than 1.96 (significance level 5%) or greater than 1.65 (significance level 10%) for each path relationship (Ghozali and Latan, 2015; Hair et al., 2019). Table 5 presents the statistical findings of this study.

Table 4. R-square value

	r-Square	r- Square Adjusted
Tourism Village Management	0.614	0.602
Sustainability	0.852	0.846

Table 5. Statistics results (Data processed with Smart PLS 4.0, 2024)

	Variables	Path coefficient	Sample mean	Standard deviation	t-statistics	p-values
H1	Motivation → Tourism Village Management	0.232	0.237	0.108	2.149	0.032
H2	Motivation → Sustainability	0.077	0.072	0.075	1.026	0.305

Table 5. Statistics results (Data processed with Smart PLS 4.0, 2024) (cont.)

	Variables	Path coefficient	Sample mean	Standard deviation	t-statistics	p-values
H3	Opportunity→ Tourism Village Management	0.338	0.344	0.117	2.897	0.004
H4	Opportunity→ Sustainability	0.232	0.031	0.060	0.452	0.651
H5	Ability → Tourism Village Management	0.315	0.311	0.130	2.418	0.016
H6	Ability →Sustainability	0.098	0.094	0.074	1.324	0.185
H7	Tourism Village Management→ Sustainability	0.777	0.781	0.076	10.161	0.000

Below are the results, as related to the original hypothesis and analysis.

- H1 Motivation towards the management of tourism villages indicating that motivation has a positive and significant impact on tourism village management. The path coefficient of 0.232 indicates that increasing motivation will improve tourism village management.
- H2 Motivation towards sustainability indicating that motivation does not have a significant impact on sustainability. The path coefficient of 0.077 indicates a weak and insignificant positive relationship.
- H3 Opportunity in management of tourism villages indicating that opportunity has a positive and significant effect on tourism village management. The path coefficient of 0.338 indicates that greater opportunity can improve tourism village management.
- H4 Opportunity to sustainability indicating that opportunity does not have a significant effect on sustainability. The path coefficient of 0.232 indicates an insignificant positive relationship.
- H5 The ability to manage tourism villages indicating that ability has a positive and significant effect on tourism village management. The path coefficient of 0.315 indicates that increasing ability will improve tourism village management.
- H6 Ability to sustainability indicating that ability does not have a significant effect on sustainability. The path coefficient of 0.098 indicates an insignificant positive relationship.

- H7 Tourism village management on sustainability indicating that tourism village management has a positive and significant effect on sustainability. The path coefficient of 0.777 indicates a very strong relationship, where better tourism village management will strongly improve sustainability.

The structural model results, as presented in [Figure 2](#), highlight the relationships between the independent and dependent variables. The findings confirm that motivation, opportunity, and ability significantly influence tourism village management (H1, H3, H5 are supported). Additionally, tourism village management strongly influences sustainability (H7 is highly significant with $T=10.161$, $p=0.000$). However, H2, H4, and H6 are not statistically significant, indicating that direct relationships between motivation, opportunity, and ability on sustainability require further exploration. Based on the structural model analysis, the relationship between variables shows that motivation, opportunity, and ability have a significant influence on tourism village management, while tourism village management plays a significant role in influencing sustainability. This indicates the importance of strengthening aspects of tourism village management to support environmental sustainability, culture, and socio-economic welfare.

3.4 Discussion

The results of this study provide important insights into the impact of motivation, opportunity, capability, tourism village management and sustainability. The following is an in-depth discussion of each research finding.

3.4.1 *The influence of motivation on tourism village management*

The results of the study indicate that motivation has a significant positive effect on the management of tourist villages (t-statistic=2.149; p-value=0.032). The original sample value of 0.232 indicates a fairly strong relationship. Motivation indicators, such as awareness of preserving the environment, culture, economic potential, and the existence of cooperation and supporting facilities, contribute significantly to the variables of tourist village management. Personal motivation, especially in awareness of preserving the environment, supports the literature which in turn showed that ecological factors play an important role in the success of community-based tourism management (Anaba et al., 2024; Darvishmotevali et al., 2024; Islam et al., 2024). Cultural awareness is also in line with research findings d'Angella and De Carlo (2024), Chinawat (2024), Cuong et al. (2024), which stated that community participation in preserving local culture improves the quality of tourist destination management. Economic potential and supporting facilities are also relevant to the study (Nguyen et al., 2023), confirming that economic opportunity does in fact motivate people to be more actively involved in managing tourist destinations. Thus, the success of tourist village management is highly dependent on understanding what motivates local people to participate. In addition, strong motivation tends to encourage sustainability within effective tourist village management. Figure 3 show the existence of facilities and information boards related to farmer groups managing the Edelweiss Park tourism area. The presence of these groups confirms that community motivation in preserving the environment and culture, as stated in previous studies (Anaba et al., 2024; Darvishmotevali et al., 2024; Islam et al., 2024), plays a crucial role in tourism village management. Their participation in maintaining the local ecosystem, such as the protected Edelweiss flower, demonstrates that environmental awareness is a key factor in managing tourism destinations.

3.4.2 *The influence of motivation on sustainability*

The results of the analysis show that motivation does not have a significant effect on sustainability (t-statistic=1.026; p-value=0.305). The original sample value of 0.077 indicates a weak relationship. Although motivation indicators such as awareness of preserving

the environment and culture have high loading values, this does not directly affect sustainability. This finding is consistent with a study (Islam et al., 2024), which showed that although initial motivation is important, sustainability is more heavily influenced by structural factors, such as policy support and technical skills. In addition, Anaba et al. (2024) stated that individual motivation often fades if it is not balanced with a clear sustainability framework. In this context, it is important to strengthen external factors, such as training and institutional support, so that motivation can be translated into sustainable practices (Darvishmotevali et al., 2024). Although individual motivation is high - as seen in the involvement of community groups in managing Edelweiss Park (Figure 3) - it does not necessarily guarantee sustainability, especially when lacking structural support. This finding aligns with previous studies (Islam et al., 2024), which emphasized that sustainability is more influenced by policies and institutional support rather than solely by individual motivation.

3.4.3 *The influence of opportunity on tourism village management*

Opportunity has a significant positive effect on tourism village management (t-statistic=2.897; p-value=0.004). The original sample value of 0.338 indicates a fairly strong relationship. Indicators such as natural and cultural potential, economic opportunity, employment opportunity, and increased income contribute positively to tourism village management. The relationship of economic opportunity to tourism village management is supported by research (such as Tosun, 2006), which emphasizes that access to it increases community participation. Natural and cultural potential, meanwhile, are the main drivers of the success of community-based tourism management (Ali et al., 2022; Khanh and Phong, 2020; Thomas, 2022; Yilmaz and Anasori, 2022). In addition, increased income is in line with the results of a study (Snyman, 2014), which showed that direct economic benefits from tourism strengthen community involvement in management. Figures 3(b) and (d) highlights the utilization of natural potential and tourism infrastructure which in turn supports village tourism management. Facilities such as gazebos and plant-covered pedestrian paths confirm that natural and cultural potential are key drivers of community-based tourism success (Ali et al., 2022; Khanh and Phong, 2020). These types of infrastructure also support

findings noting that access to economic opportunities increases community participation in tourism management (Tosun, 2006).

3.4.4 The Influence of Opportunity on Sustainability

Opportunity does not have a significant effect on sustainability (t-statistic=0.452; p-value=0.651). The original sample value of 0.232 indicates a weak relationship. This shows that although economic opportunity are available, they are not enough to guarantee long-term sustainability. This finding is consistent with the results of research (Gültekin and Osman, 2019; Vinodan and Manalel, 2019), which state that economic opportunity must be equipped with regulatory and monitoring mechanisms to achieve sustainability. In this context, community capacity development and integrated management policies are important factors (Diamantis, 2018; Panić et al., 2024; Rampheri and Dube, 2021; Saludadez et al., 2022). Although there are evident economic opportunity from managing Edelweiss Park, the figures do not depict a strong regulatory or monitoring system capable of ensuring long-term sustainability. This research consistent with Gültekin and Osman (2019), Vinodan and Manalel (2019), which states that economic opportunity must be accompanied by supporting policies to contribute to sustainability.

3.4.5 The influence of ability on tourism village management

Ability has a significant positive effect on tourism village management (t-statistic=2.418; p-value=0.016). The original sample value of 0.315 indicates a strong relationship. Ability indicators include environmental management, business management, effective communication, and networks and partnerships. Business management ability, in particular, supports the findings of Na thongkaew et al. (2024), Rivera et al. (2024) and Romero-Medina et al. (2024), which state that technical and managerial skills are important foundations in community-based destination management. In addition, effective communication skills are relevant (Hatma Indra Jaya et al., 2024; Kusumastuti et al., 2024; Rivera et al., 2024), which emphasizes the importance of communication in building partnerships between communities and external parties. Figure 3, showing the farmer group and village information board, indicates that community managerial abilities, such as environmental and tourism facility management, play

an essential role in the success of tourism destinations. This supports the findings of Rivera et al. (2024), which highlighted that technical and managerial skills are fundamental in community-based destination management.

3.4.6 The influence of ability on sustainability

Ability has no significant effect on sustainability (t-statistic=1.324; p-value=0.185). The original sample value of 0.098 indicates a weak relationship. This shows that sustainability is not only determined by technical or managerial ability, but also by external factors, such as policy support and financial resources. Research Baloch et al. (2023), Hall (2020), Jaafar et al. (2021) shows that sustainability requires a holistic approach that includes continuing education and the formation of global networks. Therefore, capacity building must be complemented with broader resources and support. Sustainability is not solely determined by technical ability but also by external factors such as policy support and financial resources (Baloch et al., 2023; Hall, 2020).

3.4.7 The influence of tourism village management on sustainability

Tourism village management has a significant positive influence on sustainability (t-statistic=10.161; p-value=0.000). The original sample value of 0.777 indicates a very strong relationship. Management indicators, such as strategic planning, marketing, service, and innovation and technology, all make important contributions to sustainability. This finding supports the literature Abreu et al. (2024), Hariyadi et al. (2024), Rivera et al. (2024), Walkowski (2019), Dilshod et al. (2024), Khusaini et al. (2024), which emphasizes that strategic management is key to ensuring the sustainability of community-based tourism. In addition, research on good service and hospitality support (Hariyanto et al., 2020; Nugroho et al., 2021) shows that tourist satisfaction improves the economic sustainability of a destination. Well-organized tourism facilities (as in Figure 3) further indicate that proper management positively impacts the attractiveness of tourism as well as economic sustainability. This finding is in line with Abreu et al. (2024) and Hariyadi et al. (2024), who emphasized that strategic planning and high-quality services contribute to the sustainability of community-based tourism.



(a) The name board for the Edelweiss Park tourist attraction at the entrance area displays the garden landscape and ornamental plants.



(b) The gazebo area in the tourist site, situated in a foggy environment with natural architectural design.



(c) The name board of the "Hulun Hiyang" farmer group in Wonokitri Village, part of tourism village management in Bromo Tengger Semeru National Park area.



(d) The path with a net tunnel, on both sides of which are cultivated edelweiss seedlings and ornamental plants.

Figure 3. Author documentation, 2024

Overall, the results of this study provide significant contributions to the literature on tourism village management and sustainability, while also serving as a strong foundation for developing strategic policies in the future. The study highlights the importance of community participation, motivation, opportunity, and ability in fostering a sustainable tourism village ecosystem. These findings not only enrich theoretical discussions but also provide practical guidelines for implementation at different stages. To ensure effective implementation of these findings, operational steps can be taken as follows.

(1) Strengthening community capacity and infrastructure: The primary focus in the short term is to enhance community capacity and improve essential infrastructure. Education and training related to environmental conservation, cultural preservation, and business management increase community awareness and skills in managing tourism villages. Additionally,

identifying local opportunities, including sources of natural, cultural, and economic potential, the first step in developing tourism villages based on local wisdom. Improving basic infrastructure, such as road access, waste management, and environmental cleanliness, is also crucial for enhancing tourist comfort and the overall attractiveness of tourism villages.

(2) Application of technology and strengthening partnerships: The focus in this phase shifts to leveraging technology and fostering innovation. Developing digital platforms for promoting tourism villages and integrating environmentally friendly technology in waste management and renewable energy can enhance operational efficiency and sustainability. Strengthening collaborations with stakeholders, including business entities, government bodies, and academic institutions, also establishes a data-driven and research-based tourism village ecosystem. Additionally, strategic marketing and

branding efforts, such as promotional campaigns and unique local experience-based tourism packages, help expand the tourism village's appeal to domestic and international markets.

(3) Sustainable Business Models and Youth Empowerment: In the long term, the sustainability of tourism villages relies on the establishment of sustainable business models and the empowerment of the younger generation. Encouraging entrepreneurship among local youth, fostering innovation in tourism products, and ensuring effective monitoring and evaluation mechanisms helps maintain positive social, economic, and environmental impacts. These steps also ensure that tourism villages continue to develop dynamically, adapting to emerging challenges while preserving their cultural and ecological integrity.

By integrating these phased strategies, this study offers a practical framework for promoting sustainable community-based tourism. The structured approach facilitates the adoption of these findings in different contexts, ensuring that tourism villages remain economically viable, socially inclusive, and environmentally sustainable for the long run.

4. CONCLUSION

The conclusion of the results of this study shows that motivation, opportunity, and ability play an important role in the success of tourism village management and sustainability. Community motivation has been shown to have a positive influence on tourism village management, especially those related to awareness of preserving the environment, culture, and economic potential. However, motivation does not have a significant effect on sustainability, which is more influenced by structural factors and supporting policies. Opportunities, such as natural and cultural potential and economic access, have a positive effect on tourism village management, although these factors do not guarantee long-term sustainability without clear regulatory support. The ability to manage and communicate effectively also shows a significant influence on tourism village management, but does not directly affect sustainability, which requires a holistic approach with broader policy and resource support. Good tourism village management, including strategic planning, marketing, service, and innovation technology, has been shown to have a very strong influence on sustainability. Overall, the results of this study emphasize the importance of community-based management, application of technology and

innovation, and preservation of culture and the environment as keys to the success of sustainable tourism villages. Consistent and collaborative policy implementation also ensures that tourism villages are a model of sustainable development with a positive impact on local communities.

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AUTHOR CONTRIBUTIONS

- Lestari AM (Main Author) designed the methodology, conducted the experiments, processed the data, and wrote the main draft.
- Khusaini M (Supervisor) the main supervisor who provided conceptual guidance, reviewed the manuscript, and approved the publication.
- Sholihah Q (Supervisor) guided the analysis process and critically reviewed the article.
- Ciptadi G (Supervisor) reviewed the article and provided critical input.

DECLARATION OF COMPETING INTEREST

No potential conflict of interest was reported by the authors.

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