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RESEARCH ARTICLE

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Development Strategy for Pioneer Tourism Village, Oro-Oro Ombo, East Java

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ABSTRACT

The Oro-oro Ombo Pioneer Tourism Village in Batu City, East Java, has significant potential for development as a tourist destination. This study provides clear recommendations for prioritizing alternatives in developing the tourism Village. The Analytic Hierarchy Process (AHP) method is used to identify the factors influencing the development of the tourism village and determine the priority development strategies. This research involves ten respondents representing the Penta helix group: Academics, Business, Community, Government, and Media. Based on the highest and lowest AHP weight values, the research results indicate that local community participation and tourist satisfaction are the key factors. Simultaneously, the results show that the waterfall destination is the main priority alternative (29.9%), followed by the Apple Garden (25.5%), Camping Ground (23.3%), and Flower Garden (21.3%). The study concludes that local community participation is the highest criterion. At the same time, the waterfall destination is the preferred development choice for the Oro-oro Ombo Pioneer Tourism Village in Batu City, East Java. Sustainable development can be achieved by involving the community in decision-making, ensuring environmental conservation, and offering eco-friendly services. Therefore, the policy implication is that local governments should prioritize community engagement, allocate resources for sustainable infrastructure, and support responsible tourism practices.

Introduction

The Oro-oro Ombo pioneer tourism village in Batu City, East Java, is a strategic initiative that captures multiple considerations, including community involvement, local resources employment, and information technology. There are at least four popular tourist sites in the area, each characterized by different attractions: Apple Garden, Flower Garden, Waterfall, and Camping Ground. For example, Apple Garden appeals to tourists who want an agricultural experience, and the Flower Garden can provide an element of natural beauty that contributes to visual interest [1,2].

One of the resources that can serve as a tourist destination is a Waterfall, which can attract tourists who love adventure and natural attractions. The camping facilities cater to those who enjoy outdoor camping. Developing a pioneer tourism village in this context is a strategic plan and a collective work that needs to involve the local population. Studies reveal that the active participation of the communities in all the various development levels, including the planning and implementation, is essential and central to developing a sense of ownership and responsibility towards the sustainability of the tourism village [2,3]. An example is the case of tourism villages, where social support, coupled with that of the community and government, has been found to increase the effectiveness of tourism village development [1,4]. Also, the independence and sustainability of developing tourism villages could be improved when the Community-Based Tourism (CBT) approach, as a community-oriented alternative, is applied [5–7].

It is also essential in creating infrastructure and support facilities. Studies have also indicated that when tourism villages are fitted with proper facilities and infrastructure, including accommodation and

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accessibility, the attractiveness of the tourism villages would be boosted [8,9]. Also, when digital technology is used in marketing the tourism villages, it increases exposure and tourist visiting patterns [8,10,11].

Through the online platforms, the tourism village administrators will have access to a larger audience and a greater impact in selling the destination's potential. The principal issue with this study is that the much-needed effective collaboration and coordination between the key stakeholders in developing the tourism villages did not work effectively, as the government, the community, and the private sector are the combined key stakeholders. This has not been cooperative and has hindered the development of an enabling framework towards sustainable tourism. This study suggests that government regulations should be taken seriously to ensure a smooth collaboration process among various parties, thereby preventing anyone from being left behind. This approach aims to achieve the overall success of the tourism village, which can benefit both the economy and the community involved. Multiple stakeholders, including the government, community, and private sector, must collaborate to establish an ecosystem that supports the growth of tourism villages. It has been observed that the effective management of tourism villages can be improved through good coordination among stakeholders [6,12]. Thus, the government should initiate regulations that can mediate all parties' work in developing tourism villages. Overall, pioneer tourism village development is not a mere project but a vision to change the world's future. With the adoption of these strategies, tourism villages are expected to benefit the community through sustainable development, providing substantive economic and social benefits to the tourism host, as well as enhancing optimism and hope for the future.

This research is new because it uses the Analytic Hierarchy Process (AHP) to prioritize the development strategies of Oro-oro Ombo Pioneer Tourism Village, Batu City, East Java. Community involvement and local resources, such as infrastructure development, are central themes and the scope of tourism application; however, the work adopts an AHP type of study to determine and analyze various tourism solutions and rank them as well, e.g., the Apple Garden, Flower Garden, Waterfall, and Camping-ground. This process enables a well-organized analysis of criteria, creates more efficient decision-making, and incorporates proper community attributes and long-term sustainability plans into development priorities, which provides competent and data-based tourism planning endeavors.

AHP may also identify development priorities using given criteria to compare choices. Here, a relative ranking of each alternative is involved, which is further calculated to provide the priority with weights. Past studies have indicated that AHP can be used in developing tourism villages to develop more effective and efficient strategies [13,14]. The research will pursue the following objectives: To examine the different factors playing roles in tourism growth within pioneer villages in Oro-Oro Ombo, East Java. To develop diverse strategic options that may be employed to make tourism appealing and sustainable in pioneer villages in Oro-Oro Ombo, East Java.

Materials and Methods

Time and Location

The study was conducted in a pioneer tourism village called the Oro-Oro Ombo in Batu City, East Java (Figure 1). The study was done in July and August 2024. This site was selected because it provides a foundation for development strategies that optimize local opportunities, facilitate and encourage economic development, promote sustainable preservation, and enhance the culture and environment. The reasons why its developmental strategy is critical to select the Oro-Oro Ombo pioneer tourism village include the following factors: the variety of natural and cultural attractions, accessibility to Batu City, the possibility of local economy development, maintenance and development of local culture, people participation in tourism management, development of infrastructure and facilities, and environmental and sustainable responsibility.

Oro-Oro Ombo Village offers a range of natural and cultural tourism attractions that cater to various tourist interests. For example, scenic spots, natural landscapes, such as mountains and gardens, and the opportunity to transform local products and culture. This enables the creation of a tourist village that may entail offering visitors authenticity and variety of experiences. The location of Oro-Oro Ombo in Batu has some merits and demerits as far as accessibility is concerned. Batu City is among the famous tourist sites in East Java; hence, it has a chance to take advantage of the city's tourist traffic. Having Oro-Oro Ombo as an additional destination would enhance the length of stay and expenditure among tourists. Oro-Oro Ombo can spur the local economy by establishing itself as a tourism village. It involves opening new employment opportunities, the rise of community revenue via tourism trips, and the emergence of small and medium-sized companies in the tourism sector.

Promoting tourism villages will offer incentives to preserve and showcase a unique local culture for visitors. It is also helpful in keeping the local community traditions and customs and enhances awareness and admiration of the local culture among tourists. A tourism village provides opportunities for local communities to be directly involved in the management and development of tourism. Active community participation in various aspects of development can enhance the sense of ownership and responsibility for the success and sustainability of tourist destinations. Focusing on the development of tourism villages will encourage the improvement of infrastructure and facilities in Oro-Oro Ombo. This not only supports the needs of tourists but also benefits the local community in terms of accessibility and quality of life. A good development strategy should consider the aspects of environmental sustainability. Oro-Oro Ombo can become a model tourism village that applies environmentally friendly principles, maintains natural beauty, and ensures that the environmental impact of tourism is minimized.

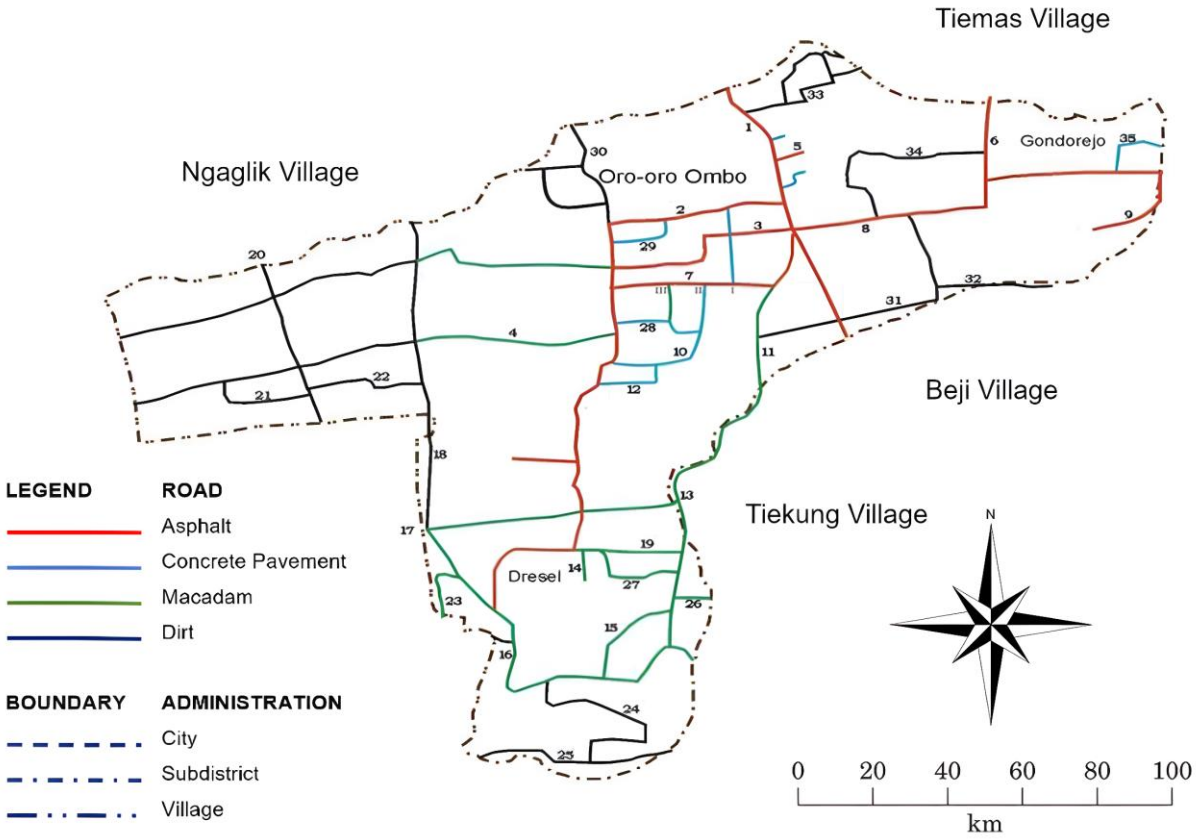


Figure 1. Study location for the development strategy of pioneer tourism in Oro-Oro Ombo Village, East Java.

Data Collection Methods

The data collection methods employed included surveys, interviews, and observation techniques using a Focus Group Discussion (FGD) approach. The collected data consisted of primary and secondary data. Primary data were obtained from the AHP questionnaires, field observations, and expert interviews. The types of data used in this research include secondary data obtained through literature studies and reports from various related agencies in the Department of Tourism and Sports of Batu City Government. The questionnaire was administered to key stakeholders, including village institution leaders, tourism community organizations, academics, media, and tourism investors. A total of 10 experts were interviewed, and primary data were collected through questionnaires and direct interviews.

Analytical Hierarchy Process

The pairwise comparison scale in the Analytic Hierarchy Process (AHP) method is a tool used to compare elements in pairs based on specific criteria [15,16]. This scale facilitates the determination of the priority or relative weights of the compared elements. Table 1 presents the AHP pairwise comparison rating scale. As shown in Table 1, the pairwise comparison scale provided a range of importance levels to be evaluated. The scale ranged from 1 to 9, representing levels equal to extreme importance.

Table 1. Pairwise comparison scale to obtain analytic hierarchy process (AHP) weight values.

Scale	Description	Explanation
1	Equally important	Both elements are considered equally important
3	Slightly more important	The first element is slightly more important than the second
5	More important	The first element is clearly more important than the second
7	Much more important	The first element is much more important than the second
9	Extremely more important	The first element is extremely more important than the second
2, 4, 6, 8	Intermediate values	Intermediate values between the two adjacent judgments

Hierarchy Structuring

The problem to be solved is broken down into its elements, namely, criteria and alternatives, and structured into a hierarchy. The following diagram illustrates the decision to select a more suitable group or informal institution for implementing the reclamation of former pumice mining land. The goal of this decision is to develop a strategy for the Oro-Oro Ombo Pioneer Tourism Village in Batu City, East Java.

Figure 2 presents the hierarchical structure used in the Analytical Hierarchy Process (AHP) for decision-making in the Development Strategy of Pioneer Tourism in Oro-Oro Ombo Village, East Java. The top of the hierarchy is the overall goal of tourism development in villages. Below this goal are the various criteria (E1 to E10) that influence the decision-making process, such as local community participation, frequency of news coverage, innovation in tourism management, regulations and policies, research on tourist villages, availability of public facilities, media coverage and reach, level of investment, environmental management, and tourist satisfaction. These criteria are evaluated by different stakeholders (A1 to A5), including academics, businesses, communities, the government, and the media. The bottom level of the hierarchy consists of specific projects or attractions (P1–P4), such as the Apple Garden, Flower Garden, Waterfall, and Camping Ground, which are potential foci for development. This structured approach helps systematically evaluate and prioritize different factors and projects to achieve the overarching goal of enhancing tourism in the village.

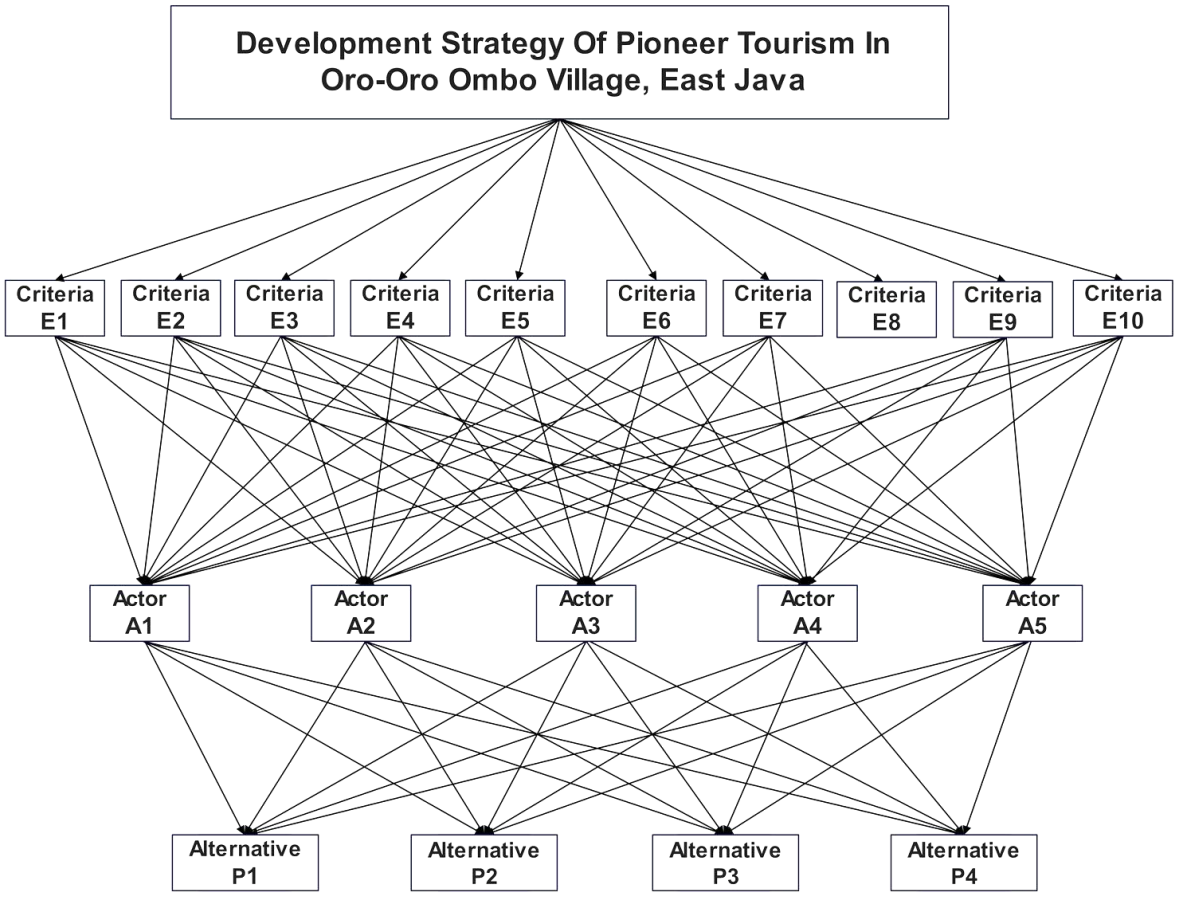


Figure 2. Hierarchical structure for the development strategy of pioneer tourism in Oro-Oro Ombo Village, East Java, using the AHP approach.

Based on the Figure 2 above, the following is a description of the Criteria Codes: E1 is Local community participation, E2 is Frequency of news coverage about tourist villages, E3 is Innovation in tourism management, E4 is Regulations and policies, E5 is Research on tourist villages, E6 is Availability of public facilities, E7 is Media coverage and reach, E8 is Level of investment in the village tourism sector, E9 is Environmental management, E10 is Tourist satisfaction. The actor codes A1, A2, A3, A4, and A5 are academics, businesses, communities, governments, and media, respectively. Alternative codes: P1 Apple Garden, P2 Flower Garden, P3 is Waterfall, P4 Camping ground. For each criterion and alternative, pairwise comparisons must be performed, as shown in Figure 1. The hierarchical structure of the decision-making process by stakeholders is then processed to determine the relative ranking of all alternatives. Qualitative and quantitative criteria can be compared to predetermined judgments to produce weights and priorities.

The AHP method, which provides a structured approach to evaluating criteria, uses a quantitative scale for pairwise comparisons ranging from one to nine. This scale is used to assess the importance of one element relative to another [15,16], as shown in Table 1 above. Subsequently, Equations 1 to 5 present the steps for calculating weights and determining component weights using the AHP method, which is acceptable if the CR value ≤ 0.1. The first step in developing a pioneering tourist village is to design an appropriate management strategy for the sustainability of each component. The condition of a pioneering tourist village can be assessed by determining its sustainability management condition index value. The condition index is a combination of the condition values of two or more components multiplied by the weight of each component [15,16].

$$W_1 = \sqrt[n]{a_{11}\ x\ a_{12}\ x \dots a_{1n}} \quad (1)$$

$$X_i = \frac{W_i}{\sum W_i} \quad (2)$$

$$\lambda_{max} = \sum a_{ij} - X_i \quad (3)$$

$$CI = \frac{\lambda_{max}-1}{n-1} \quad (4)$$

$$CR = \frac{CI}{RI} \quad (5)$$

Where, W_1 is the geometric mean of the entries in row 1 of the pairwise-comparison matrix (the unnormalized weight for criterion 1); a_{1n} is the element of the matrix in row 1, column *n—i.e.*, the judged importance of criterion 1 relative to criterion n on the Saaty scale; X_i is the normalized priority weight of criterion i, obtained by dividing its geometric mean; W_i is the unnormalized weight for criterion *i* (geometric mean of row *i* as above); λ_{max} is the maximum eigenvalue of the pairwise-comparison matrix A. In practice it's computed as the average of the consistency vector, a_{ij} is the entry in row *i*, column *j* of A, representing the judged importance of criterion i relative to criterion j; CI is Consistency Index; n is the size of the matrix (number of criteria being compared in that matrix); CR is Consistency Ratio; and RI is Random Index, with values by matrix size: 1=0.00, 2=0.00, 3=0.58, 4=0.90, 5=1.12, 6=1.24, 7=1.32, 8=1.41, 9=1.45, 10=1.48, 11=1.49, 12=1.51, 13=1.56, 14= 1.57.

Results and Discussion

Results

Table 2 shows that, based on the combined analysis of opinions from 10 respondents representing the Penta helix group, it is evident that local community participation is the highest criterion with a weight value of 0.188, or equivalent to 18.8% of the total criteria. This underscores the pivotal role of the local community in the development strategy of the Oro-Oro Ombo Pioneering Tourist Village in Batu City, East Java. The active involvement of the local community is not just a criterion but a key to the sustainability, relevance, and effectiveness of tourism programs. Involving them in decision-making increases local support, minimizes conflicts, and leverages local knowledge. The second highest criterion is the frequency of news coverage about the tourist village, with a criterion weight of 0.169 or 16.9%. Intensive coverage increases the visibility and attractiveness of the tourist village, attracting more visitors and investment. Frequent news reporting on village developments supports promotional strategies and the success of tourism development. The amount of news covered during the study period was once a week on average.

The third quality is Innovation in tourism management with a criterion weight of 0.139 or 13.9% percent. This criterion will underline the need to consider new and creative methods of managing the tourism activities within the village. The novelty in tourism management may encompass innovations of new technologies,

novel marketing approaches, and innovative tourism products that can change visitor experience and distinguish the village among alternative tourism destinations. This innovation orientation contributes to keeping the tourism services up to date and competitive to reach more visitors and enhance sustainability.

Table 2. AHP weight calculation results for the development strategy of pioneer tourism in Oro-Oro Ombo Village, East Java.

Component	Weight	Element	Weight	Alternative	Weight
Local community participation	0.1880	Academics	0.1290	Apple Garden	0.2720
		Business	0.3530	Flower Garden	0.1720
		Community	0.2500	Waterfall	0.2860
		Government	0.1260	Camping Ground	0.2700
		Media	0.1420		
Frequency of news coverage about tourist villages	0.1690	Academics	0.0920	Apple Garden	0.2250
		Business	0.2720	Flower Garden	0.2310
		Community	0.1470	Waterfall	0.3230
		Government	0.3770	Camping Ground	0.2200
		Media	0.1120		
Tourism management innovation	0.1390	Academics	0.1180	Apple Garden	0.2810
		Business	0.1500	Flower Garden	0.1680
		Community	0.3600	Waterfall	0.3370
		Government	0.1810	Camping Ground	0.2140
		Media	0.0910		
Regulations and policies	0.1230	Academics	0.1040	Apple Garden	0.1910
		Business	0.2210	Flower Garden	0.1200
		Community	0.1950	Waterfall	0.4180
		Government	0.3710	Camping Ground	0.2710
		Media	0.1090		
Tourist village research	0.0960	Academics	0.1950	Apple Garden	0.2780
		Business	0.1400	Flower Garden	0.2930
		Community	0.0920	Waterfall	0.2190
		Government	0.3380	Camping Ground	0.2100
		Media	0.2360		
Availability of public facilities	0.0800	Academics	0.1130	Apple Garden	0.3210
		Business	0.2850	Flower Garden	0.1100
		Community	0.1290	Waterfall	0.3490
		Government	0.3760	Camping Ground	0.2210
		Media	0.0960		
Media coverage and reach	0.0650	Academics	0.0730	Apple Garden	0.2080
		Business	0.2460	Flower Garden	0.2420
		Community	0.1770	Waterfall	0.3070
		Government	0.1440	Camping Ground	0.2430
		Media	0.3610		
Investment level in the village tourism sector	0.0580	Academics	0.1140	Apple Garden	0.1990
		Business	0.3640	Flower Garden	0.2230
		Community	0.1590	Waterfall	0.3020
		Government	0.2670	Camping Ground	0.2750
		Media	0.0960		
Environmental management	0.0430	Academics	0.1680	Apple Garden	0.3360
		Business	0.1750	Flower Garden	0.2060
		Community	0.1960	Waterfall	0.1250
		Government	0.3790	Camping Ground	0.3330
		Media	0.0830		
Tourist satisfaction	0.0390	Academics	0.1680	Apple Garden	0.1110
		Business	0.1280	Flower Garden	0.4090
		Community	0.2470	Waterfall	0.2950
		Government	0.3580	Camping Ground	0.1840
		Media	0.1000		

Regulations and policies are the fourth criterion with a criterion weight of 0.123 or 12.3 percent, which is also significant in the sustainability of the tourist village. Supportive policies contribute to the organization, finances, and marketing of the tourist village, allowing its operation to be within the law and establishing a friendly environment in which the tourism sector in the tourist village can grow and sustain itself. Such focus

on rules and policies provides the audience with a perception of safety and faith in terms of the sustainability of the tourist village. The existing policies significantly contribute to meeting a set of laws and establishing a positive environment for developing tourism. Nevertheless, besides the development facilitation, the policies must enhance stakeholder cooperation, foster sustainable tourism, improve infrastructure development, provide investment incentives, and maintain the local culture. Additionally, capacity building programs and public-private partnerships require encouragement to optimize economic and social gains and facilitate sustainable considerations.

Research on tourist villages ranks fifth with a criterion weight of 0.096 or 9.6%. In-depth research provides accurate data on visitors' potential, needs, and preferences, enabling more effective planning, evidence-based decision-making, and the formulation of more targeted and successful strategies. The availability of public facilities ranks sixth with a criterion weight of 0.080 or 8.0%. Facilities such as adequate transportation, sanitation, and accommodation enhance the comfort and satisfaction of tourists, support tourism growth, and create a positive and sustainable experience. The Media Coverage and Reach criterion is followed in seventh place, with a criterion weight of 0.065 or 6.5%. Extensive and diverse media exposure increases the visibility of tourist villages, attracts more visitors, and strengthens the image and promotion of the destination, thereby supporting the success and sustainability of tourism development.

The eighth criterion is the Level of Investment in the village tourism sector, which has a criterion weight of 0.058 or 5.8%. High investment supports infrastructure development, facility improvement, promotion, and job creation. It accelerates the growth and sustainability of tourist villages as premier destinations. The ninth criterion is Environmental Management, with a criterion weight of 0.043 or 4.3%. Good management ensures the preservation of nature and environmental quality, supports tourist attractions, and provides a sustainable experience for visitors. It is crucial for the long-term success and appeal of tourist villages. The final criterion is tourist satisfaction, which has a criterion weight of 0.039 or 3.9%. High satisfaction reflects the quality of the experience, increases positive reviews, and encourages repeat visits. Prioritizing satisfaction ensures development that focuses on the needs and expectations of visitors, supporting the long-term success of tourist villages.

Inconsistency Ratio (CR)

The inconsistency ratio, or the inconsistency ratio of expert respondents' data, checks whether pairwise comparisons have been made consistently. The data inconsistency ratio is considered good if the CR value is <0.1 [15,17]. It can be concluded that the pairwise comparisons provided by expert respondents have an inconsistency ratio value of less than 10%, with the maximum inconsistency ratio value being 0.09 for Criteria and 0.07 for Alternatives. Thus, the combined geometric calculation of the respondents' data is consistent [16,18].

Figure 3 presents the weights of criteria and alternatives in the development strategy for Orombo Tourism Village, as determined through an analytical process. The criteria listed reflect various aspects crucial for the village's tourism development, such as local community participation, innovation in tourism management, environmental management, and tourist satisfaction, among others. Each criterion has been assigned a weight, indicating its relative importance in the overall strategy. For instance, local community participation holds the highest weight (0.188), underscoring its significance in ensuring the sustainability and authenticity of the tourism experience. This is followed by the frequency of news coverage (0.169) and innovation in tourism management (0.139), highlighting the importance of visibility and innovative practices in attracting and retaining tourists.

The alternatives for development, such as Waterfall, Apple Garden, Camping Ground, and Flower Garden, have also been weighted to prioritize their implementation. Waterfall has the highest weight (0.299), suggesting it is the most favorable option for development, likely due to its potential to attract tourists and its natural appeal. Apple Garden (0.255) and Camping Ground (0.233) follow, indicating their substantial but slightly lower priority. Flower Garden, with a weight of 0.213, is considered the least prioritized among the alternatives, though still significant. The overall inconsistency value of 0.07 indicates a high level of consistency in the judgments made during the analysis, ensuring that the weights assigned are reliable and logically coherent. This structured approach facilitates informed decisions that balance various factors essential for the successful development of Orombo Tourism Village.

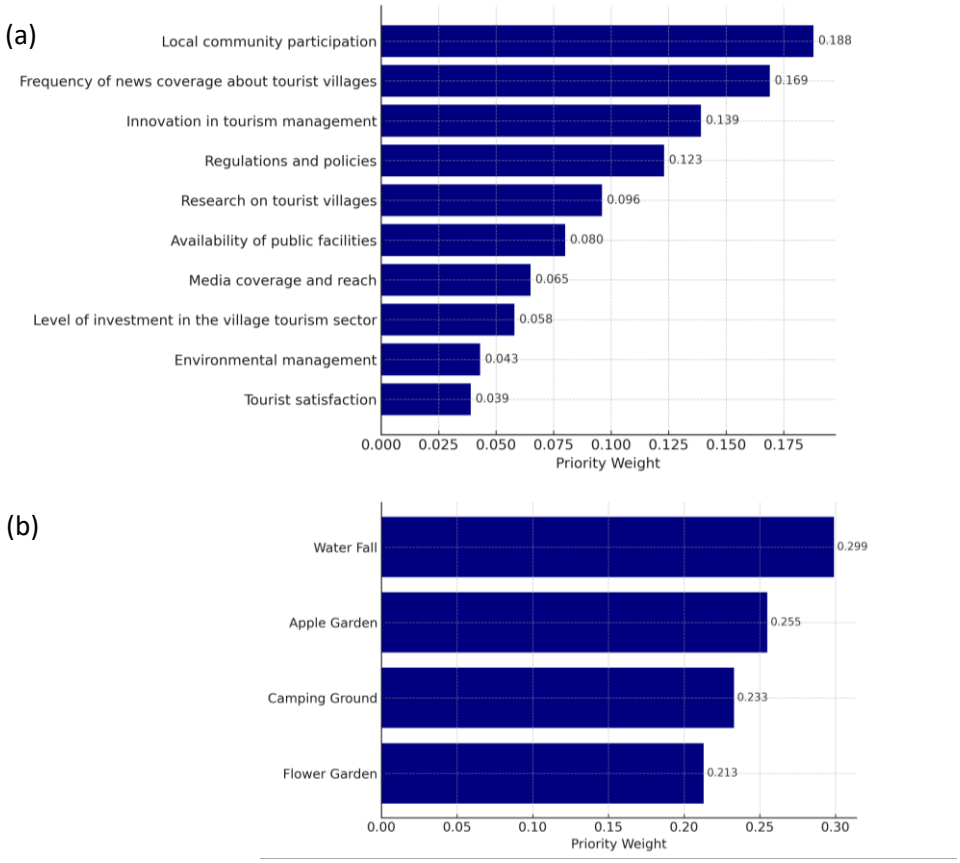


Figure 3. (a) The priority weight value and (b) alternative results of the AHP calculation for the development strategy of pioneer tourism in Oro-Oro Ombo Village, East Java.

Sensitivity Analysis

This sensitivity analysis shows the complexity of developing a pioneering tourist village where no single approach excels in all aspects. It underscores the importance of flexible and adaptive strategies, focusing on community participation, innovation, supportive policies, and appropriate investment. Decision-makers must consider trade-offs between various criteria and adjust strategies based on local conditions and priorities.

The sensitivity analysis of the pioneering tourist village development depicted in Figure 4 is divided into four performance conditions: (1) Significant Fluctuations: All alternatives show significant fluctuations across various criteria, indicating high sensitivity to changes in criterion weights. (2) Intersection Points: There are several points where lines intersect, indicating changes in evaluating alternatives on specific criteria. (3) Relative Dominance: No single alternative consistently dominates the others across all criteria, indicating the complexity of decision-making in tourist village development. (4) Extreme Variations: Some alternatives show extreme variations on specific criteria, such as sharp spikes in the "Investment Level" criterion for the red alternative.

In Figure 4, further explanations for the analysis per alternative are (1) Green Alternative (Green Line): Shows relatively stable performance across most criteria. Advantages in the "Participation" and "Visit Frequency" criteria. Low performance in "Investment Level". (2) Blue Alternative (Blue Line): Moderate fluctuations across most criteria, the best performance in "Research" and "Investment Level," and the lowest performance in "Media Coverage and Reach." (3) Red Alternative (Red Line): Shows the most extreme fluctuations. Excellent performance in "Investment Level" and "Tourist Satisfaction." Deficient performance in "Research" and "Media Coverage and Reach". (4) Purple Alternative (Purple Line): Shows relatively consistent performance across most criteria. Advantages in "Management Innovation" and "Regulations and Policies." Low performance in "Tourist Satisfaction."

Figure 4 shows that, in general, the development options for the Oro-oro Ombo pioneer tourist village by many stakeholders representing the Penta helix groups, namely Academics, Business, Community, Government, and Media. Based on ten criteria, namely local community participation, frequency of news

coverage about the tourist village, tourism management innovation, regulations and policies, tourist village research, availability of public facilities, media coverage and reach, investment level in the village tourism sector, environmental management, and tourist satisfaction, it is known that the most chosen alternatives in succession are waterfall, apple garden, camping ground, and flower garden.

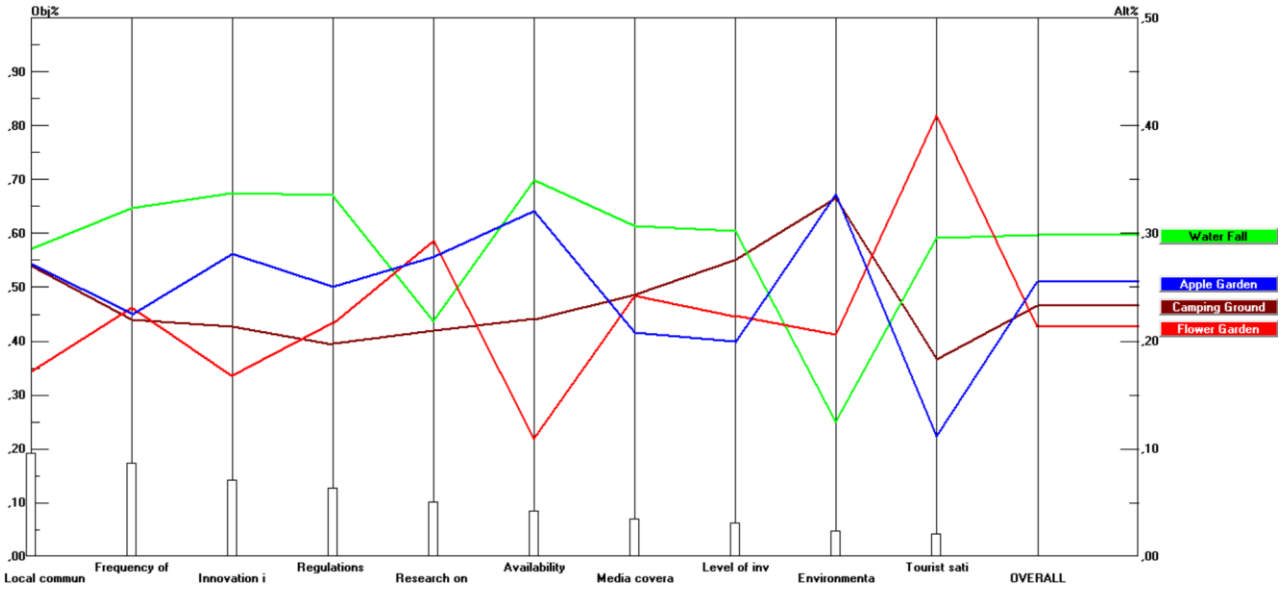
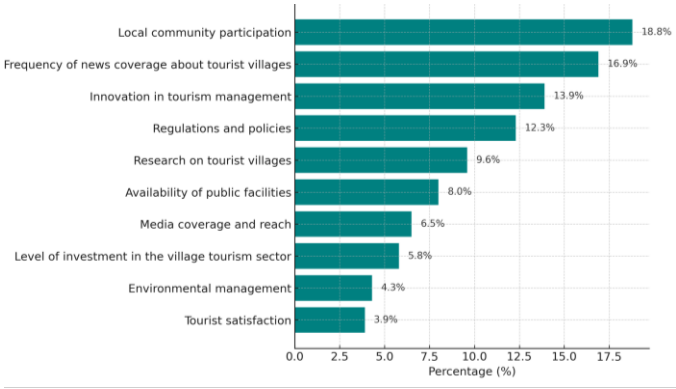
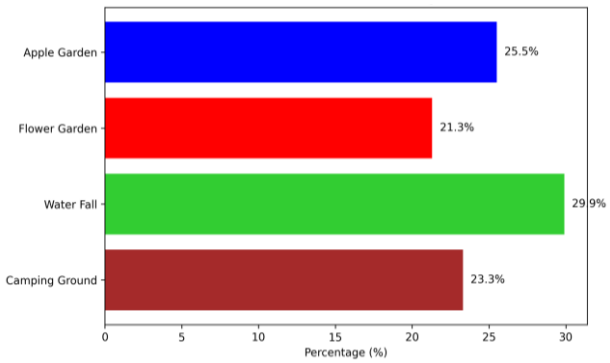


Figure 4. Performance graph of the AHP calculation for the development strategy of pioneer tourism in Oro-Oro Ombo Village, East Java.

By dragging the priority goals back and forth in the left column, the alternatives' priority will change in the right column. Suppose decision-makers think a goal might become more or less important than initially stated. In that case, they can shift the goal bar to the right or left to increase or decrease the goal priority and see the impact on the alternatives (Figure 5).



(a)



(b)

Figure 5. (a) Factors influencing tourist villages and (b) Tourist attractions percentage of the AHP calculation for the development strategy of pioneer tourism in Oro-Oro Ombo Village, East Java.

Figure 5 on the left shows the highest criteria chosen by stakeholders for the priority development of the Oro-oro Ombo pioneer tourist village are Local community participation, Frequency of news coverage about the tourist village, Tourism management innovation, Regulations and policies, Tourist village research, Availability of public facilities, Media coverage and reach, Investment level in the village tourism sector, Environmental management, and Tourist satisfaction. On the other hand, the development of the Oro-oro Ombo pioneer tourist village, chosen by stakeholders based on the four alternatives, is Waterfall (29.9%), Apple Garden (25.5%), Camping Ground (23.3%), and Flower Garden (21.3%).

Discussion

This sensitivity analysis provides deep insights into the dynamics of developing a pioneer tourist village. The graph shows that each alternative has different strengths and weaknesses depending on the criteria. It underscores the complexity of decision-making in this context. One of the main points is that (1) there is no universal solution in constructing pioneer tourist villages. The ability to adjust and change strategies and the intensity of sensitivity to different standards is vital. The primary considerations would be (3) Community participation, innovation, supportive policies, and appropriate investment. The decision-making must consider the trade-offs between multiple criteria, and different methods may be required to meet other goals of tourist village development. Figure 3 demonstrates that a high level of sensitivity to different criteria agrees with the past reports that have pointed towards the relevance of flexibility in a tourist village development approach [19,20].

According to these studies, healthy tourist villages can respond to the changes in travellers' preferences and the market soon. Different aspects of the Oro-oro Ombo pioneer tourist village development options are addressed. In this study, the green alternative scoring results on the Local Community Participation criterion were consistent with some of the previous research findings that affirmed the community's involvement as a vital element in establishing sustainable tourist villages [21]. This paper has thus established that the participation of the local community plays a direct role, making the tourist experience more authentic and helping the local economy to grow. Results on the purple alternative on the Management Innovation also confirm past studies that point to innovation and technology adoption's critical role in increasing tourist villages' competitiveness [22,23]. Figure 3 demonstrates the significance of the category of Regulations and Policies based on the purple alternative performance. These findings are comparable to other research on the effects of government policies on developing tourist villages [6,24]. The research paper points out that the regulatory environment plays a pivotal role in quickly kicking off investment and the sustainability of tourist villages. Lastly, the very diverse score of the criterion of Investment Level indicates the increased importance of investment represented in the preceding research findings. The study determined that proper investment in holding tourist facilities and infrastructure is the central factor in improving tourist villages' appeal and tourism capacity [2,20].

Using Table 4, the graph of the AHP (Analytic Hierarchy Process) results helps give the priorities on the development of tourist villages, as the focus should also be on the community, inculcation of innovation, and nature-based attractions. Nevertheless, it is possible to emphasize the aspects of environmental sustainability following the world trends related to sustainable tourism. The following is a discussion of the AHP results for the tourist village. Local community participation is placed first, with 18.8 percent. It can be compared to the earlier findings, highlighting the necessity of community engagement in sustainable tourism development. One priority in sustainable tourism development is community participation, where the community is involved and shares in any benefits of tourism, thus feeling a sense of ownership and stewardship. This conforms to the participatory development theory, which holds that when the community members are involved in making critical decisions, more sustainable and culturally appropriate results are achieved. By actively involving the locals, there are higher chances that they will stick with and sustain the tourism efforts and hence, little chances of rejection or hostility. Community involvement also has the potential to improve the authenticity of the tourist experience since the locals depict the culture and traditions more poorly.

This is also a strategy of economically empowering the residents by giving them a platform to air out their concerns and aspirations, eliciting social equity. This study reveals that up-to-date involvement of the local community will improve the quality of the tourist experience and help in the local economic development [21]. The prevalence of nature-based attractions (Apple Garden, Flower Garden, Waterfall) is congruent with other trends that other studies about nature-based tourism have noted. According to these studies, there has been a high change in the number of people interested in nature tourism in rural space, particularly following the 2020 COVID-19 pandemic, because it is perceived to be safer and it is perceived to be more authentic [6,7].

The third one is tourism management innovation (13.4%), which indicates the relevance of creativity in developing a tourist village. This is because innovation is essential in improving tourist destinations' competitiveness in the countryside, including touring during transitions in tourist preferences and post-pandemic [22,25]. The prevalence of nature-based attractions (Apple Garden, Flower Garden, Waterfall) is congruent with other trends that other studies about nature-based tourism have noted. According to these studies, there has been a high change in the number of people interested in nature tourism in rural space,

particularly following the 2020 COVID-19 pandemic, because it is perceived to be safer and it is perceived to be more authentic [26,27].

The chosen destinations, including the Angel Garden, Flower Garden, and Waterfall, focus on the alignment with nature tourism tendencies, which have become a trend in the wake of the pandemic and the changes towards safer and more genuine travel. Such decisions demonstrate familiarity with sustainable tourism because they aim to preserve the surrounding nature and provide valuable offers. The focus on the involvement of the local community as the top priority follows the principles of sustainability because it means that the tourism development can directly benefit locals, who can develop the feeling of ownership and responsibility [26,28]. Moreover, nature-based attractions need to be given preference in such a way that environmental protection is achieved, and at the same time, opportunities are offered within the economy.

Although environmental management lags (4.3%) in the study, it is necessary to enhance its involvement as a part of the overall development strategy. This rank is low, implying that even though sustainability is essential, it has not been completely incorporated into the decision-making process. In line with sustainable management of resources, tourism development should consider eco-based infrastructure, waste disposal facilities, and conservation. The longevity of such destinations will be key, and this will involve ensuring that any development of attractions based on nature is done in a manner that does not cause undue effect on the environment [28,29].

This difference shows that there is a need to pay more attention to sustainable environmental management practices in the development of the tourist village [1,3,24]. As it is found in Figure 4, under the general factor or graph results in regulation and policy (12.3%), it can be identified that there was an appreciation of the need for an adequate legal structure in place. Balanced policies would help speed up the establishment of villages to become a tourist attraction and disseminate the benefits fairly to the local people [30,31].

In light of the study's findings, the present recommendations are made to policymakers and practitioners: (1) Policy support: Prepare and implement the policy to promote sustainable tourism behaviours, including environmental management, to encourage long-term sustainability and resiliency to external shocks. In that regard, policies should emphasize environmentally friendly infrastructure, waste management systems, and conservation, and involve the local communities in policymaking. The gaps will be closed by strengthening regulatory frameworks to enforce the implementation of sustainable practices and provision of incentives for green measures to create resilient and inclusive tourism development that is in tandem with global sustainability objectives. (2) Tourism development: Power of the community: Empower the local people's role in planning, developing, and running tourist destinations to make tourism development and management authentic and promote equal distribution of gains. Local stakeholders, including residents, indigenous groups, women, youth, and small business owners, must be actively involved in areas where they should be strengthened to reinforce community participation. Creating community-based tourism committees will help to distribute benefits adequately and develop a feeling of ownership. Local entrepreneurship has to be stimulated, and training on sustainable practices should be administered to ensure that the tourism development process is balanced in terms of the community and the authenticity of the culture. (3) Infrastructure investments: Incorporate investments into building more infrastructure and facilities that are friendly to visitors and their experience, as well as friendly to the environment. The existing policies are also commonly not specific on their investments in environmentally friendly new infrastructure, including eco-friendlier energy systems, water-efficient facilities, and transportation systems with low negative impact. The funding policies must focus on building sustainable construction, waste management systems, and green spaces. Moreover, the gaps could be filled by enhancing eco-certification standards and encouraging the entry of the private sector into green infrastructure development projects because tourism development has to be made sustainable in terms of catering to the needs of the visitor and sustaining the environment. (4) Promote innovative management and digital solutions to improve competitiveness and performance and keep up with market demands, especially in rural systems. The practitioners can embrace digital technology like Geographic Information Systems (GIS) in planning a sustainable site, mobile applications to manage visitors, and virtual reality (VR) to market destinations. Furthermore, e-commerce of local products can be more intelligent than traditional waste-management systems, renewable energy solutions, and innovative waste management to be more efficient and sustainable. Such innovations that have not yet been applied may enhance competitiveness, minimize the effect on the environment, and align well with the changes in the marketplace, requiring rural tourism.

Conclusions

The research conclusions indicate that local community participation is the highest criterion, while the waterfall tourist destination is the preferred development choice for the Oro-oro Ombo pioneering tourist village. It also becomes a priority for decision-makers in the development strategy of the Oro-Oro Ombo pioneering tourist village in Batu City, East Java. As a recommendation, implementing the Oro-oro Ombo pioneering tourist village development strategy must involve the active role of local government, the private sector, and the local community. Collaboration among stakeholders is expected to promote sustainable tourist village development, enhance community welfare, and strengthen local cultural identity.

Author Contributions

LN: Conceptualization, Methodology, Investigation, Formal Analysis, Writing - Original Draft; **MTNS**: Writing - Review & Editing; **F**: Writing - Review & Editing; **BC**: Methodology, Supervision, Data Curation, Writing - Review & Editing; **TS**: Conceptualization, Methodology, Software, Investigation, Formal Analysis, Writing - Review & Editing.

Conflicts of Interest

The authors declare that they have no conflict of interest.

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