



Analysis of Flying Fox Sports Tourism Development in Sangiang Bedil Sumedang Using the MSP DM Approach

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Abstract

This study aims to analyze the potential development of flying fox sport tourism in Sangiang Bedil, Darmaraja District, Sumedang Regency, using the Marketability, Sustainability, Participatory, and Disaster Mitigation (MSP+DM) approach. A descriptive qualitative method was employed through observation, interviews, and documentation involving tourism managers, flying fox operators, and visitors as research informants. Data were analyzed using thematic coding techniques supported by data triangulation to ensure validity and reliability. The findings indicate that the marketability aspect is strengthened by digital promotion through social media platforms such as TikTok, Instagram, and YouTube, supported by natural hill landscapes and adventure-based tourism experiences. In terms of sustainability, the attraction contributes positively to the local economy by creating employment opportunities and supporting small businesses, although environmental pressure and economic dependency on tourism remain challenges. Community participation is reflected in operational involvement, environmental maintenance, and tourism-supporting businesses; however, participation in strategic decision-making is still limited. Regarding disaster mitigation, safety measures such as routine equipment inspections, safety briefings, temporary operational closure during bad weather, and first-aid facilities have been implemented, although more structured standard operating procedures and emergency response training are still required. Overall, flying fox tourism in Sangiang Bedil has strong potential to become a competitive nature-based sport tourism destination through improved promotion, community involvement, environmental management, and risk mitigation systems.

Keywords: Sport Tourism, Flying Fox, MSP DM, Sustainable Tourism, Community Participation.

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A. Introduction

The development of modern tourism has shifted from conventional sightseeing toward experience-based tourism, where tourists seek interactive, emotional, and activity-oriented experiences. In this context, sport tourism has become one of the fastest-growing tourism sectors because it combines recreation, physical activity, adventure, and personal experience within a single destination experience. Sport tourism is defined as travel involving participation in or observation of sport-related activities that provide recreational and social value to tourists (Rizal, 2025). This trend is closely related to changes in modern lifestyles, particularly among younger generations who prefer active and challenging tourism activities over passive travel experiences (HALIM, 2025).

One form of active sport tourism that has developed rapidly in natural destinations is flying fox tourism. As part of adventure tourism, flying fox activities offer adrenaline-based experiences through aerial sliding systems supported by safety equipment and natural landscapes (Prasiasa, 2023). Previous studies indicate that the attractiveness of flying fox tourism is influenced by destination uniqueness, environmental scenery, facility quality, safety systems, and tourism management effectiveness (Syahadatina, 2023). Therefore, flying fox tourism is not merely a recreational facility but also a tourism product capable of creating memorable experiences for visitors.

Sangiang Bedil Durian Garden in Darmaraja District, Sumedang Regency, has considerable potential to be developed as a nature-based flying fox sport tourism destination. The area is supported by hilly topography, natural vegetation, and panoramic landscapes that are suitable for adventure tourism activities. In addition, the existence of flying fox attractions provides destination differentiation compared with surrounding tourism sites. These characteristics create opportunities

for the destination to become a competitive and sustainable sport tourism attraction.

However, tourism development should not focus solely on increasing visitor numbers. Sustainable destination development also requires environmental management, community participation, and tourist safety considerations. Several previous studies have mainly examined sport tourism from partial perspectives, such as marketing strategies, tourism attractiveness, or economic impact analysis (KURNIA, 2022). Other studies have focused primarily on quantitative approaches, limiting deeper exploration of community participation, visitor experiences, and risk mitigation systems in nature-based sport tourism destinations.

The research gap of this study lies in the limited application of the Marketability, Sustainability, Participatory, and Disaster Mitigation (MSP+DM) framework in analyzing flying fox sport tourism comprehensively, particularly in rural and nature-based tourism contexts. Previous studies rarely integrate marketing potential, sustainability, stakeholder participation, and disaster mitigation into a single analytical framework. Furthermore, empirical studies specifically examining flying fox tourism development in rural Indonesia remain limited.

Therefore, this study offers novelty by applying the MSP+DM framework through a qualitative approach to analyze the development potential of flying fox sport tourism at Sangiang Bedil Durian Garden, Sumedang Regency. This study not only examines destination attractiveness and tourism potential but also explores community involvement, environmental sustainability, and safety preparedness in an integrated manner.

This study aims to analyze:

1. The marketability of flying fox sport tourism at Sangiang Bedil;
2. The sustainability aspects of tourism development;

3. The level of community and stakeholder participation in tourism management; and
4. Disaster mitigation and safety preparedness within the tourism destination.

The findings are expected to contribute theoretically to the development of sport tourism studies, particularly regarding the implementation of the MSP+DM framework in nature-based tourism destinations. Practically, the results may provide recommendations for tourism managers, local governments, and communities in developing more competitive, sustainable, and safe sport tourism destinations.

B. Method

This study employed a qualitative descriptive approach to analyze the development potential of flying fox sport tourism at Sangiang Bedil Durian Garden, Damaraja District, Sumedang Regency, using the MSP+DM framework (Marketability, Sustainability, Participatory, and Disaster Mitigation). The study involved 12 informants selected through purposive sampling, consisting of tourism managers, flying fox operators, local community members, and tourists. Data were collected through observation, in-depth interviews, and documentation studies.

The research instruments were developed based on the MSP+DM dimensions, including:

1. Marketability: attraction uniqueness, promotion, and tourism information systems;
2. Sustainability: environmental conservation, community impact, and tourism management;
3. Participatory: community involvement and local economic benefits;
4. Disaster Mitigation: safety procedures, risk management, and emergency preparedness.

Data analysis used the interactive model of Miles and Huberman, including data reduction, data display, and conclusion drawing. The study also applied thematic analysis and coding techniques to identify patterns related to the MSP+DM dimensions. To ensure data validity, the study applied source triangulation, technique triangulation, member checking, peer debriefing, and audit trails to strengthen the credibility and trustworthiness of the findings.

C. Results and Discussion

1. Marketability

The findings show that the marketability of flying fox tourism at Sangiang Bedil is strongly supported by digital promotion through social media platforms such as TikTok, Instagram, and YouTube. Tourism managers actively upload visual content showing visitors' flying fox activities, natural scenery, and adventure experiences to attract potential tourists, particularly young travelers.

One tourism manager stated:

“Most visitors know this place from TikTok and Instagram. Videos showing the flying fox and hill scenery spread quickly and attract many young tourists.” (Manager 1)

This finding indicates that visual-based promotion plays a significant role in increasing destination visibility. Tourists are attracted not only by the activity itself but also by the emotional and adventure-based experiences displayed through social media content. Several visitors also mentioned that they visited the destination after seeing uploaded videos from other tourists. A tourist explained:

“I came here because I saw videos on social media. The view looked beautiful, and the flying fox seemed exciting and challenging.” (Tourist 2)

These findings support the concept of digital tourism marketing, where social media functions as a powerful promotional medium in shaping destination image and

influencing tourist decisions. However, the findings also reveal that the destination still relies heavily on viral social media exposure. The absence of integrated tourism information systems and limited collaboration with tourism communities indicate that the current marketing strategy remains relatively informal and dependent on user-generated content.

Another important finding is the role of the natural environment in strengthening destination attractiveness. Observations showed that the hilly landscape, cool air, and natural vegetation create a more immersive tourism experience. This combination between adventure activities and natural scenery differentiates Sangiang Bedil from artificial recreational destinations.

Nevertheless, the study found a contradiction between promotional success and destination preparedness. While digital promotion successfully increases tourist visits, infrastructure development and service quality improvements have not fully kept pace with visitor growth. This condition may reduce tourist satisfaction if not managed properly in the future.

Overall, the marketability aspect demonstrates strong potential through digital promotion, emotional tourism experiences, and natural landscape attractiveness. However, long-term competitiveness requires stronger branding strategies, service innovation, and more structured tourism marketing management.

2. Sustainability

The sustainability dimension shows that flying fox tourism at Sangiang Bedil contributes positively to the local economy. The tourism activity has created employment opportunities for local residents as operators, parking attendants, food sellers, and service providers.

One local resident stated:

“Since this tourism site became popular, more people have opened small businesses and earned additional

income from visitors.” (Community Member 1)

The findings indicate that tourism activities generate economic circulation within the local community. Increased tourist arrivals also encourage the growth of small-scale local businesses. This supports the sustainable tourism perspective, which emphasizes tourism’s role in creating economic multiplier effects for local communities.

However, the research also identified economic vulnerabilities. Many local residents have become increasingly dependent on tourism-related income. According to several informants, visitor numbers fluctuate depending on weather conditions, tourism trends, and holiday seasons.

A food vendor explained:

“If visitors decrease, our income also drops significantly because most customers come from tourists.” (Community Member 2)

This finding suggests that economic sustainability remains fragile because the local economy is still highly dependent on tourism activities. Diversification of local economic sectors has not yet been optimally developed.

From the environmental perspective, observations revealed that the natural condition of the area remains relatively well maintained. The management attempts to preserve vegetation and maintain cleanliness within the tourism area. Nevertheless, increasing tourist numbers have started to create environmental pressure, particularly related to waste management.

An operator stated:

“Some visitors still throw garbage carelessly, especially during crowded weekends.” (Operator 1)

This finding highlights a contradiction between tourism growth and environmental sustainability. Although the destination promotes nature-based tourism, environmental management systems are

still relatively basic. Carrying capacity monitoring, environmental education programs, and waste management systems have not yet been implemented comprehensively.

Therefore, sustainability at Sangiang Bedil shows positive economic and social impacts, but environmental management and long-term economic resilience still require significant improvement.

3. Participatory

The participatory aspect demonstrates that local communities are actively involved in tourism operations and supporting activities. Community participation includes maintaining cleanliness, managing parking areas, operating food stalls, and assisting tourism services.

One tourism manager explained:

“We involve local residents in many tourism activities because this destination should also benefit the surrounding community.” (Manager 2)

The findings indicate that tourism development has created collaborative relationships between managers and local residents. Community involvement also strengthens social cohesion and collective responsibility toward the destination.

A local resident stated:

“We help maintain security and cleanliness because this tourism site belongs to our community too.” (Community Member 3)

These findings are consistent with the concept of community-based tourism, where local participation is essential for sustainable tourism management. The community does not merely act as spectators but participates directly in operational activities and local economic development.

However, the study found that participation remains mostly operational rather than strategic. Local residents are involved in implementation activities but

rarely participate in planning, policy formulation, or strategic decision-making.

One resident mentioned:

“Usually, decisions about tourism development are made by the managers. We mostly help with operational activities.” (Community Member 2)

This finding reveals a limitation in participatory practices. Although community involvement exists, decision-making authority remains concentrated among tourism managers. This condition may weaken long-term community empowerment and reduce local ownership over tourism development processes.

Another challenge identified is limited human resource capacity, particularly in tourism management and digital promotion skills. Some residents still lack knowledge regarding visitor services and tourism marketing.

Therefore, strengthening participation should not only focus on involving local residents operationally but also increasing their capacity and participation in strategic tourism governance.

4. Disaster Mitigation

The findings show that safety and disaster mitigation have become important considerations in managing flying fox tourism activities at Sangiang Bedil. Managers conduct routine equipment inspections, provide safety briefings before activities, and stop operations during bad weather conditions.

An operator explained:

“Before visitors use the flying fox, we always check the equipment and explain safety procedures first.” (Operator 2)

Tourists generally perceived the safety system positively. One tourist stated:

“The operators explained the safety instructions clearly, so I felt quite safe during the activity.” (Tourist 1)

These findings indicate that preventive safety measures have already been implemented. Safety equipment such as helmets, harnesses, and first-aid facilities

are available, and operators have received basic operational training.

However, observations also revealed several weaknesses in the disaster mitigation system. The destination does not yet have comprehensive written Standard Operating Procedures (SOPs), structured evacuation routes, or regular emergency simulations. One operator admitted:

“We already know the basic procedures, but there has never been a formal emergency simulation or disaster training.” (Operator 3)

This finding shows a gap between practical safety awareness and formal disaster management preparedness. While operators understand basic safety procedures, mitigation systems remain informal and heavily dependent on individual experience rather than institutional standards.

Another important issue concerns weather-related risks. Since the destination is located in an open hilly area, strong winds and heavy rain can significantly increase operational risks. Although managers stop activities during bad weather, no integrated early warning or formal risk monitoring system has been implemented.

From a critical perspective, the destination demonstrates good initial awareness regarding visitor safety but still lacks professional disaster mitigation standards commonly found in established adventure tourism destinations. Stronger collaboration with disaster management agencies, medical services, and safety certification institutions is still needed.

Overall, the disaster mitigation aspect shows positive initial efforts through routine inspections, safety briefings, and operational restrictions during bad weather. However, more structured SOPs, emergency simulations, operator certification, and institutional collaboration are necessary to improve

destination safety and long-term tourism sustainability.

D. Conclusion

This study concludes that the flying fox sport tourism destination at Sangiang Bedil, Sumedang Regency, has strong potential to be developed as a sustainable nature-based sport tourism destination through the MSP+DM approach. The marketability aspect is supported by attractive natural scenery, adventure-based experiences, and effective digital promotion through social media platforms. From the sustainability perspective, the destination contributes positively to local economic and social development, although environmental management and economic diversification still require improvement. In the participatory dimension, local communities have been actively involved in operational and supporting tourism activities; however, their involvement in strategic decision-making remains limited. Meanwhile, the disaster mitigation aspect indicates that basic safety measures have been implemented, including equipment inspections, safety briefings, and operational restrictions during unfavorable weather conditions, but a more structured mitigation system and formal safety procedures are still needed. Overall, the development of flying fox sport tourism in Sangiang Bedil requires integrated strategies involving destination branding, environmental sustainability, community empowerment, and strengthened risk mitigation to ensure long-term competitiveness and sustainability.

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