

Determinants of tourist satisfactory and unsatisfactory experiences in nature-based tourism destinations: A thematic analysis

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Abstract: Tourists play a central role in the tourism industry, serving as the primary drivers of demand that generates economic activities and growth in this industry. This study focuses on understanding the key factors influencing tourist satisfaction and dissatisfaction in nature-based tourism destinations. Fatumnasi, a remote, emerging tourism destination in South-Central Timor, Indonesia, was chosen as the study site. A qualitative approach was utilized in this study. Data was collected through semi-structured interviews with 17 participants. A thematic analysis approach was employed to identify and interpret recurring themes within the data, systematically categorizing both positive and negative experiences shared by participants. This process captured specific factors that shaped tourist satisfaction and dissatisfaction, highlighting what aspects of the destination were most valued and where improvements are needed. The finding of this study reveals that tourist satisfaction toward the Fatumnasi tourism destination is primarily driven by the breathtaking natural scenery, biodiverse hotspots, and value for money. In contrast, unsatisfactory experiences were attributed to issues related to poor accessibility and infrastructure, insufficient pre-trip information, and environmental degradation, which indicates a need for improvements in these areas to better meet tourist satisfaction.

Keywords: Fatumnasi, Nature-based Tourism Destination, Thematic Analysis, Tourist Satisfactory Experiences, and, Tourist Unsatisfactory Experiences.

History Article: Submitted 11 June 2024 | Revised 28 Oktober 2024 | Accepted 10 November 2024

How to Cite: Taebenu, M. M., & Letor, Y. M. K. (2024). Determinants of tourists satisfactory and unsatisfactory experiences in nature-based tourism destinations: A thematic analysis. *International Journal of Applied Science in Tourism and Events*, 8(2), 64-75.

Introduction

Tourist satisfaction plays a pivotal role in the tourism industry, with no exception for the nature-based tourism industry (Naidoo et al., 2024). High levels of tourist satisfaction can improve the reputation of a destination, attract new visitors, and generate loyalty among the existing ones (Hui et al., 2007; Su & Fan, 2011). This also means that satisfied tourists are more likely to return to a destination and recommend it to others, thereby increasing its popularity and generating more job opportunities, which can be especially vital in remote or underdeveloped areas where alternative job prospects may be scarce. Conversely, unsatisfactory experiences can lead to negative reviews and hinder potential tourists, thereby hindering the destination's economic prospects.

Given its importance, it has been argued that understanding the determinants of nature-based tourist satisfaction is crucial (Kurniasari, 2019). Such understanding can help the destination managers and related policymakers design and implement strategies that meet or exceed visitor expectations, which in turn enhances the overall tourism experience. This ensures that tourism remains a robust driver of development, benefiting both tourists and local communities in the long run.

Within the research community, tourist satisfaction has extensively been a topic of interest. Scholars utilize various theoretical frameworks to explore this concept. According to the Expectancy-Disconfirmation Theory, one such framework, satisfaction is determined by the extent to which a tourist's expectations are met or exceeded by their actual experiences (Ahmad et al., 2021). If the experiences align with or surpass expectations, satisfaction is achieved; if not, dissatisfaction arises.

A number of research have been conducted to identify factors that influence nature-based tourist satisfactory and unsatisfactory experiences (Biney et al., 2023; Cheng et al., 2022; Fatmawati & Olga, 2023; Kurniasari, 2019; Kusumawardhani, 2022; Naidoo et al., 2024; Suanmali, 2014; Talib, 2020). In a study conducted in Zhangjiajie National Forest Park, a well-established nature-based tourism destination in China, for example, it was discovered that the visitors were highly satisfied with its wonderful natural scenery, but relatively dissatisfied with the prices, services, activities and events, and artificial attractions (Cheng et al., 2022). Meanwhile, a study conducted in Rattray Park, Ghana, found that accessibility was the determining factor for tourist satisfaction. Visitors did not encounter difficulty in reaching the park due to the good condition of the roads and affordable transportation. Conversely, inadequate availability of amenities, such as Wi-Fi and restaurants, as well as tourism information, were the determining factors that diminish the quality of tourist experiences (Biney et al., 2023).

Furthermore, high environmental quality, attractiveness, high accessibility, and well-developed facilities, were found to play a critical role in shaping tourist satisfaction in Sarangan Lake, a nature-based tourism destination in East Java, Indonesia (Fatmawati & Olga, 2023). Meanwhile, a study in the Gunung Pancar Natural Tourism Park found that accessibility issues, including inadequate road access and signage, were identified as the main factors contributing to tourist dissatisfaction (Kusumawardhani, 2022). These findings reveal that there is a complex interaction between various determinants in shaping the experience of visitors to nature-based tourist attractions.

While numerous studies have recognized the importance of understanding tourist satisfaction in sustainable tourism development, there is a notable gap in studies focusing on small-scale, underdeveloped nature-based tourism destinations. This lack of in-depth studies addressing tourist preferences and experiences may result in missed opportunities for optimizing resources and enhancing tourism potential in such settings.

This study seeks to address this gap by exploring the key factors influencing tourist satisfaction and dissatisfaction in Fatumnasi, a nature-based tourism destination in Indonesia. It is interesting to note here that the Government of Indonesia has recently focused on Fatumnasi for its potential to be developed into a sustainable, nature-based tourism area. In 2021, Fatumnasi was nominated as a Hidden Paradise in the Anugerah Pesona Indonesia (API) awards. Meanwhile, in 2024, Fatumnasi also received the Indonesian Tourism Village Award.

Despite the recognition, Fatumnasi is struggling to reach its full tourism potential. In 2020, the Government of South-Central Timor Regency (Govt. of TTS Regency, 2021) reported that the number of domestic tourists visiting Fatumnasi was only 1,972, with an average stay of one day. Meanwhile, only seven international tourists visited, with an average stay of two days. These figures were significantly lower compared to other nature-based tourism destinations in the regency, such as Bu'at Park (7,200 visitors) and Oetune Beach (4,234 visitors). Another source reported similar trends, indicating that the average number of visitors to Fatumnasi in recent years is only around 1,500 (Latuan, 2023).

The fact that both the number of visits and the length of stay are not yet proportional to the rich and abundant tourism resources of Fatumnasi also underscores the need for an in-depth study to capture its visitor experiences. This study employs thematic analysis, a powerful qualitative approach that captures the subjective nuances of tourist experiences and identifies actionable themes often overlooked by quantitative methods. It is expected that this study will provide valuable insights for tourism stakeholders, policymakers, and local communities in the area. This enables them to develop targeted strategies for enhancing tourist satisfaction and improving the overall quality of tourism services in Fatumnasi.

Methodology

Study Design

This study employed a qualitative research design to explore the determinants of tourist satisfactory and unsatisfactory experiences in Fatumnasi, one of the nature-based tourism destinations in Indonesia. The choice of a qualitative approach was driven by two main reasons. First, qualitative research is dynamic at uncovering the meanings and perspectives that people assign to phenomena in complex social settings, rather than just measuring their frequency (Bryman, 2012). This method allows for a detailed exploration of phenomena since the setting is relatively free from 'prior contamination.' Second, a qualitative approach offers greater flexibility in its conduct (Bryman, 2012). Due to its unstructured nature, the focus of qualitative research can be easily adjusted, enabling the researcher to adjust the direction of the study to gain more meaningful insights into the phenomenon studied.

Fatumnasi was selected as the study site due to its unique characteristics and emerging status as a nature-based tourism destination. Fatumnasi offers a valuable opportunity to study tourist experiences in a location that offers rich natural landscapes but may lack the well-developed infrastructure found in more established nature-based tourism areas. Meanwhile, thematic analysis was employed as the primary method for analyzing qualitative data collected from interviews with participants. This approach allows for a structured examination of recurring patterns and themes in tourists' feedback, capturing both positive and negative aspects of their experiences. Through such analysis, the study aims to provide insights into the specific experiences and expectations of visitors to Fatumnasi, offering evidence-based guidance for stakeholders to enhance the appeal and sustainability of tourism in this and other nature-based destinations across Indonesia.

Research Setting

Fatumnasi is an emerging nature-based tourism destination located in a remote area of Indonesia. Administratively, Fatumnasi is a district in South Central Timor Regency, East Nusa Tenggara Province, Indonesia. Fatumnasi has an area of 198.65 km², with an average altitude of 1,480 meters above sea level, with the highest point being the peak of Mount Mutis (2,427 meters above sea level). Fatumnasi is 37 km from Soe, the capital of South-Central Timor Regency or approximately 138 km from Kupang City, the capital of East Nusa Tenggara province (Figure 1). Traveling from Kupang City to Fatumnasi typically requires a motor vehicle journey lasting 3 to 4 hours.



(Source: Elaborated from Google Maps, 2024)

Figure 1. The location of Fatumnasi

The Fatumnasi tourist destination offers tourists a variety of mountainous attractions (Fuah, 2013; Maak et al., 2022). The main attractions include distinctive rock formations, such as Fatu Kolen, Fatu Nausus, and Fatu Taapan, as well as hills like Nubui Hill. Additionally, visitors can explore a bonsai forest, home to ancient 'Ampupu' trees adorned with hanging moss, Lake Nefo Kaenka, and Mount Mutis with its nature reserve, which is dense with endemic Timorese wildlife. These attractions promise interesting experiences for visitors, as explored in the following section.

Participants

The study targeted tourists who have visited Fatumnasi. Snowball sampling was used to select the participants. Inclusion criteria were adults (18 years and older) and were willing to share their experiences when visiting Fatumnasi. The participants were recruited through social media platforms, including Instagram and Facebook. The hashtag #Fatumnasi was used to identify potential participants. The first wave of recruitment took place in November 2021, and the second wave occurred in May 2024. In total, 17 participants were recruited for this study.

Data Collection

Data was collected through semi-structured interviews. The selected participants were interviewed either in person or via telephone. An interview guide, with open-ended questions, was designed to extract detailed narratives about both satisfactory and unsatisfactory aspects of their experiences. Sample questions included: *"Before your visit, what impression did you have of the Fatumnasi tourism destination? Which spots did you visit during your trip to Fatumnasi?; What aspects do you feel are lacking in the Fatumnasi tourism destination, why, and what are your future expectations?"* At the end of the interview, each participant was asked to rank the overall satisfaction level, on the scale of 1 – 10. The duration of the interviews ranged from 15-30 minutes. The interviews were audio-recorded and transcribed verbatim into interview transcripts.

Data Analysis

The data collected was analyzed through a thematic analysis approach. It is important to note here that thematic analysis is a powerful method for qualitative research. It offers a systematic, flexible, and detailed approach to understanding complex data, ensuring that findings are both grounded in participant experiences and capable of informing practical and theoretical advancements (Braun & Clarke, 2006). This approach is also useful in tourism research, where data can come from several sources, such as interviews, focus groups, and written texts (Walters, 2016).

Thematic analysis also provides a structured method for identifying, analyzing, and reporting patterns within data, which in this study, as referred to Braun and Clarke (2006), involved six phases. The first phase was *"Familiarizing Yourself with the Data."* This was done by engaging in the data through repeated reading of the interview transcripts. The second phase, *"Generating Initial Codes"* was done by systematically coding interesting features of the data in a meaningful way, using a software program; ATLAS.ti. In the third phase, after all data had been initially coded and collated, the *"Searching for Themes,"* was done. Here, data were sorted into potential themes. In the fourth phase, *"Reviewing Themes,"* the candidate themes were checked to ensure that the themes relate to the coded extracts and the entire data set. Fifth, *"Defining and Naming Themes,"* was done through generating clear definitions and specific names for each theme. A thematic network was generated here. In the sixth phase, the final analysis was done to *"Producing the Report."*

Ethical Considerations

Three ethical concerns were carefully considered throughout all stages of this research: 1) Informed Consent: participants were fully informed about the nature of the research and the potential consequences of their involvement. This ensured that their participation was voluntary

and based on a clear understanding of the study, 2) Confidentiality: To protect the confidentiality of the information provided by participants, their identities were anonymized using codes. This measure was implemented to safeguard their privacy and ensure that their personal information remained confidential, and 3) Integrity: This was upheld by adhering strictly to basic research protocols. This research was prepared to be stopped, suspended, or subjected to other sanctions if it failed to comply with the fundamental ethical standards.

Results and Discussions

Participant Characteristics

Table 1 illustrates the characteristics of the 17 participants in this study. The majority of participants were female, comprising 52.94 percent, while male accounted for 47.06 percent. The largest age group among the participants was 21-30 years old, constituting 41.18 percent, followed by the 31-40 years old group at 16.67 percent. Both the 41-50 years old group and those aged 51 and older each accounted for 11.76 percent. Meanwhile, participants aged 20 years or younger comprised only 5.88 percent. In terms of education, 52.94 percent of the participants reported having obtained bachelor's degrees. Secondary school education accounted for 35.29 percent, while 11.76 percent had master's or PhD levels. No participant held a primary school education.

Table 1. Participant characteristics

Variables	Category	Percentage
Gender	Male	47.06
	Female	52.94
Age	≤ 20 y.o.	5.88
	21 – 30 y.o.	41.18
	31 – 40 y.o.	29.41
	41 – 50 y.o.	11.76
	≥ 51 y.o.	11.76
Education Level	Primary School	0.00
	Secondary School	35.29
	Bachelor	52.94
	Master / PhD	11.76

Characteristics of Visits

Table 2 depicts the responses of the participants regarding their visitation experiences in Fatumnasi. The majority of respondents (76.47 percent) were from within East Nusa Tenggara, while around one-fourth (23.53 percent) were from other provinces in Indonesia. No participants were from different countries. Regarding the frequency of visits, 64.71 percent of the participants visited Fatumnasi once, 23.53 percent visited twice, and 11.76 percent visited three times. The results also show that the majority of participants stayed in the area for one day, constituting 88.24 percent. Those who spent two and three or more days each accounted for only 5.88 percent. Regarding total spending, most visitors spent below 100,000 IDR, accounting for 82.35 percent. This was followed by spending between 101,000 – 200,000 IDR (11.76 percent). Visitors who spent 201,000 – 300,000 IDR and 301,000 IDR or above each accounted for only 5.88 percent. This study also found that the majority of the participants rated their overall satisfaction levels between 9.1 and 10.0, accounting for 52.94 percent. This was followed by satisfaction levels between 8.1 and 9.0, constituting 35.29 percent. Meanwhile, participants reported satisfaction levels between 7.1 and 8.0, and below 7.0, each constituted 5.88 percent.

Table 2. Characteristics of visits

Variables	Category	Percentage
Place of origin	Inside East Nusa Tenggara	76.47
	Outside East Nusa Tenggara	23.53
	Abroad	0.00
Number of visits	Once	64.71
	Twice	23.53
	≥ Three times	11.76
Duration of stay	One day	88.24
	Two Days	5.88
	Three or more days	5.88
Total Spending per person	≤ 100,000 IDR	82.35
	101,000 – 200,000 IDR	11.76
	201,000 – 300,000 IDR	5.88
	≥ 301,000 IDR	5.88
Overall satisfaction level	< 7.0	5.88
	7.1 – 8.0	5.88
	8.1 – 9.0	35.29
	9.1 – 10.0	52.94

Qualitative Findings

The process of thematic analysis on determinants of tourist experiences towards the Fatumnasi tourism destination revealed six different themes that fall into two main categories, including satisfaction and dissatisfaction (Figure 2). The themes on the determinants of tourists' satisfactory experiences are discussed below.

Breathtaking Natural Scenery

Participants highlighted Fatumnasi as a pristine landscape. Visitors frequently mentioned the stunning natural beauty, including the lush forests, mountainous terrain, and unique rock formations. The impressive natural scenery was highlighted as the major attraction that draws tourists seeking calm environments. Participant 4, a resident of Kupang City, stated: *"I am satisfied because after a long journey and navigating quite challenging terrain, I witnessed the natural scenery. It is very beautiful."* This highlights that despite the tough journey and challenging terrain, the natural beauty of Fatumnasi compensates for the difficulties faced during travel. Similarly, Participant 5 remarked that: *"The atmosphere's attractiveness of Fatumnasi exceeded my expectations..."*. This suggests that the actual experience of Fatumnasi's atmosphere was more impressive than anticipated.

Whereas, when asked to compare Fatumnasi with similar tourist destinations in other remote areas of Indonesia, the informants expressed that Fatumnasi is to some extent more attractive. Participant 1 even rated Fatumnasi higher, saying: *"The sky is so clear that you can photograph the Milky Way with a cellphone... no other place (referring to several mountains in Indonesia he has climbed) can match it."* This comparison shows that Fatumnasi holds its own against other remote nature-based tourist destinations in Indonesia.



Figure 2. The thematic network

Biodiverse Hotspot

The presence of unique and diverse flora and fauna in Fatumnasi is another notable theme. Visitors interested in biodiversity might highlight their experiences with the local wildlife. Participant 11 stated: *"The Bonsai Forest offers a unique scene. We can experience a natural setting with hundred-year-old Ampupu trees."* This statement indicates the presence of ancient and possibly rare plant species, adding to the forest's allure. That is, this unique scenery not only provides a visual scene but also offers a sense of continuity, which can be overwhelmingly moving for visitors. Meanwhile, Participant 1 added: *"When I climbed Mount Mutis, I encountered various endemic Timorese plants. I enjoyed the experience. There is a savanna, and I can meet horses that have been released."*

The findings indicate that Fatumnasi's ecological significance is a notable draw for visitors. Endemic species, being unique to a specific location, enhance the value of Fatumnasi as a biodiverse hotspot. This can also explain why Participant 15 spent three days in Fatumnasi to enjoy its wildlife. The participant's enjoyment of this experience highlights the satisfaction derived from direct interaction with the natural environment, reinforcing the importance of preserving these habitats.

Value for Money

Tourists also viewed the affordable cost of visiting the heritage site positively in relation to the experience provided. This includes entrance fees, tour costs, and overall affordability. For instance, Participant 14 mentioned spending less than 100,000 IDR during her visit to Fatumnasi, emphasizing the destination's affordability. Meanwhile, Participant 9 said that he visited Fatumnasi more than three times due to its value for money. He also stated: *"Fatumnasi is like 'Bogor' (for Jakarta residences) in my hometown (Kupang). I spent my weekend there several times because it is cheap."*

The fact that visitors appreciated the affordability of Fatumnasi suggests that the pricing structure aligns well with market expectations and the economic conditions of the target audience. Reasonable entrance fees and tour costs make the destination accessible to a wider range of tourists, including budget travellers, families, and individuals seeking cost-effective travel options. This is reflected in the total number of participants who stayed in the area for one day spent money less than 100,000 IDR. Only one of them spent between 101,000 and 200,000 IDR,

but he also noted that it was far cheaper than his expenses in similar nature-based tourism destinations on Java Island.

Despite this, many visitors also testified to various poor experiences when visiting the Fatumnasi tourism destination. Across the range of responses from participants, this study revealed three different categories of themes on the determinants of tourists unsatisfactory experiences towards Fatumnasi, as discussed below.

Poor Accessibility and Infrastructure

Visitors consistently reported difficulties in accessing Fatumnasi, citing poor road conditions as a major challenge. The roads were frequently described as unpaved, narrow, and winding, making them challenging to navigate, especially during the rainy season. These accessibility issues not only caused discomfort and stress but also significantly increased travel time, detracting from the overall enjoyment of the trip. For instance, Participant 3 noted: *"Access is still not good, where stone roads are still found."* In a similar vein, Respondent 14 stated that *"Fatumnasi is an excellent tourist destination with significant potential for further development. However, attention must be paid to aspects of accessibility."* These sentiments underscore how poor road conditions can overshadow the positive aspects of the destination, leading to a predominantly negative experience.

In addition to accessibility issues, infrastructure deficiencies within Fatumnasi were a major source of dissatisfaction. Participant 11, for example, reported a lack of basic amenities, such as bins, clean restrooms, and reliable accommodation options. Participant 5 also gave a higher rating to another destination that was well-developed, stating, *"Labuan Bajo is still better. In my opinion, Labuan Bajo received an overall score of 9, while Fatumnasi only scored 8.5."* The absence of these basic facilities often left visitors feeling unprepared and uncomfortable, impacting their overall perception of the destination.

Insufficient Pre-Trip Information

Many tourists reported difficulties in finding reliable information about Fatumnasi before their visit. Essential details, such as how to get there, available accommodations, and detailed attractions, were incomplete on commonly used platforms. For instance, Participant 3, who works at a private company, with branches in several cities in Indonesia, mentioned, *"... I found out the information about Fatumnasi after I was assigned to Kupang, from Surabaya (East Java)."* The insufficient pre-trip information has broader implications for tourist satisfaction and the perception of Fatumnasi as a tourism destination. Participant 9 also highlighted that: *"We were a little disappointed that we couldn't visit the bonsai forest. Access to this spot is bad and quite difficult for vehicles that have a low ground clearance, like my car, Honda Brio. We did not know this information before."* When tourists feel unprepared and encounter unexpected challenges, it can lead to a negative overall impression of the destination.

Environmental Degradation

This theme emerged consistently across interviews, underscoring its critical impact on tourist satisfaction. Many tourists reported observing signs of environmental degradation during their visits to Fatumnasi, including litter and visible damage to natural habitats caused by increasing tourist traffic. For example, Participant 17 noted, *"Visitors taking photos indiscriminately in the Bonsai Forest leave traces and damage the area's authenticity."* Such environmental issues were frequently mentioned as detracting from the natural beauty that tourists expected to find in a nature-based destination.

Before visiting Fatumnasi, tourists expected sustainability practices to be a priority, with minimal human impact and high levels of environmental conservation. However, many visitors encountered issues of environmental degradation. Participant 4 commented: *"Cleanliness is important. In this regard, trash bins should be provided adequately so visitors do not litter ran-*

domly." This sentiment reflects a common concern that environmental degradation not only diminishes the aesthetic appeal but also affects the overall enjoyment and perceived value of the destination.

Discussions

The primary findings from the thematic analysis indicate various elements that contribute to nature-based tourist experiences in Fatumnasi. In this respect, the determinants of tourist satisfaction in Fatumnasi can be broadly categorized into three key themes: breathtaking natural scenery, biodiverse hotspots, and value for money. The first theme was drawn from the responses of the participants who appreciated Fatumnasi for its natural beauty, ability to exceed expectations, and unique atmospheric conditions. The clarity of the sky, for instance, enables the photography of the Milky Way with a cell phone, which highlights a unique feature of Fatumnasi. This highlights that Fatumnasi offers exceptional stargazing opportunities, which can be a significant draw for tourists interested in astronomy and natural beauty. The satisfaction derived from these aspects suggests that Fatumnasi can compete with other remote destinations in Indonesia and offers unique experiences that are highly valued by visitors.

The interview findings also suggest that the unique and diverse flora and fauna in Fatumnasi are significant attractions for visitors, particularly those with an interest in biodiversity. This theme enhances the region's appeal to eco-tourists and nature enthusiasts who seek out destinations with rich ecological significance. Furthermore, this study found a positive perception of value for money among tourists visiting Fatumnasi that underscores the destination's attraction through its affordability and the quality of experiences it offers. This perception regarding its value for money not only enhances visitor satisfaction but also encourages longer stays and repeat visits.

Conversely, poor accessibility and infrastructure, insufficient pre-trip information, and environmental degradation are the themes that underline the major sources of dissatisfaction. The combination of poor accessibility and inadequate infrastructure found in this study has broader implications for tourist behaviour and the image of Fatumnasi as a tourism destination. These negative experiences can deter repeat visits and reduce word-of-mouth recommendations, which are crucial for the growth and sustainability of tourism in such areas.

This study also revealed that providing detailed, accurate, and easily accessible pre-trip information is crucial. It can help potential visitors to set realistic expectations and enhance the overall travel experience. Other than that, tourists expressed concern about the negative impact of tourism on local wildlife and natural features. Reports of disturbed wildlife and damaged vegetation were common, indicating that current tourism practices might be unsustainable and harmful to the environment. Such experiences highlight the conflict between tourism development and environmental preservation, which is particularly pronounced in emerging destinations like Fatumnasi.

The themes generated in this study offer significant contributions to the field of tourism research, particularly in the context of remote and emerging nature-based destinations, in three ways. First, this study exemplifies the effectiveness of thematic analysis in uncovering deep insights into tourist experiences (Walters, 2016). This methodological contribution supports the use of qualitative approaches in tourism research, particularly for exploring complex and nuanced aspects of tourist behaviour and satisfaction, as conducted by Kurniasari (2019). It also means that this study not only demonstrates the value of thematic analysis in tourism research but also emphasizes the broader significance of incorporating qualitative methods to capture the depth and complexity of tourist experiences. The insights gained from such approaches can inform more nuanced and effective tourism management practices, ultimately enhancing the quality and sustainability of tourist destinations.

Second, it supports previous studies highlighting complex interplay between various elements that contribute to nature-based tourist experiences (Biney et al., 2023; Cheng et al., 2022; Fatmawati & Olga, 2023; Kurniasari, 2019; Kusumawardhani, 2022; Naidoo et al., 2024; Suanmali, 2014; Talib, 2020). In other words, this study deepens our understanding of what drives tourist satisfaction and dissatisfaction, by focusing on emerging, remote nature-based destinations. By identifying key factors, such as incredible natural scenery, biodiverse hotspots, and

the challenge of accessing the destination, this study highlights the complex interplay between various elements that contribute to tourist experiences.

Third, this study extends the results of previous research by adding another element of attraction in nature-based tourism destinations. For example, although Suanmali (2014) found evidence of the nature-based tourism attraction of Chiang Mai, Thailand, in creating distinct and unique scenery for tourists, the findings in this study emphasize the importance of unique natural features, such as clear skies that allow for Milky Way photography, in enhancing tourist satisfaction. This underscores the potential for remote destinations to leverage their unique attributes to attract more visitors and differentiate themselves from more accessible locations.

In summary, this study has reinforced and extended previous research by providing a deeper understanding of the determinants of tourist satisfaction and dissatisfaction in nature-based tourism. These insights not only confirm established theories but also offer new perspectives on evolving tourist expectations, underscoring the need for continuous adaptation and innovation in the tourism industry.

Conclusions

It has been argued that understanding tourist satisfaction and dissatisfaction is becoming increasingly important for destination management, development, and sustainability amid the growing trend of global tourism. In emerging, remote nature-based tourism areas like Fatumnasi, this understanding is more crucial. Through a thematic analysis, this study reveals a complex factor that influence nature-based tourist experiences in Fatumnasi. Positive experiences are largely driven by breathtaking natural scenery, biodiverse hotspots, and value for money. However, infrastructural deficiencies, a lack of adequate tourist information, and environmental concerns have been identified as the contributing factors that significantly diminish the quality of the tourist experience.

The findings imply that investments in basic infrastructure, such as roads, sanitation, and accommodations, driven by tourism demand are crucial. Basic infrastructure is also a key factor in encouraging the involvement of other actors, especially private entities, in the development of this area. Moreover, in developing comprehensive pre-trip information resources, it is essential for stakeholders to provide an up to date, dedicated official website with detailed information about the Fatumnasi tourism destination, including travel logistics, accommodation options, dining, and local attractions. Additionally, the government should provide incentives to encourage social media users and travel bloggers to disseminate information about the Fatumnasi tourism destination more broadly and engage potential visitors. Regarding the issue of environmental degradation, it is essential for stakeholders to promote sustainable tourism practices in Fatumnasi. These can include establishing strict waste management protocols to reduce litter, creating designated pathways and viewing areas to minimize habitat disturbance, and collaborating with local environmental organizations to monitor and mitigate the impact of tourism on local ecosystems. By implementing these strategies, the Fatumnasi tourism destination can become more attractive, enhancing the overall tourism experience. This, in turn, ensures that tourism continues to be a robust driver of sustainable development in this area, benefiting both tourists and locals in the long run.

For a broader context in Indonesia, these findings highlight the growing appeal of nature-based tourism in attracting tourists interested in sustainable experiences. This study suggests that improving basic infrastructure, providing comprehensive pre-trip information resources, and promoting sustainable tourism practices in nature-based destinations can enhance visitor satisfaction and encourage repeat visits. In turn, these improvements could help Indonesia position itself as a leader in nature-based tourism, benefiting both the local economy and environmental conservation efforts.

While this study offers rich contextual insights into participants' experiences, it has certain limitations. It is based on small samples and heavily relies on the subjectivity of researchers, limiting its generalizability and objectivity. Future studies, therefore, should incorporate qualitative designs with quantitative designs, such as longitudinal and experimental approaches, within a mixed-methods design. This might capture changes in perceptions over time or explore the

correlations and causations of variables observed, providing a broader understanding of tourist experiences in nature-based destinations. Moreover, expanding the participant groups to include the locals could further enrich the findings by providing diverse perspectives on the benefits, challenges, and impacts of tourism activities in the studied area. Additionally, to better reflect the complexity of real-world situations, future research could examine indirect relationships through mediating variables, such as visitors' socio-demographic factors. For instance, by incorporating generational differences as mediators, researchers can identify why certain variables, like the lack of adequate tourist information, matter more to the Generation Z than the Baby Boomers. These ways, future studies could develop a more comprehensive framework for understanding participants' experiences in nature-based tourism destinations.

Authors' Contributions

MT conceived the idea, wrote the proposal, and conducted the study. MT and YL analyzed the results and generated the themes, and wrote, proofread, and approved the final manuscript.

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