

# The Influence of Tourist Safety and Tourist Environmental Awareness on Tourist Visiting Decision through Sustainable Tourism

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## ABSTRACT

This study aims to determine how much influence Tourist safety, tourist environmental awareness, Tourist financial behavior, and tourist characteristics have on tourist visiting decisions with sustainable tourism as a mediating variable at Matantimali Paragliding Destination. This research is quantitative, with data collection methods such as distributing questionnaires via Google Forms and observation. The sampling technique uses probability sampling. The population in this study is unknown, so using accidental techniques, the number of samples used is 51 respondents. The data analysis method used is path analysis using Smart PLS. Tourist Safety directly affects visitor decisions, and Tourist Environmental Awareness has no direct effect on visitor decisions. Tourist Safety variables indirectly have no significant effect on visiting decisions through sustainable tourism, and Environmental Awareness indirectly through sustainable tourism has a significant effect on visitor decisions.

**Keywords:** *tourism, tourist safety, environmental awareness, visiting decision, sustainable tourism, paralyang matantimali.*

## 1. INTRODUCTION

Tourism, one of the crucial aspects for humans to seek happiness, has penetrated more individuals' lives and become part of their lifestyle (Ma et al., 2020; Quintela et al., 2023; Sari & Bachri, 2022). Tourism destinations must guarantee various factors for visitors so that visitors can decide to visit the destination (Mim et al., 2022; Ünal, 2020). One factor that is of concern to tourists and tourism processors is the development of sustainable tourism (Nguyen, 2021). Sustainable tourism is a new approach to developing intelligent destinations and a fundamental cornerstone of tourism in the 21st century (Stajčić & Živković, 2020; Trišić et al., 2021). The emergence of sustainable tourism is due to the rapid growth of tourism without balancing environmental aspects. The environmental attractiveness of a tourist destination can increase tourist visits, which in turn will increase local people's awareness of their environment (Thahir et al., 2021). The rapid growth of tourism has also brought safety in the tourism sector into the spotlight (Ding & Wu, 2022; Tokodi, 2020). Disasters and accidents are severe threats to tourism safety that can affect tourists and the tourism industry (Samundeswari et al., 2023; Zeng et al., 2023). On the other hand, environmental awareness also plays a vital role in this context (Mandić et al., 2020). Travelers with high environmental awareness tend to pay more attention to the safety aspects of their surrounding environment (Pirghie & Matei, 2020). Environmental awareness is about keeping nature clean and sustainable and reducing the risk of accidents or disasters that could affect their quality of life and their overall travel experience (Pramita et al., 2023). Eco-friendly visitor characteristics are an essential aspect of environmental protection (Han, 2021).

Natural attractions such as paragliding sports in Matantimali have great potential and are owned by Palu City (Suriady et al., 2021). This hill is a favorite for paragliding sports enthusiasts, making this Sigi paragliding destination famous in the world of adrenaline sports (Santoso, 2022). The proof is that this paragliding destination in Matantimali hosted the 2022 Pre Paragliding World Championship, attended by 12 countries and 100 athletes. Unfortunately, as a national and even international tourist destination, Matantimali Paragliding Destination still has several problems that should be of more concern to local managers and governments. From the observations made, visitors feel several problems. First, many visitor public facilities need to be addressed, such as toilets that are not clean and limited internet

networks. Second, there needs to be more clean water points because clean water points are only available in the same place. Third, road access is difficult because the road access to Matantimali Paragliding Destination has yet to be paved, and the road terrain is a little steep, which can threaten the safety of tourists. The last problem is the amount of garbage scattered on the ground and visitors who litter. Therefore, this research aims to understand how these independent variables contribute to tourists' decision to visit the destination with a focus on the sustainability aspect of tourism.

## 2. RESEARCH METHOD

This research used quantitative methodology. This research was conducted at Matantimali Paragliding Tourism Destination, which is located in Matantimali Village, West Marawola District, Sigi Regency, Central Sulawesi. The sampling technique uses probability sampling. The sample in this population was 140 visitors, and the total sample was unknown, so accidental sampling was used, with the number of samples used being as many as 51 respondents. The respondents sampled in this study were tourists who had visited the Paragliding Destination. This study uses primary sources in the form of field observations. It uses a questionnaire that is structured using structured statements, which include five closed statements. These are distributed online via Google Forms and directly at Matantimali Paragliding Destination. The analysis method used in this research is path analysis with using Smart-PLS 3.0.

### 2.1. Hypothesis

*H1a*: Tourist Safety directly has a significant effect on Tourist Visiting Decision.

*H1b*: Tourist Safety directly has a significant effect on Sustainable Tourism.

*H2a*: Tourist Environmental Awareness directly has a significant effect on Tourist Visiting Decisions.

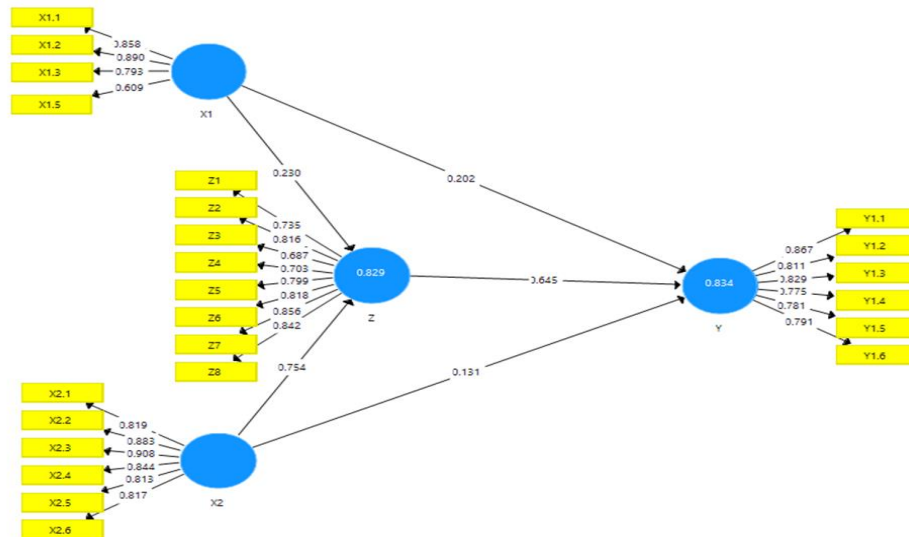
*H2b*: Tourist Environmental Awareness directly has a significant effect on Sustainable Tourism.

*H3*: Sustainable Tourism directly has a significant effect on Tourist Visiting Decisions.

*H4a*: Tourist Safety indirectly significant affects Tourist Visiting Decisions through Sustainable Tourism.

*H4b*: Tourist Environmental Awareness significant indirectly affects Tourist Visiting Decisions through Sustainable Tourism.

## 3. RESULT AND DISCUSSION



**Figure 1** Diagram for the measurement model of the study.

Figure 1 shows the diagram for the measurement model of the study. The PLS measurement results show that one indicator (X1.4) is unreliable with a Cronbach's Alpha value below 0.60, so the data cannot be used in this study. Other variables have strong internal consistency with Cronbach's Alpha above 0.70 (Biswas et al., 2021). Environmental awareness through sustainable tourism strongly correlates to visit decisions with an R Square of 0.834. In contrast, the variable of tourist safety through sustainable tourism has a slightly lower correlation with an R Square of 0.829.

**Table 1.** Result of a measurement model for the study

	Cronbach's alpha	Rho_A	Composite reliability	Average variance extracted (AVE)
X1	0.871	0.881	0.906	0.660
X2	0.932	0.935	0.947	0.748
Y	0.931	0.931	0.946	0.743
Z	0.890	0.896	0.917	0.649

Cronbach's alpha measures the internal consistency of an instrument or questionnaire, with values above 0.7 considered acceptable (Cordeiro et al., 2023; Mokshein et al., 2019). The data shows that the four variables have strong internal consistency and can be used in research. Average Variance Extracted (AVE) assesses construct validity and discriminant validity in structural equation modeling (SEM), with values above 0.5 considered high (Kock, 2019). All four variables have AVE values above 0.5, indicating valid data.

**Table 2.** Result of the structural model of the study

Hypothesis	Direct/Indirect Effect	T statistics	P Value	Conclusion
H1a	X1 → Y	2.20	0.03	Supported
H1b	X1 → Z	2.09	0.04	Supported
H2a	X2 → Y	0.56	0.58	Unsupported
H2b	X2 → Z	8.00	0.00	Supported
H3	Z → Y	3.04	0.00	Supported
H4a	X1 → Z → Y	1.54	0.12	Unsupported
H4b	X2 → Z → Y	3.10	0.00	Supported

The table above shows If the P value is less than 0.05, the relationship between variables is significant (S. W. Lee, 2022). Tourist Safety (X1) directly has a significant effect on Tourist visiting decisions characterized by a P value of 0.03 < 0.05. These results are supported by previous research (Georgieva & Bankova, 2021), which states that visitors' perceptions of the safety of a tourist spot significantly affect their decisions to choose the tourist destination they will visit. Based on the responses from visitors to the Matantimali Paragliding Destination, in this case, it must further increase the sense of security of visitors, especially security in terms of facilities that still need more attention. Including repairing and paving the entire road to the top, adding signs or road signs that are still lacking, a decent internet network, with fast internet, of course, it will increase visits from tourists (Lopez-Cordova, 2020), and public facilities such as toilets that are still neglected. Tourist management needs to pay attention to the cleanliness of toilets and other public facilities because it can impact visitors' health (Gill et al., 2020). Tourist Safety (X1) directly has a significant effect on Sustainable Tourism (Z), characterized by a P-value of 0.04 < 0.05. These results are supported by previous research by Sakshi et al. (2020), which states that Tourist Safety through tourism environmental policy has a significant effect on Sustainable Tourism. In order to achieve sustainable tourism at Matantimali Paragliding Tourism Destination, the government and the management of tourist attractions must be able to ensure the safety of visitors first. Some aspects of security and sustainable tourism have been well implemented, such as the protection of tourist attractions from wildlife, the preservation of trees and plants that make the environment comfortable for visitors, and the availability of canteen facilities with affordable food and beverage prices. The lack of trash facilities and trash bins will make visitors tend to litter, which will result in soil pollution and impact the sustainable environment.

Tourist Environmental Awareness (X2) in this study has no significant effect on Tourist Visiting Decision (Y) characterized by a P-value value of 0.58 > 0.05. This study differs from previous research, such as by (Touloun & Eddali, 2023), which states that environmental awareness can change tourist perceptions when determining which tourist destinations to visit because tourists tend to choose destinations that support the environmental conservation movement. The results of this study are different due to differences in visitor perceptions and the maintained natural beauty. Visitors to Matantimali Paragliding Destination know the importance of protecting the environment, but environmental awareness is not the main factor in their visit. Matantimali Paragliding Destination already has a beautiful environment, including good air quality, minimal pollution, stable soil, and clean water. These good natural conditions are already attractive enough for tourists without the need to specifically consider environmental awareness. Tourist Environmental Awareness (X2) directly has a positive effect on Sustainable Tourism (Y) characterized by a P-Value of 0.00 < 0.05. These results align with previous research by (Sharma et al., 2024), which states that tourists who are aware of the importance of conservation tend to support responsible tourism practices, such as sustainable management of natural resources and protection of local ecosystems. In order to support the implementation of Sustainable tourism at Matantimali Paragliding Destination, it is not only necessary to involve local communities, tourism managers, and local governments, but visiting tourists need to have nature environmental awareness. Sustainable Tourism is not only about sustainable environmental aspects but also about sustainable social and economic aspects. Sustainable Tourism (Z) has a direct influence on Tourist Visiting Decision (Y), characterized by a P-Value of 0.00 < 0.05. This statement is in line

with the findings of (C.-K. Lee et al., 2021), which state that tourist attractions that prioritize elements of sustainability with environmental conservation and support the local economy will attract visitors who have characteristics of caring about the environment. Matantimali Paragliding Destination must uphold the value of sustainable tourism. Matantimali Paragliding Destination can implement sustainable tourism by supporting the local economy, highlighting local culture, and collaborating with local governments to provide green investment programs, processing, and building infrastructure that prioritize environmentally friendly educational aspects.

Tourist Safety (X1) through Sustainable Tourism (Z) has no significant effect on Tourist Visiting Decision (Y) with a P value of  $0.12 > 0.05$ . Tourist safety at Matantimali Paragliding Destination is not the main factor influencing visiting decisions. The results of this study are in line with the results of research from (Mangali & Ortaleza, 2021), which states that tourist safety is only a supporting factor of accessibility to influence tourist visiting decisions. Despite inadequate road access and unmaintained public facilities, visitors feel that destination security is quite good compared to other destinations in Central Sulawesi. So, safety is not the main factor in determining whether or not to visit the Matantimali Paragliding Destination. Sustainable Tourism at Matantimali Paragliding Destination aims to maintain Safety and environmental sustainability, but its influence on visiting decisions is insignificant. This finding contradicts research from Mamula (Mamula Nikolić et al., 2021), which states that destinations that adopt sustainable tourism principles tend to provide visitors with a more positive tourism experience so that visitors can consider them. The aspects of sustainability that are applied are less prominent, such as cultural aspects and diversity of facilities, which makes this finding not in line with previous findings. Tourist Environmental Awareness (X2) has a significant influence on Tourist Visiting Decision (Y) through Sustainable Tourism (Z) with a P value of  $0.00 < 0.05$ . Previously, tourist environmental awareness did not influence visiting decisions because it was not the main reason for choosing a destination. Sustainable Tourism acts as an essential mediator between tourists' environmental awareness and their visiting decisions, as happened in the research of (Khan et al., 2022), which states that when tourism destinations implement sustainable management policies and practices, this can increase the attractiveness of destinations for tourists who care about sustainability. Implementing Sustainable Tourism principles at Matantimali Paragliding Destination, such as sustainable resource management, local community participation, and promoting environmentally friendly activities, strengthens this relationship. Matantimali Paragliding Destination can capitalize on tourists' environmental awareness to increase visitation by promoting the principles of Sustainable Tourism.

#### 4. CONCLUSION

The results showed that only some variables and indicators in this study were used because the data needed to meet valid and reliable standards. Tourist safety does not significantly influence tourist visit decisions at Matantimali Paragliding Destination. However, Tourist Environmental Awareness significantly influences sustainable tourism development through the principles of Sustainable Tourism. Sustainable Tourism acts as an essential mediator between tourist environmental awareness and visitation decisions, with its principles strengthening the relationship between environmental awareness and visitation decisions. Although tourist safety and Sustainable Tourism do not directly influence visitation decisions, they remain essential in sustainable tourism development. Based on the results of this study, it can be seen that there are still many tasks for destination managers and local governments in developing strategies to increase tourist visits by paying attention to safety aspects for visitors, fostering visitors' environmental awareness, and building more well-conceptualized sustainable tourism.

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#### REFERENCES

- Biswas, C., Deb, S. K., Hasan, A. A.-T., & Khandakar, Md. S. A. (2021). Mediating Effect Of Tourists' Emotional Involvement On The Relationship Between Destination Attributes And Tourist Satisfaction. *Journal Of Hospitality And Tourism Insights*, 4(4), 490–510. <https://doi.org/10.1108/Jhti-05-2020-0075>
- Cordeiro, J. K. R., Nóbrega, W. F. S., Oliveira, M. E. C. D., Gomes, K. A. L., Oliveira, T. A. D., & Oliveira, Â. G. R. D. C. (2023). Factor Analysis And Cronbach's Alpha For Studying The Knowledge Of Adolescents On Hiv/Aids: A Construct Validation Study. *Bioscience Journal*, 39, E39042. <https://doi.org/10.14393/Bj-V39n0a2023-62735>
- Ding, G., & Wu, J. (2022). Influence Of Tourism Safety Perception On Destination Image: A Case Study Of Xinjiang, China. *Sustainability*, 14(3), 1663. <https://doi.org/10.3390/Su14031663>

- Georgieva, D. V., & Bankova, D. (2021). Security And Safety Of Tourists As A Factor For Sustainable Tourism, Based On The Example Of Bulgarian Black Sea Resorts. *Proceedings Of Cbu In Economics And Business*, 2, 48–54. <https://doi.org/10.12955/peb.v2.254>
- Gill, N., Mckiernan, S., Lewis, A., Cherry, H., & Annunziato, D. (2020). Biosecurity Hygiene In The Australian High Country: Footwear Cleaning Practices, Motivations, And Barriers Among Visitors To Kosciuszko National Park. *Australasian Journal Of Environmental Management*, 27(4), 378–395. <https://doi.org/10.1080/14486563.2020.1838352>
- Han, H. (2021). Consumer Behavior And Environmental Sustainability In Tourism And Hospitality: A Review Of Theories, Concepts, And Latest Research. *Journal Of Sustainable Tourism*, 29(7), 1021–1042. <https://doi.org/10.1080/09669582.2021.1903019>
- Khan, I. U., Khan, S. U., & Khan, S. (2022). Residents' Satisfaction With Sustainable Tourism: The Moderating Role Of Environmental Awareness. *Tourism Critiques: Practice And Theory*, 3(1), 72–87. <https://doi.org/10.1108/Trc-04-2022-0007>
- Kock, N. (2019). Factor-Based Structural Equation Modelling: Going Beyond Pls And Composites. *Int. J. Data Analysis Techniques And Strategies*, 11(1), 1–28. <https://doi.org/10.1504/Ijdats.2019.096618>
- Lee, C.-K., Olya, H., Ahmad, M. S., Kim, K. H., & Oh, M.-J. (2021). Sustainable Intelligence, Destination Social Responsibility, And Pro-Environmental Behaviour Of Visitors: Evidence From An Eco-Tourism Site. *Journal Of Hospitality And Tourism Management*, 47, 365–376. <https://doi.org/10.1016/j.jhtm.2021.04.010>
- Lee, S. W. (2022). Methods For Testing Statistical Differences Between Groups In Medical Research: Statistical Standard And Guideline Of Life Cycle Committee. *Life Cycle*, 2, E1. <https://doi.org/10.54724/Lc.2022.E1>
- Lopez-Cordova, E. (2020). Digital Platforms And The Demand For International Tourism Services. *World Bank Policy Research Working Paper*. <https://doi.org/10.1596/1813-9450-9147>
- Ma, H., Chiu, Y., Tian, X., Zhang, J., & Guo, Q. (2020). Safety Or Travel: Which Is More Important? The Impact Of Disaster Events On Tourism. *Sustainability*, 12(7), 3038. <https://doi.org/10.3390/Su12073038>
- Mamula Nikolić, T., Pantić, S. P., Paunović, I., & Filipović, S. (2021). Sustainable Travel Decision-Making Of Europeans: Insights From A Household Survey. *Sustainability*, 13(4), 1960. <https://doi.org/10.3390/Su13041960>
- Mandić, D., Tomušilović, M., & Adžemović, M. (2020). The Importance Of Environmental Safety In The Application Of The Concept Of Smart Tourist Destinations. *Proceedings Of The Singidunum International Tourism Conference - Sitcon 2020*, 67–73. <https://doi.org/10.15308/Sitcon-2020-67-73>
- Mangali, G., & Ortaleza, M. (2021). *Attributes Of Travel Destinations That Influence Tourists' Decisions: A Systematic Review*. 4, 1–10. <https://doi.org/10.37227/Ithj-2021-03-247>
- Mim, M. K., Hasan, M., Hossain, A., & Khan, Y. H. (2022). An Examination Of Factors Affecting Tourists' Destination Choice: Empirical Evidence From Bangladesh. *Socioeconomic Challenges*, 6(3), 48–61. [https://doi.org/10.21272/Sec.6\(3\).48-61.2022](https://doi.org/10.21272/Sec.6(3).48-61.2022)
- Mokshein, S. E., Ishak, H., & Ahmad, H. (2019). The Use Of Rasch Measurement Model In English Testing. *Jurnal Cakrawala Pendidikan*, 38(1), 16–32. <https://doi.org/10.21831/Cp.V38i1.22750>
- Nguyen, H. (2021). Sustainable Tourism In The South Of Vietnam From The Tour Guide's Viewpoint. *Ra Journal Of Applied Research*, 07(06). <https://doi.org/10.47191/Rajar/V7i6.05>
- Pirghie, T. F., & Matei, E. (2020). Importance Of Environment Quality In Sustainable Tourism Destinations: The Young Tourists' Perception. *Human Geographies – Journal Of Studies And Research In Human Geography*, 14(2). <https://doi.org/10.5719/Hgeo.2020.142.7>
- Pramita, F., Taufik, M., Jumailah, Ikal, I., & Subroto, G. (2023). The Significance Of Environmental Awareness For Protecting Nature And Cherishing The Earth. *Bio Web Of Conferences*, 79, 01001. <https://doi.org/10.1051/Bioconf/20237901001>
- Quintela, J., Costa, C., & Correia, A. (2023). *Quintela, J.A., Costa, C., & Correia, A. (2023). Health, Wellness, And Happiness: A Demand Analysis. International Conference On Tourism Research*. <https://doi.org/10.34190/Ictr.6.1.1330>

- Sakshi, Shashi, Cerchione, R., & Bansal, H. (2020). Measuring The Impact Of Sustainability Policy And Practices In Tourism And Hospitality Industry. *Business Strategy And The Environment*, 29(3), 1109–1126. <https://doi.org/10.1002/Bse.2420>
- Samundeswari, S. C., & S, S. (2023). Analysis Of Factors Affecting Safety In Tourism. *International Journal For Modern Trends In Science And Technology*, 9(01), 69–73. <https://doi.org/10.46501/Ijmtst0901012>
- Santoso, A. (2022, July 21). *Bukit Matantimali, Spot Paralayang Kelas Dunia Di Sulawesi Tengah*. Traveling Yuk. <https://travelingyuk.com/spot-paralayang-kelas-dunia-di-sulawesi-tengah/307804>
- Sari, U. P., & Bachri, S. (2022). *Pengaruh Daya Tarik Wisata Dan Fasilitas Layanan Terhadap Minat Berkunjung Kembali Wisatawan*.
- Sharma, K., Sarkar, P., & Lab, I. (2024). A Study On The Impact Of Environmental Awareness On The Economic And Socio-Cultural Dimensions Of Sustainable Tourism. *International Journal Of Multidisciplinary Research & Reviews*, 3, 84–92.
- Stajčić, J., & Živković, O. (2020). Examples Of Good Practice In Sustainable Tourism Development. *Proceedings Of The Singidunum International Tourism Conference - Sitcon 2020*, 117–127. <https://doi.org/10.15308/Sitcon-2020-117-127>
- Suriady, I., Ningsih, F. P., & Rahmarini, G. M. (2021). City Branding Dinas Pariwisata Dan Ekonomi Kreatif Pasca Bencana Alam Melalui Proses Rebranding Kota Palu. *Jurnal Ekonomi, Sosial & Humaniora*, 2(10), Article 10.
- Thahir, H., Hadi, S., Zahra, F., Arif, I., Murad, M. A., & Lolo, M. H. (2021). Issues, Challenges And Strengths Of Sustainable Tourism Supply Chain After Covid-19 In Toge National Park-Sulawesi, Indonesia: A Preliminary Findings. *Business And Management Research*, 163. <https://doi.org/10.2991/Aebmr.K.210220.048>
- Tokodi P. (2020). Spanyolország, Madrid: Turizmus És Biztonság?! *Belügyi Szemle*, 68(4. Ksz.), 108–122. <https://doi.org/10.38146/Bsz.Spec.2020.4.7>
- Touloun, C., & Eddali, R. (2023). Tourist Environmental Behaviour: A Narrative Review. *Environment-Behaviour Proceedings Journal*, 8(23), 247–252. <https://doi.org/10.21834/Ebj.V8i23.4510>
- Trišić, I., Štetić, S., Privitera, D., Petrović, M. D., Maksin, M., Vujović, S., Jovanović, Z., & Kalinić, M. (2021). Perspectives On Sustainable Tourism Development In The Hotel Industry—A Case Study From Southern Europe. *Sustainability*, 13(10), 5563. <https://doi.org/10.3390/Su13105563>
- Ünal, A. (2020). Turistlerin Destinasyon Seçimlerinde Etkili Olan Faktörlerin Belirlenmesine Yönelik Bir Araştırma: Göbeklitepe Örneği. *Journal Of Tourism Theory And Research*, 6(2), 130–139. <https://doi.org/10.24288/Jtr.686617>
- Zeng, L., Li, R. Y. M., & Zeng, H. (2023). Weibo Users And Academia's Foci On Tourism Safety: Implications From Institutional Differences And Digital Divide. *Heliyon*, 9(3), E12306. <https://doi.org/10.1016/J.Heliyon.2022.E12306>