

Exploration of The Determining Factors of Attraction Situ Bagendit I Tourism Object Using Analytic Hierarchy Process (AHP)

Wati Susilawati¹, Athiya Noura², Dini Turipanam Alamanda³, Syntia Apriani⁴

^{1,2,3}Universitas Garut, Indonesia, ² Universitas Padjadjaran, Bandung, Indonesia

¹w.susilawati@umiga.ac.id

* corresponding author

ARTICLE INFO

Article history:
Received 19 March 2022
Revised 23 May 2022
Accepted 26 June 2022

Keywords:
Tourist attraction,
Situ Bagendit I,
Analytic Hierarchy Process

ABSTRACT

This study aims to explore the determinants of the attractiveness of the Situ Bagendit I tourist attraction by using the analytic hierarchy process (AHP). This research uses mixed methods, exploratory type. The survey was conducted by observing and interviewing informants to obtain primary data. Further data by distributing questionnaires and analyzing the data using the analytic hierarchy process (AHP) technique. While secondary data or data obtained from articles, textbooks, research, online news, and articles on websites and other sources. Data analysis using Expert Choice technique based on Analytic Hierarchy Process (AHP) and data verification using triangulation. The findings show that based on the results of the highest assessment criteria, namely ease of access (0.463), exciting attractions (0.398), and modern facilities (0.139). As an alternative factor, equestrian tourism (0.206) is an important part of the attraction of Situ Bagendit I attractions, while parks (0.196), tracking tours (0.188), amphitheater shows (0.153), children's playgrounds (0.133), and water tourism (0.124) becomes a supporting role in increasing the attractiveness of the Situ Bagendit I tourist attraction. It can be concluded that equestrian tourism is an attractive factor for the Situ Bagendit I tourist attraction where tourists can travel and see the view around the tourist attraction while riding.

Copyright © 2017 International Journal of Artificial Intelligence Research.
All rights reserved.

I. Introduction

Today's tourism has developed and is trying to attract tourists and provide the best service to tourists. Tourism has also become the core economy for Indonesia. The foreign exchange value of the Indonesian tourism sector is targeted to increase to US\$1.7 billion or around Rp.24 billion in 2022 [2]. Apart from being an economic sector that helps national development, tourism can also provide other benefits, namely in terms of culture which can introduce the culture to tourists.

Indonesia is a country with many tourist destinations. Indonesia has many tourism places that have the characteristics of different places as well as high cultural values and historical stories. Tourist destinations in Indonesia are visited by both domestic tourists (wisnus) and foreign tourists (tourists). However, in 2020, foreign tourist arrivals experienced a very drastic decline, which was 74.84% compared to 2019 [2]. The decline caused by the COVID-19 pandemic resulted in huge losses for the country. The decline in foreign tourist arrivals can be seen from Table 1 below:

Table 1 Data on Foreign Tourist Visits to Indonesia

International Tourism	
2016	11.519.275
2017	14.039.799
2018	15.810.305
2019	16.106.955
2020	3.410.542

Source : (Kemenparekraf, 2020)

Based on Table 1.1, the data on foreign tourist visits to Indonesia can be seen from 2016 to 2019 the number of visits has increased. Meanwhile, from 2020 the number of visits has decreased drastically, which is 3,410,542. Garut Regency has become one of the tourist destinations in the province of West Java. Garut Regency has a variety of tourist attractions in terms of nature or scenery, from culture and it can all be used as an attraction for tourists to visit. It can be seen the visits of foreign tourists and foreign tourists to tourism objects in Garut Regency in Table 2 below:

Table 2 Data of Foreign Tourists and Foreign Tourists Visits to Garut Regency Tourism Objects

Tourist attraction	Wisman	Wisnus
Cipanas	78	165,371
Situ Cangkuang	67	83,969
Situ Bagendit 1	40	69098
Tourist Village Situ Bagendit 2	-	17,226
Kawah Darajat	24	86,803
Karacak Valley	-	8,064
Rose Garden	-	26,851
Curug Orok	16	53,313
Santolo Beach	38	98,627
Dear Heulang Beach	29	88,66

Source : (Disparbudgarut, 2020)

Based on Table 2 regarding data on foreign tourists and foreign tourists visiting tourist attractions in Garut Regency in 2020, for foreign tourists visits that have the highest number, namely tourist attraction visits to Cipanas, which amount to 78, and foreign tourists visits totaling 165,371. As for some tourist attractions that have no visits at all from foreign tourists due to the Covid-19 pandemic, such as Situ Bagendit 2 Tourism Village, Karacak Valley and Rose Gardens.

Garut Regency itself has a tourist destination that is in great demand by tourists, namely Situ Bagendit I. Situ Bagendit is one of the three most tourist attractions in Garut Regency. Situ Bagendit I is located in Bagendit Village, Banyuresmi District, Garut Regency. Situ Bagendit I is a tourist attraction that is famous for its folklore. Situ Bagendit I as one of the tourist destinations in Garut Regency has its own beauty such as attractive natural scenery and attractive tourist facilities. The following is data on the arrival of foreign tourists and domestic tourists to Situ Bagendit I in Table 3

Table 3 Data of Foreign Tourists and Foreign Tourists Visits Situ Bagendit I

Year	Wisman	Wisnus
2016	452	98278
2017	255	284552
2018	96	148033
2019	135	180584
2020	40	69098

Source : (Disparbudgarut, 2020)

Based on Table 3, it can be seen that the number of foreign tourists and foreign tourists who visited the least or experienced a drastic decline occurred in 2020 which caused tourist visits to decrease due to the implementation of the lockdown and in November 2020 in Garut Regency.

Currently, Situ Bagendit I tourism is developing tourist attractions to become world-class tourism so that for the time being they do not accept tourist visits. The development of the Situ Bagendit I tourist attraction into a world-class tourism should be well prepared in order to further increase its attractiveness so that more tourists are interested in visiting. Tourist attraction is a very important thing and must be owned by a tourist attraction.

Tourist attraction can be influenced by various things, including tourist satisfaction with tourist attractions. Statistically significant determinants of the level of tourist satisfaction include cost/service, facilities/support, and accessibility [7]. Tourism components that need to be considered by tourism managers include Attractions, Amenities, Accessibility, and Hospitality [8]. This study

emphasizes three important components so that tourist attractions can attract tourists, namely exciting attractions, modern facilities, and convenience access.

Based on the background that has been described, the researchers are interested in conducting research with the title "Exploration of the Determinants of Attraction Attraction Situ Bagendit I Using the Analytic Hierarchy Process (AHP)"

II. Methods

The methods used in this research are qualitative and quantitative methods or mixed-methods of exploratory type. As for the purpose, this study uses a descriptive method because it aims to describe clearly the problems or phenomena regarding the attraction of the Lake Bagendit I tourist attraction.

The unit of analysis of this research is the individual where information or data is obtained from the results of interviews and distributing questionnaires to the manager of the tourist attraction Situ Bagendit I. The sampling technique in this study uses a purposive sampling method, namely the informant, namely the Head of UPTD Situ Bagendit, officials of the Tourism Office Garut Regency, Bagendit Village officials and respondents who were directly selected by the researcher.

The types of data used in this study are primary data and secondary data. The primary data in this study were observations, interviews, and questionnaires. While secondary data or data obtained from articles, textbooks, research, online news, and articles on websites and other sources. Data analysis using Expert Choice technique based on Analytic Hierarchy Process (AHP) and data verification using triangulation.

III. Result and Discussion

Data collection in this study was carried out by interviewing the Head of UPTD Situ Bagendit and the Head of the Sub-Division of TU Situ Bagendit. The data in this study used the Analytic Hierarchy Process (AHP) and after that, selected criteria and alternatives. Once obtained, a hierarchical model can be made as shown in Figure 1 below:

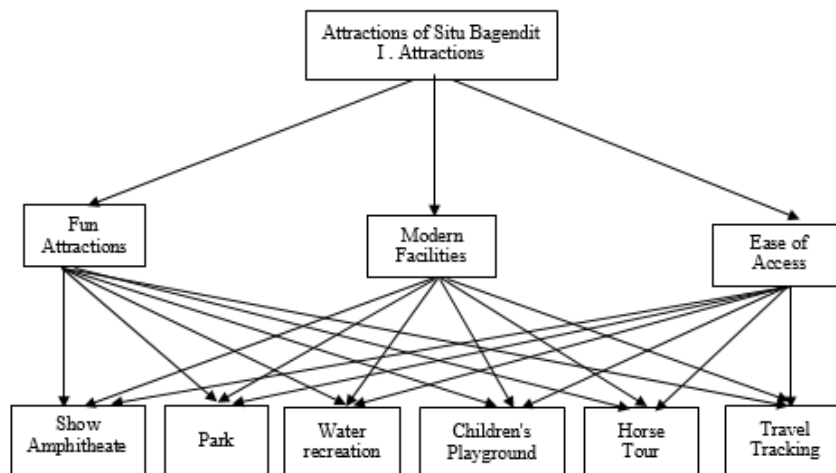


Figure 1 Model Hierarchy of Attraction Situ Bagendit

For the paired matrix of criteria, it can be seen in Table 4 below:

Table 4 Criteria Paired Matrix

A/B	Fun Attractions	Modern Facilities	Ease of Access
Fun Attractions	Not filled		
Modern Facilities	Not filled	Not filled	
Ease of Access	Not filled	Not filled	Not filled

The results of the highest assessment criteria are ease of access 0.463, for the second rank, namely exciting attractions at 0.398 and for the last, modern facilities at 0.139.

Ease of Access is the most important determining factor in increasing the attractiveness of the tourist attraction of Situ Bagendit I. More and more the tourism industry recognizes the importance of developing various types of attractions, facilities, and infrastructure to increase tourist attraction. As competition in the tourism industry increases, it becomes more important for destinations to choose a tourism location and accessibility which is one of the most complex tasks in meeting planning, as all participating elements must be considered [7]. Situ Bagendit I needs to do in-depth planning regarding road access, private and public transportation, time to travel, and information about the location.

The introduction and improvement of regional tourism can increase regional income. Nowadays tourism with interesting activities such as recreational sports has become the main tourist attraction as regional tourism [21]. After determining the rural location and positioning it as a tourist attraction, the manager then takes advantage of the growth of tourism in the area. Doing fun and adventurous activities is an aspect of tourism. Tourists step outside the regularities of everyday life to places and experiences that are pleasurable [22]. There are two main reasons why fun activities such as recreational sports are important for tourist attraction. First, the low population so that there are many natural local facilities. Second, there are activities that require certain natural conditions. Situ Bagendit I has aspects that are in accordance with the main reason for the importance of activities in tourism attractions. Situ Bagendit I which is located in Garut Regency does not have a large population like in big cities so it is more possible for the preservation of a tourist attraction, besides the natural conditions at Bagendit Lake allow it to do many fun activities such as walking around using horses or canoes and doing activities. tracking tourism around Situ Bagendit I. The activities offered by the tourist attraction must be integrated with other tourism products and services available at the destination [21]. This includes a number of tourism services, including restaurants, shopping and other tourist activities.

Facilities related to the attraction of the Situ Bagendit I tourist attraction can refer to various things such as a large parking lot so that it can accommodate many vehicles, attractive photo spots so that many tourists are interested, toilets, children's playgrounds, rest areas and others. More modern facilities can be done using an information and communication technology (ICT) approach in the tourism sector. ICT in the tourism sector in 2020 and in the future refers to Ambient Intelligence (AmI) Tourism which uses the Internet of Things, the Internet of Everything, fifth generation mobile network (5G), Radio Frequency Identification (RFID), mobile devices, wearable smartphones and wearables, 3D printing, apps along with APIs, Cryptocurrency and Blockchain, sensor and beacon networks, pervasive computing, Artificial Intelligence (AI) and machine learning (ML) [23]. The ICT-enabled tourism experience at Situ Bagendit I is expected to support tourists to create value and change in industry structures, processes and practices, having an impact on service innovation, strategy, management, marketing, and competitiveness.

Alternative paired matrices can be seen in Table 5 below:

Table 5 Alternative Paired Matrix

A/B	Amphitheater Show	Garden	Water recreation	Children's Playground	Horse Tour	Travel Tracking
Amphitheater Show	Not filled					
Garden	Not filled	Not filled				
Water recreation	Not filled	Not filled	Not filled			
Children's Playground	Not filled	Not filled	Not filled	Not filled		
Horse Tour	Not filled	Not filled	Not filled	Not filled	Not filled	
Travel Tracking	Not filled	Not filled	Not filled	Not filled	Not filled	Not filled

Further analysis can be seen in Figure 2 below:

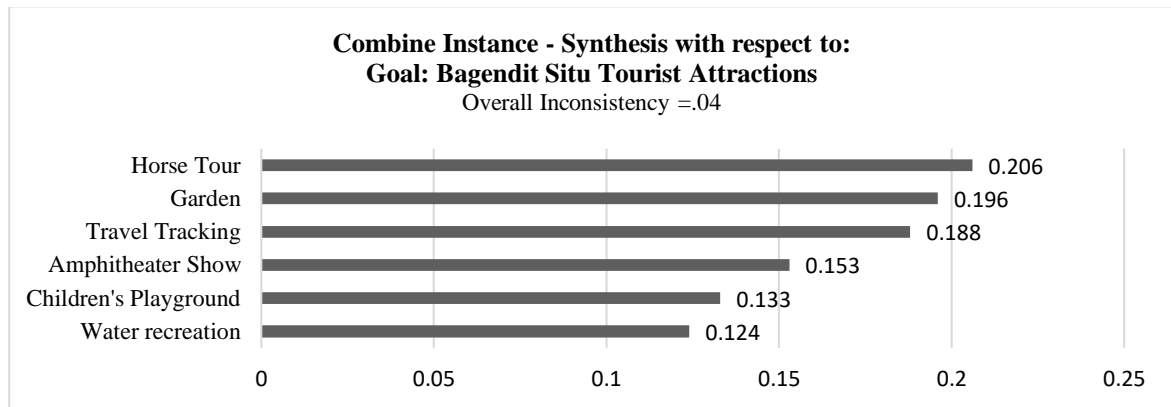


Figure 2 Summary View

Based on Figure 2., the results of the expert choice software show that the overall inconsistency value is 0.04 where it is less than 0.10 then the decision is acceptable or consistent. For the highest alternative, the results of the assessment are horse riding tours of 0.206, for the second rank, namely parks with 0.196, for the third rank, namely tracking tours, 0.188, for the fourth rank, namely the amphitheater show, 0.153, for the fifth rank, children's playgrounds are 0.133, and for the fifth rank, children's playgrounds are 0.133. The sixth is water tourism of 0.124.

Equestrian tourism is indeed popular in regional tourism because of the interrelationships between fauna and nature. Horse tourism has recorded significant growth over the last two decades due to the increasing popularity of equestrian sport in developed countries [11]. Even so, horse tourism has special requirements to be met, such as horses are completely tame and are used to being ridden by humans. A special horse track that is traversed by horses to increase the safety of both passengers and people around. Horse tours often bring a special feeling to the passengers which is the main attraction for horse tours. Passengers often go on horse tours as well as see the scenery around Situ Bagendit I. So Nature plays an important role. Research suggests that when on horseback tours, there are feelings such as relaxation, escape, romance, and nostalgia [18]. The relaxation you feel comes from the peace that exists in nature, an escape based on the novelty and uniqueness of the destination from the stagnant and boring everyday life.

Meanwhile, according to Mr. Endang Heri as informant 1, he argued that equestrian tourism was in great demand by tourists as follows:

"Equestrian tours are in great demand by tourists because of the view and the location which is quite far to go around there. In addition, equestrian tourism means that there is potential that must be developed because the track is quite far when traveling around there, and this will also be seen again in planning from development whether the facilities prioritize road tracks or horse riding. Because later it will be an area for riding tours and tracking tours in the same area. And even if riding is prioritized, it's definitely not riding like a race, but more about traveling around on horseback."

This opinion is also supported by the opinion of Mr. Dedi Sopandi as the second informant as follows:

"In Bagendit, after being revitalized, there are deserts along the outskirts of the lake, so equestrian tours are more desirable because visitors can ride horses while looking at the expanse of Bagendit in real and safe conditions, not tired and not polluted like riding a motorbike, and with horse riding tours you can go around everything. Bagendit's bank which consists of 6 Gates"

Therefore, equestrian tourism is ranked first because it is in great demand by tourists. Tourists can go around there while riding and see the view around the tourist attraction of Situ Bagendit I and after the revitalization is complete, tourists can surround Situ Bagendit I more broadly which consists of 6 gates according to the development plan. However, equestrian tourism is caught up in the opposite trend of high demand for horse tourism and criticism of the welfare of horses [11]. Therefore, it is important for managers to know the behavioral and biological characteristics of animals in order to reduce the lack of quality of life in animals.

Parks are unique in tourist attractions because they offer a beauty aspect to tourists. This aspect of beauty has received attention in the marketing literature with a focus on tourist experiences that refer to cultural and nature-based experiences [19]. The park at Situ Bagendit emphasizes the natural beauty combined with human art to be able to create a beautiful blend in the Situ Bagendit park. In the field of tourism, the experience of nature in beauty provides an opportunity to discover, express, and understand aspects of reality that are at the root of our existence and make life worthwhile, enjoyable, and sometimes painful [19]. Situ Bagendit Park which offers beauty is able to display harmony, design, and an attractive environment that affects overall satisfaction for tourists.

Tracking tourism owned by Situ Bagendit emphasizes the uniqueness of the emergence of collaboration from the health and tourism aspects. In addition to bringing pleasure when traveling, tourists are also offered activities that can improve health. Several studies have been conducted to support collaboration between health and tourism. Research in Thailand states that Thailand has an advantage in attracting medical tourists. This is due to the low cost of living, a tourist-friendly culture, and a relaxed culture for recovering patients [10]. This analysis of health and tourism collaboration also takes place in Singapore. Research shows that although there is no causal relationship between health care in international tourism in the short term, the effect of both variables is positive in the long term [17]. Although the health aspect of tracking tourism is not a health care as a medical institution, the collaboration of these two aspects can continue to be developed.

The amphitheater show features cultural performances at Situ Bagendit I in an open space with the audience surrounding the performance stage with a semi-circle shape and high tiered seating. The concept of a cultural approach in tourism can be an attraction for tourist objects. In particular, tourism can strengthen, enrich, maintain and develop culture in a sustainable manner based on the face-to-face articulation between local culture and tourists [13] So that cultural performances at Situ Bagendit I can reciprocally create an attraction for tourists and help the region to preserve and introduce its culture as a sustainable form of culture.

Children's play tourism at Situ Bagendit I offers a place for children to be able to play actively at Situ Bagendit I. Children have their own different perspectives on tourism from adults. Research suggests that children treat tourism as an opportunity to step up their daily game whereas adults tend to treat tourism as an escape from their daily work and routine life [20]. This difference in perspective can affect how managers create children's play tours that may differ from the expectations and interests of the children themselves. Situ Bagendit I can create children's play tours according to the main motivation of children so that they can increase the attractiveness of tourist objects and allow families with children to be interested in visiting. The main motivations for children's tourism include playing and learning tours, gathering with family and/or school friends, etc. [20].

Water tourism in Situ Bagendit I does not directly use the water in the lake. Available water tourism such as using a canoe to circle the lake or tourist transportation in the form of a swan or a duck. However, water conditions still affect how tourists perceive water tourism in Situ Bagendit I. Based on research conducted to test the water quality in Situ Bagendit, it can be concluded that the waters of Situ Bagendit are in a status polluted with organic matter and eutrophication with hypereutrophic trophic status [9]. This should be a reference for the local government to improve the water quality of Situ Bagendit considering the important role of Situ Bagendit in tourism and irrigation. Bagendit Situ which has a polluted status and is eutrophicated can cause reduced water quality which can lead to various health problems characterized by abundance and plant biomass [9].

Assessing the impact of Covid-19 on tourist destinations, these values must also be evaluated in relation to institutional conditions. Overcoming this, the manager of tourist attractions can carry out strategic management of the pandemic response including the responsibility and concern of the local population and community, waiters and workers must have knowledge about Covid-19 so that they can respond appropriately to visitors who may be affected by Covid-19, and open communication. between tourism stakeholders and local health authorities [14].

IV. Conclusion

Based on the results of the research and discussion that have been stated in the previous chapter, it was found that the findings produced in this study were to explore the determinants of the attractiveness of the Situ Bagendit I tourist attraction. the highest ranking, the Fun Attractions Criteria

ranked second, the Modern Facilities Criteria being the last rank. The alternative that ranks first is Horse Tours with the highest value which is an alternative that can explore the attraction of Situ Bagendit attractions, then parks, tracking tours, amphitheater shows, children's playgrounds, and water tourism are the last rank compared to other alternatives.

The findings in the hierarchical analysis of this process prove that equestrian tourism is an important factor in the attraction of Situ Bagendit I tourism objects because tourists can go around there while looking at the view where seeing a location far enough to go around there with this equestrian tour can make tourists can go around there on horseback.

A. Suggestion

After this research was carried out, the suggestions that the researchers put forward to the manager of the Situ Bagendit I tourist attraction should pay more attention to the attractions of the Situ Bagendit I tourist attraction which are the attractions that have the potential to be developed, in accordance with the findings that equestrian tourism can be a tourist attraction. Situ Bagendit I by exploring areas that can be used as riding areas so that they are not in the same area with tracking tours so that tourists feel comfortable when they are on horseback tours or tracking tours, or master plan adjustments. And besides that, it must also be considered in the provision of facilities for equestrian tours such as in the provision of horses.

References

- [1] Kemenpanrb. (2021, Desember). Kemenparekraf Menargetkan Devisa Pariwisata Naik 1,7 Miliar Dolar AS di 2022. Retrieved from <https://www.menpan.go.id/>: <https://www.menpan.go.id/site/berita-terkini/berita-daerah/kemenparekraf-menargetkan-devisa-pariwisata-naik-1-7-miliar-dolar-as-di-2022>
- [2] Kemenparekraf. (2020). Statistik Kunjungan Wisatawan Mancanegara 2020. Retrieved from <https://www.kemenparekraf.go.id/>: <https://www.kemenparekraf.go.id/statistik-wisatawan-mancanegara/Statistik-Kunjungan-Wisatawan-Mancanegara-2020>
- [3] Disparbudgarut. (2020). Data Pengunjung. Retrieved from <https://visitgarut.garutkab.go.id/>: <https://visitgarut.garutkab.go.id/data-pengunjung/>
- [4] Antara. (2020, November). Situ Bagendit Ditata Jadi Wisata Kelas Dunia, Lihat Konsepnya. Retrieved from <https://travel.tempo.co/>: <https://travel.tempo.co/read/1405403/situ-bagendit-ditata-jadi-wisata-kelas-dunia-lihat-konsepnya/full&view=ok>
- [5] Ramadhian, N. (2020, September). Situ Bagendit di Garut Bakal Punya 6 Zona Wisata, Apa Saja? Artikel ini telah tayang di Kompas.com dengan judul "Situ Bagendit di Garut Bakal Punya 6 Zona Wisata, Apa Saja?", Klik untuk baca: <https://travel.kompas.com/read/2020/11/09/210100827/situ-bagen>. Retrieved from <https://travel.kompas.com/>: <https://travel.kompas.com/read/2020/11/09/210100827/situ-bagendit-di-garut-bakal-punya-6-zona-wisata-apa-saja-?page=all>
- [6] Prehanto, D. R. (2020). BUKU AJAR MODEL SISTEM PENDUKUNG KEPUTUSAN DENGAN AHP DAN IPMS. Surabaya: Scopindo Media Pustaka.
- [7] Kim, W. G., & Kim, H. C. (2004). The Analysis of Seoul as an International Convention Destination. *Journal of Convention & Exhibition Management*, 5(2), 69–87. doi:10.1300/j143v05n02_04 .
- [8] Revida, E., Purba, S., Permadi, L. A., Putri, D. M., Tanjung, R., Djumaty, B. L., . . . S. (2021). Inovasi Desa Wisata: Potensi, Strategi dan Dampak Kunjungan Wisata. Yayasan Kita Menulis.
- [9] Syahinsyah, R. K. (2019). TINGKAT EUTROFIKASI SITU BAGENDIT BERBASIS DATA PLANKTON. Diss. Universitas Pendidikan Indonesia.
- [10] Ivy, T. (2007). Healthcare tourism in Thailand: Pain ahead? *Asia-Pacific Biotech News* 11.08 : 493-497.
- [11] Tomljenović, R., Boranić-Živoder, S., & Čorak, S. (2018). HORSE RIDING TOURISM – DEFINITIONAL CONUNDRUM. 4th International Rural Tourism Congress, Congress Proceedings,, 278-287.
- [12] Arpornpisal, C. (2018). Tourism Elements Influence the Decision Making in Traveling to Visit Phra Pathom Chedi, Nakhon Pathom, Thailand. *Asian Administration and Management Review*.

- [13] Terkenli, T. S., & Georgoula, V. (2020). Tourism and Cultural Sustainability: Views and Prospects from Cyclades, Greece. *Sustainability*, 14, 307. <https://doi.org/10.3390/su14010307>.
- [14] Jamal, T., & Budke, C. (2020). Tourism in a world with pandemics: local-global responsibility and action. *Journal of Tourism Futures*, Vol. 6 No. 2, pp. 181-188. <https://doi.org/10.1108/JTF-02-2020-0014>.
- [15] Saaty, T. (1990). How to make a decision: The analytic hierarchy process. *European Journal of Operational Research* Volume 48, Issue 1, 5 September 1990, Pages 9-26. [https://doi.org/10.1016/0377-2217\(90\)90057-I](https://doi.org/10.1016/0377-2217(90)90057-I).
- [16] Vaidya, O., & Kumar, S. (2006). Analytic hierarchy process: An overview of applications. *European Journal of Operational Research* Volume 169, Issue 1, 16 February 2006, Pages 1-29. <https://doi.org/10.1016/j.ejor.2004.04.028>.
- [17] Lee, C. G. (2010). Health care and tourism: Evidence from Singapore. *Tourism management* 31.4, 486-488 <https://doi.org/10.1016/j.tourman.2009.05.002>.
- [18] Tolls, C., & Carr, N. (2020). The role of nature on horse trail rides: tourist experience expectations. *Current Issues in Tourism*, <https://doi.org/10.1080/13683500.2020.1774515>.
- [19] Breiby, M. A., & Slåtten, T. (2018). The role of aesthetic experiential qualities for tourist satisfaction and loyalty. *International Journal of Culture, Tourism and Hospitality Research*, 1-14 <https://doi.org/10.1108/IJCTHR-07-2017-0082>.
- [20] Zhong, S., & Peng, H. (2021). Children's tourist world: Two scenarios. *Tourism Management Perspectives*, <https://doi.org/10.1016/j.tmp.2021.100824>.
- [21] Costa, C., & Chalip, L. (2005). Adventure Sport Tourism in Rural Revitalisation*/An Ethnographic Evaluation. *European Sport Management Quarterly*, 257/279 <https://doi.org/10.1080/16184740500190595>.
- [22] Cloke, P., & Perkins, H. (2002). Commodification and adventure in New Zealand tourism. *Current issues in tourism* 5.6, 521-549 <https://doi.org/10.1080/13683500208667939>.
- [23] Buhalis, D. (2019). Technology in tourism-from information communication technologies to eTourism and smart tourism towards ambient intelligence tourism: a perspective article. *Tourism Review*, <https://doi.org/10.1108/TR-06-2019-0258>.