

Article

Accessibility and Tourist Satisfaction—Influencing Factors for Tourism in Dobrogea, Romania

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Abstract: Dobrogea is a region in Romania that boasts a rich cultural heritage, with a significant number of historical monuments, as well as breathtaking landscapes that attract tourists. The aim of this study was to evaluate the level of accessibility for seven of the most popular tourist attractions in Dobrogea, which were selected on the basis of their physical, geographic, religious, and historical significance. Furthermore, the level of satisfaction among tourists who visit each attraction was also assessed. Methodologically, several working and data processing methods specific to accessibility analysis were used, and graphic materials were produced to highlight the results obtained. To analyse tourist satisfaction, the researchers conducted interviews with 718 tourists who visited the attractions between June and September of 2022. The findings of this study can provide valuable information to local communities regarding the tourism potential of the region and the accessibility of its attractions. These data can be used to identify areas where roads need to be built or rehabilitated to improve accessibility to important tourist sites. By providing easy access to Dobrogea’s many attractions and ensuring that tourists are satisfied with their experiences, the region can become a top tourist destination in Romania.

Keywords: tourism; monuments; culture; accessibility; tourist satisfaction



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1. Introduction

In today’s socioeconomic conditions, the desire for active relaxation is highly practised. Natural and cultural heritage sites are the primary attraction for those seeking an escape from their daily routine. In the process of travelling to these heritage monuments, a desire for knowledge, discovery, and connection to the past of that geographic space emerges. This phenomenon is becoming more prevalent as society develops. People need to rediscover themselves and, above all, have access to the past and to the essence of traditional culture. Modern society can unwittingly destroy or neglect the cultural values of local communities [1]. However, in the current circumstances, there is increasing attention being paid even to natural monuments; together, they can form a complete picture that is often deemed necessary. A symbiosis can be established between the individual and the place they visit, irrespective of whether the abundance of nature surpasses the historical past.

The attractiveness of natural and cultural heritage sites can be influenced by the level of local economic development, demographic characteristics such as the population size or ethnic structure [2–4], and local or regional urbanisation phenomena [5–7]. Nevertheless, these sites are appreciated more when human and natural interventions have not been destructive. They can even facilitate a stronger connection between humans and nature. Modern humans today are not easily surprised by their surroundings. Technology provides numerous tools for discovering new things and places [8]. However, it is important to keep in mind that technology cannot fully replace direct communication, the exchange of information, and local sensations and perceptions. These are the things that can make

someone come back to a place, regardless of its accessibility [9]. The attractiveness of cultural and natural landmarks and the satisfaction they offer can influence human behaviour, transforming historical monuments or natural landmarks into tourist destinations.

The relationship between tourist satisfaction and accessibility has been extensively studied in the tourism literature [10–12]. The concept of satisfaction in consumer behaviour research refers to the psychological state of an individual that arises when the emotional response to their expectations aligns with their prior feelings about a consumption experience [13]. Tourist satisfaction is a complex phenomenon that is influenced by various factors, as noted in previous studies [14,15]. Shahrivar (2012) [16] identified several major destination attributes that significantly affect tourist satisfaction, including natural and cultural factors, shopping opportunities, accessibility, infrastructure, reception, services, and cost. The concept of accessibility in tourism was defined by Ghose and Johann (2018) [17] as the ease with which desired goods, services, activities, and destinations can be reached through the availability, affordability, and convenience of transportation facilities and information, or the geographic distribution of activities and destinations. Accessibility is a key attribute of tourism and hospitality, and it can be understood as an attribute of the destination image that influences tourist satisfaction [18,19]. The conceptual framework of tourism satisfaction highlights the direct impact of accessibility on tourist satisfaction. In particular, Castro et al. (2017) [20] emphasised the crucial role of tourist accessibility in trip planning, as tourists require accurate and timely information about safe activities and sites, as well as entertainment, leisure activities, restaurants, and accommodation.

Dobrogea is a geographical region located in eastern Romania, situated between the Danube River and the Black Sea. Its long and rich history has facilitated the construction of many cultural and historical monuments that are now part of the national heritage [21,22]. Each locality in the region has an important collection of historical monuments, listed in the inventory of cultural heritage sites compiled by the Romanian Ministry of Culture. Despite this wealth, few of these monuments have been studied, made known, or maintained and integrated into tourist or cultural circuits [23,24]. However, this can be an advantage for those who wish to discover the past of this province.

In this study, we aim to analyse, from the perspective of accessibility and tourist satisfaction, seven of the heritage sites located in the Dobrogea region (Figure 1). The details provided by this study can support those interested in opening new cultural tourism routes, especially ones that promote sustainable tourism [25,26]. The natural attractions included in these routes can be part of the cultural category, where spaces with traces of ancient human settlement can be found.



Figure 1. Location of the study area. Data source: <https://geo-spatial.org/>, accessed on 1 April 2023.

The selection of monuments for analysis was based on the list of historical monuments created by the Ministry of Culture in Romania, while the natural landmarks (Dobrogei Gorges, Canaraua Fetii, and Macin Mountains) are the most well-known physiographic formations in Dobrogea. Information regarding satisfaction was obtained through interviews with people who visited these landmarks conducted between June and September 2022. A total of 718 individuals of different ages, education levels, and occupations were interviewed, and their geographic origin was also taken into account.

To calculate the accessibility, we used specific programs such as OpenStreetMap (OSM) Google Maps and Maps Directions, applying the API method [8,27,28]. These programs are described in Section 2, and the results of their application in the field can be seen in the two graphical representations attempting to capture tourist accessibility for the Dobrogea region during the weekdays and weekends.

It is necessary to identify the areas with the highest accessibility and what factors contribute to this accessibility, as well as the areas with lower accessibility. This information could be useful, especially for local communities and through local administrations, to find solutions for creating or improving road networks.

Tourist satisfaction is the ultimate goal of tourism activity. An important step in this study was to identify the main elements that create satisfaction for tourists visiting each analysed tourist attraction.

2. Methods

2.1. Selection of Tourist Objectives

Dobrogea is a region with an impressive number of tourist attractions, covering the entire range of attractions that can be valorised for tourism. Given the purpose of this study, which is to analyse accessibility and tourist satisfaction, it was necessary to choose attractions that are part of a tourist circuit or have local tourist value. Therefore, the selection of attractions was made considering the following criteria:

- Visited by tourists (tourist attraction);
- Provides on-site information such as informative panels;
- Has its own website or social media page;
- Is a source of educational information (type of relief, specific formations, construction materials and techniques used, art style of painting, type of painting, mosaic technique, etc.);
- Offers workshops for tourists;
- Is located within the geographical area of Dobrogea, not on the coast or in the delta (as these are already established tourist areas).

Taking into account these criteria, the seven attractions were selected as the most representative for their category (physical–geographical, cultural–religious, and cultural–historical).

2.2. Selection of Participants

A qualitative research design was utilised to investigate the experience of tourists who visit Dobrogea. To achieve a comprehensive exploration of this topic, semi-structured interviews were conducted. The interview consisted of open-ended questions that aimed to elicit information on various aspects of the tourists' experiences, including their motivations for visiting Dobrogea, their level of satisfaction with the destination, and their willingness to recommend the destination to others. The authors determined that data saturation was achieved when the interviews no longer revealed new information.

The interviewers who conducted the study received comprehensive training to ensure optimal performance, including guideline reviews, sampling techniques, and logistical decision-making strategies. Their extensive experience in administering open-ended interviews further enhanced the study's credibility. The type of population in this study was an infinite population. The target respondents of this study were domestic tourists at least 16 years of age. A total of 718 tourists participated in the interviews. In this study, a purposive nonprobability sampling method was employed.

2.3. Analysis of Tourist Accessibility

The assessment of tourist accessibility is commonly carried out using travel time as a cost indicator, which is both widely used and easy to understand (Xia et al., 2018) [16]. To estimate travel time, we employed the traditional method of analysing origin–destination (OD) matrices using GIS. For this study, we used the NUTS2 administrative unit composed of provinces as the evaluation unit for travel to tourist destinations in Dobrogea. Data on the location of each tourist destination (the seven selected attractions) were available on the websites of each county in this province: Constanța and Tulcea.

We used Google Maps to geolocate each tourist attraction, ensuring that all addresses were accurately pinpointed on the basis of previously mentioned sources. The geolocation process was performed with ArcGIS Pro 2.5.0 software.

Geospatial data consisting of the road infrastructure, water bodies, and province administrative limits are available at <https://geo-spatial.org>, accessed on 1 April 2023.

To obtain the travel time to the seven tourist attractions located in Dobrogea province, we used an API service. Given the significant variability in tourist flows depending on the season, day of the week, and time of day, we selected two time intervals for weekdays and weekends: 10–12 a.m. and 4–6 p.m. The procedures involved (1) geolocating each tourist attraction on the basis of the address provided by the Google Maps service, and (2) creating catchment areas using the travel time add-in due to the large volume of data. After the creation of the first catchment area, the process was repeated identically for each tourist objective. The software used was ArcGIS Pro 2.5.0, and the mode of transportation considered was by car. For the first analysis, the selected days were Monday to Friday; for the second analysis, Saturday and Sunday were chosen. The direction of travel was towards the tourist destination.

The expansion of the internet has led to increasing utilisation of web-based mapping platforms, such as OpenStreetMap (OSM) and Google Maps, due to their open accessibility and the incorporation of established transport networks [29,30]. Furthermore, high-performance platforms, such as the Google Maps API, offer precise geographic information that can provide direct and accurate data on travel time, distance, and routes [31,32].

Using historical averages, the Google Maps API generates credible predictions that take into account traffic conditions and congestion losses through real-time location data [18]. Given the strong correlation between the time cost and distance, only the time cost was retained, with the average speed derived for further analysis.

The API method provides valuable information on the accessibility of tourist attractions.

2.4. Analysis of Tourist Satisfaction Based on Interviews

To analyse tourist satisfaction, we used the interview method, which included 718 interviews with tourists who visited the seven analysed attractions during the study period (June–September 2022). A word cloud was created on the basis of the responses of participants to the following question: “How do you feel when you arrive at this site?” A larger font size denotes a more frequent issue. This analysis revealed that tourists expressed attention, importance, and interest in what sensitised or satisfied them during their visits to these attractions (Figure 2).

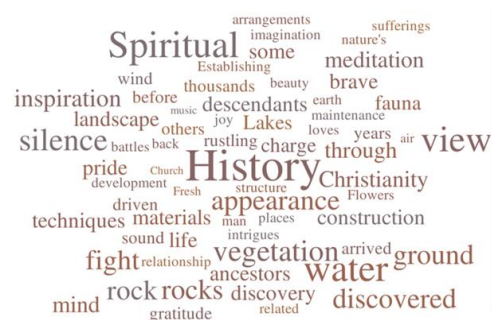


Figure 2. Word cloud on occurrences related to tourist satisfaction.

2.5. Satisfaction or the Relationship between Humans and the Place of Spiritual Fulfilment

The need for people, especially those who have succeeded culturally, socially, and economically, to reconnect with nature is increasing. With the evolution of the economy, technology, and communication through intermediaries, attention to the spiritual world is also growing. In Dobrogea, the locals are also starting to become part of this trend of interest in nature and spirituality, but this is still in its early stages. The numerous natural monuments, the relief created by the Dobrogei Gorges, the mountains with Hercynian origins, the small but uniquely beautiful lakes, the ruins of ancient citadels, the Roman triumph monument in Adamclisi, and the traces left by the first Christians who entered the actual territory of Romania and who are linked to the entire Christian evolution of the territory are still unknown attractions. Economic and social development can create the conditions for progress in knowledge.

The seven analysed attractions included in the study are part of the objectives where interventions have been made to promote knowledge. As Figure 3 suggests, there are many factors that can influence the satisfaction of tourists. They are related to both the appearance and the management of the attraction. Small arrangements have been made so that visitors can come in contact with what nature or history has offered to understand and gain more knowledge. There is a need for the modern world to return to nature and the local culture. This need can be initiated through technology, such as virtual tours (in the case of fortresses and museums) and photos posted on social media, but is ultimately completed only through physical travel and direct contact with the attraction.

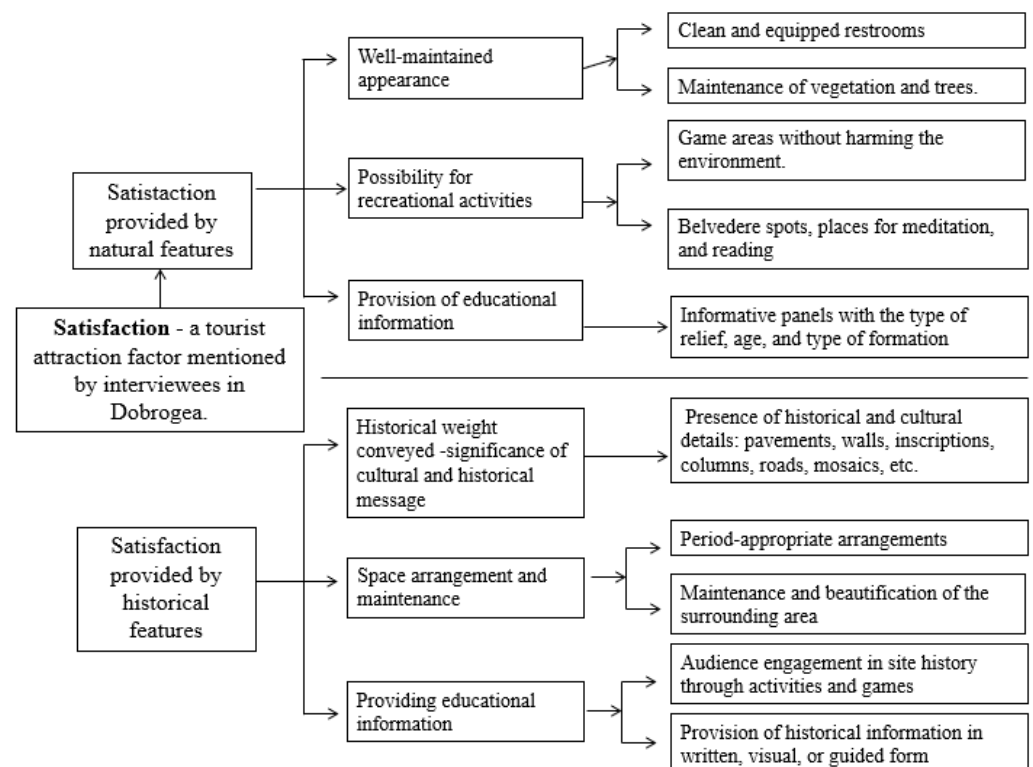


Figure 3. The structure of satisfaction according to the results of tourist interviews in Dobrogea.

Technology can assist in providing various information. It may be the most important way to create mental attraction for those eager for knowledge. However, satisfaction arises when direct contact occurs [33]. This is when a real, concrete perception is formed, with one's own senses according to person one's individual value system. In this way, reviews about certain attractions may differ [34].

After conducting interviews as part of our study at the seven attractions between June and September 2022, each interviewee was asked to share their motivations for visiting and

what aspects of the experience satisfied them. These data allowed us to develop a chart outlining the factors that provide or create satisfaction for the 718 individuals interviewed. It is essential to acknowledge that subjectivity plays a significant role as each person possesses unique values when consuming services and products. Tourism is a customer-oriented activity that aims to meet individual needs and preferences. As such, tourism must be adaptable to cater to the changing needs and preferences of different generations.

3. Results

The road and rail infrastructure plays a crucial role in influencing the tourism industry in Dobrogea. Previous studies suggested that destinations with good accessibility tend to be more attractive to tourists, which in turn can lead to an increase in tourist visitation and satisfaction levels [35,36]. According to the List of Historical Monuments compiled by the Romanian Ministry of Culture, there are a total of 1241 monuments of historical significance in the Dobrogea region, which includes the Constanta and Tulcea counties. In addition to these historical monuments, the region is also home to an impressive number of physical and geographical attractions, some of which also have historical significance. The region's rich history and diverse ethnic populations, including Turks, Tatars, Jews, Lipovans, Greeks, Italians, and Bulgarians, are potential drivers for the development of Dobrogea's tourism industry. Furthermore, the intangible cultural heritage of the region could also contribute to the promotion of local cultural tourism.

The accessibility was examined on the basis of the distance travelled by tourists from nearby areas (who were considered representative in terms of numerical frequency for these attractions) to reach their intended destination, measured in minutes during the week (Figure 4). This analysis was conducted from two time-based perspectives: weekdays and weekends (Figure 5).

The road infrastructure in the Dobrogea region comprises national (DN), county (DJ), and local roads. The quality of the asphalt paving and road markings in the first two categories, in line with Romania's road policy for urban and nonurban speed limits, enables tourists to calculate the time needed to reach their desired attractions. The quality of local roads is less favourable for travelling in certain parts of the Dobrogea region, some of them lacking asphalt.

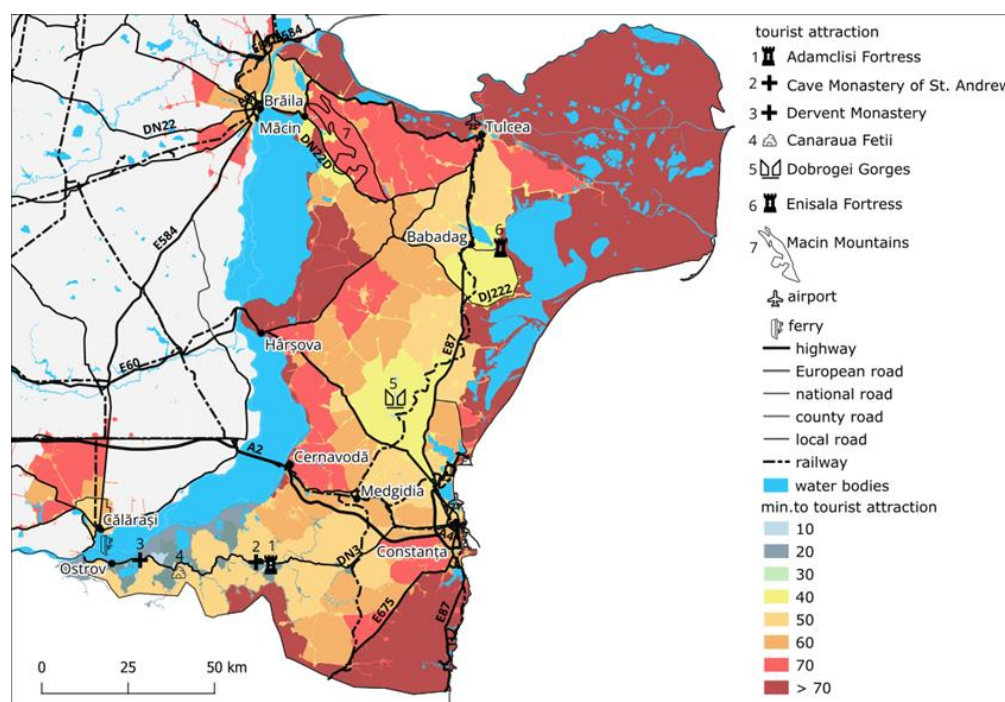


Figure 4. Tourist accessibility in Dobrogea during the week (Monday–Friday).

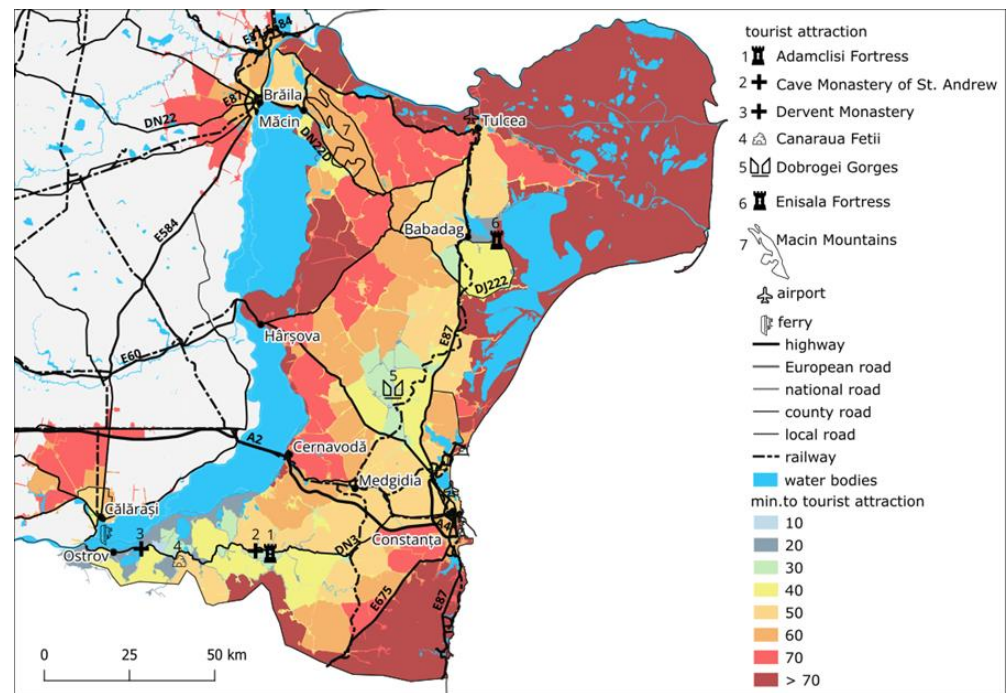


Figure 5. Tourist accessibility in Dobrogea during the weekends (Saturday–Sunday).

Considering the accessibility, we supplemented the analysis in this study with the tourists' satisfaction towards these attractions. Therefore, distance or accessibility remained secondary, as many of those interested in a particular attraction are less influenced by the distance, i.e., the time spent on the road. This can be seen from the interviews and the analysis carried out through the word cloud.

Access to each of these attractions is relatively easy, as the most commonly travelled distances for residents of Dobrogea and neighbouring urban areas (such as Braila to the northwest and Calarasi to the southwest) can be covered in 30–60 min. It is worth mentioning that travel times may exceed this average for visitors from more distant cities, such as Constanta in the south-eastern coastal area or in the deltaic area, where the route is a mixed water–land route and requires more time.

3.1. Tourist Accessibility to and Satisfaction with Physical–Geographical Attractions (Macin Mountains, Dobrogei Gorges, and Canaraua Fetii)

On average, tourists need to spend more time travelling to visit the Macin Mountains compared to other destinations, but this does not seem to discourage them from going. Tourist satisfaction with this attraction was high, as reported in interviews. The interest in visiting the Macin Mountains is an example of its appeal as a tourist destination. The management of this geographic area can provide tourists with information through various modern means that are easily accessible. In this regard, technology is understood and applied in a way that enhances the attraction of this area. As soon as tourists come into contact with the physical space of the Macin Mountains, their satisfaction starts to emerge. Higher tourist satisfaction is related to higher loyalty of tourists to attractions [37]. The relatively low height of the mountains (with the highest peak being Tutuiatu at 467 m), hardness of the rocks (greenschist), the marked trails, the multitude of lakes (Emerald Lake or Iacobdeal Lake), the vegetation, the landscape, and the perspective of the Dobrogea region are all attractions that tourists want to see multiple times. At least one of these attractions becomes their “favourite place” or a location where they feel an integral part of it (Figure 6). This moment of satisfaction is what the tourist ultimately obtains.

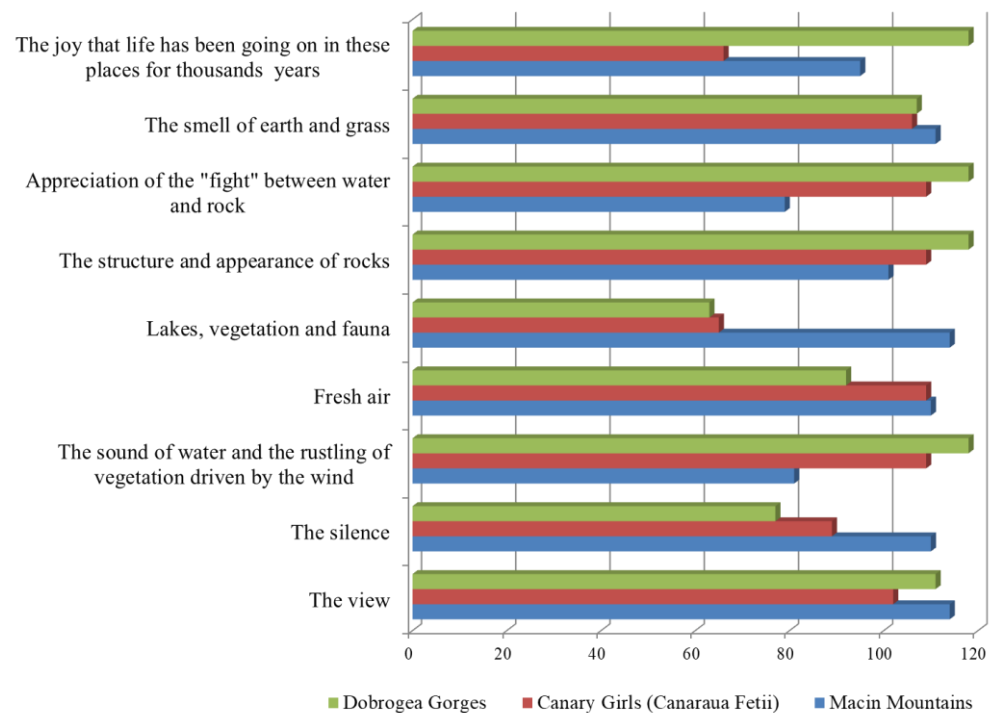


Figure 6. Tourist satisfaction mentioned in tourist interviews for physical–geographical attractions.

The Dobrogei Gorges have the advantage of accessibility. This nature reserve is located just 40 km away from Constanta (the largest city in Dobrogea) (Figure 5). Most of the tourists who visit this attraction come from neighbouring towns and villages, as well as those whose route is oriented towards the coastal area. This tourist attraction offers visitors the possibility to visualise a specific landscape created by limestone atolls, as well as traces of ancient habitation.

The caves where traces of ancient settlements were discovered, such as the Gura Dobrogei and Adam’s Cave, are highly attractive due to their historical significance. In these caves, five carved stones were discovered, believed to be part of an altar dedicated to the god Mithras, also known as the God of Light [38]. In addition, a molar dating back to 100,000 years ago, belonging to *Homo sapiens* fossils, was discovered in the area [38]. These elements increase the attractiveness of this tourist destination. The availability of information provided by visitors on various platforms or bloggers who have a passion for the Dobrogea region is also important in promoting this attraction. Once visited, tourists can experience a sense of satisfaction. The locals are highly involved and consider that this area has a strong spiritual significance.

Moreover, dedicated areas for climbing and relaxation have been established. The development of these designated spaces leads to an increase in tourist satisfaction for various age groups and leisure preferences. Mostly young people are attracted to these zones.

Among the physical–geographic objectives that attract many of the inhabitants from the southern area of Dobrogea province (cities such as Constanta, Medgidia, and Cernavoda, as well as nearby villages with access to DN3), located 6 km west of Baneasa commune, the Canaraua Fetii objective stands out. While it may be considered a local attraction, the satisfaction of those who have visited it is well documented in interviews. The study included 97 participants (Figure 6), many of whom visited the site for multiple days, including weekdays and weekends. This recurring presence is an indication of their satisfaction with the experience.

For this particular category of objectives, the study included a total of 341 participants. As previously mentioned, these participants were of varying ages (Figure 7a) and had different occupations (Figure 7b). The age range of primary tourism consumers provides valuable information and clues regarding the necessary infrastructure in these areas. This

may include facilities such as climbing areas, viewpoints, study zones, information boards, or themed trails. Overall, 63% of the study participants were college graduates, 35% had finished high school, and 2% had only completed middle school. All of them were residents of Dobrogea province.

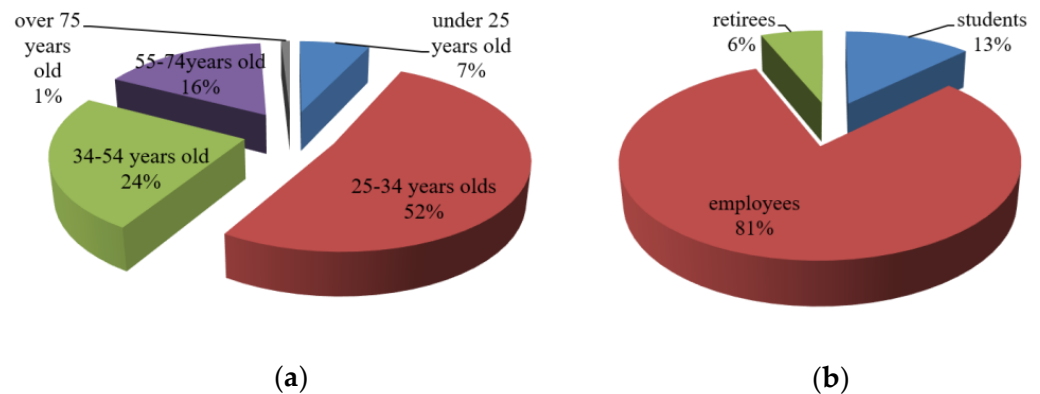


Figure 7. (a) Age structure of the participants in the study for physical–geographic objectives. (b) Occupation structure of the participants in the study for physical–geographic objectives.

3.2. Tourist Accessibility to and Satisfaction with Cultural–Religious Sites (Derwent Monastery and St. Andrew’s Monastery)

Dobrogea, from a religious standpoint, is the region where the first traces of Christians from this area were recorded [39]. There is also a Museum Complex with the relics of the first Christian martyrs in Dobrogea located in Niculitel, and their remains were transferred to the Cocos Monastery [40]. The first religious message conveyed and the two objectives selected for the study attract a significant number of tourists and pilgrims.

The Monastery and Cave Monastery of St. Andrew are easily accessible, located near the major DN3 road, making it convenient for tourists to reach. The route from DN3 to the monastic complex offers a scenic and peaceful atmosphere for visitors to enjoy the natural surroundings and immerse themselves in the local spirituality. The Migelet fountain and St. Serafim de Sarov Hermitage are two other popular tourist attractions in the area. One of the advantages of visiting this monastic complex is the availability of on-site accommodation. This adds an extra appeal for tourists who wish to extend their stay and fully experience the spiritual atmosphere. The average length of stay mentioned is around two nights. All of this makes the Monastery and Cave Monastery of St. Andrew a desirable destination for visitors seeking a peaceful and spiritually enriching experience.

The Derwent Monastery’s location along the Danube River provides a unique advantage for visitors seeking a peaceful and spiritually enriching experience. The accessibility of the monastery is convenient for those living in neighbouring villages, as well as for tourists and Christians coming from villages in Bulgaria. To reach the monastery from the western area, visitors can either take a ferry across the Danube, which takes around 30–40 min, or travel by land, which takes at least 60–70 min. Both of these routes are frequently used and provide beautiful views of the surrounding area.

One of the most important factors of tourists’ satisfaction is cultural and historical heritage [41]. According to interviews with tourists, the Derwent Monastery provides a sense of tranquillity and natural beauty that is highly valued by tourists. The religious aspect and message of monastic life and activity at the monastery also contribute to the overall satisfaction of visitors (Figure 8). In addition, the Tamadurii Spring, known for its psychotherapeutic effect, is another popular attraction that draws a significant number of tourists, curious individuals, and religious believers.

The Derwent Monastery is an ideal destination for those seeking a unique and spiritually enriching experience, combining religious history and natural beauty in a peaceful setting along the Danube River.

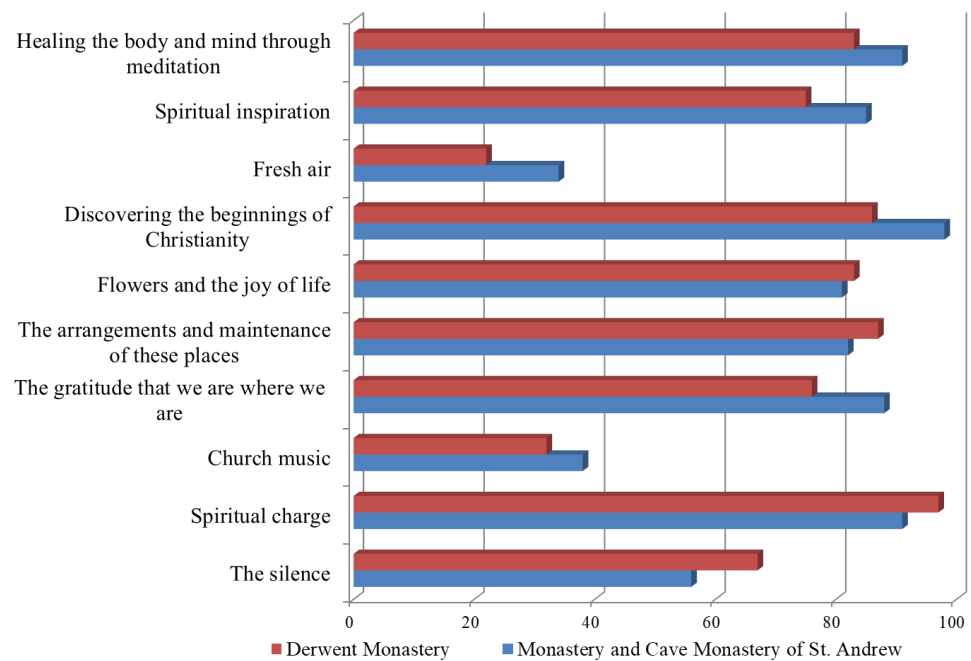


Figure 8. Tourist satisfaction mentioned in tourist interviews for religious cultural attractions.

Similarly, we aimed to identify the age groups (Figure 9a) and occupations (Figure 9b) of tourists to better comprehend their reasons for visiting these destinations and to determine the information that tourism and hospitality organisers could offer to support their interests. For this category of objectives, a total of 192 participants agreed to participate in interviews, of which 14 resided outside the Dobrogea region. In terms of education, 57% of them had a higher education degree, 40% had completed high school, and 3% had only completed primary school.

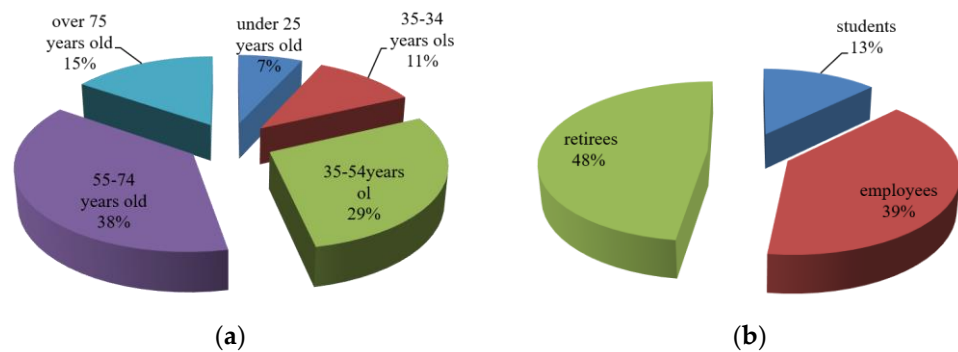


Figure 9. (a) Age structure of the participants in the study for cultural–religious objectives. (b) Occupation structure of the participants in the study for cultural–religious objectives.

3.3. Tourist Accessibility to and Satisfaction with Cultural–Historic Attractions (Adamclisi Fortress and Enisala Fortress)

The history of the territory between the Danube and the Black Sea is rich in events. Material remains, according to the List of Historical Monuments made by the Romanian Ministry of Culture [42], date back to the Paleolithic era, followed by material traces from all historical epochs. The Roman era brought an impressive number of monuments, some of which can still be seen today (remains of walls, buildings or columns, architraves, etc., whose dating is specific to the Roman period, the first–third centuries AD). Civitas Tropaensium (Fortress of Trophy) is easily accessible for residents of nearby villages, located only 10–40 min away. Given this facility, the most frequent type of tourism encountered here (analysed only on the basis of accessibility) is educational tourism. Schools (mostly middle

schools) have a cultural program at Civitas Tropaensium (Fortress of Trophy). For tourists coming from different localities in central or northern Dobrogea or from other localities in Romania, the distances are greater, and the time taken to reach the objective is longer, exceeding 70 min. The satisfaction analysis for this objective is based on appreciation mainly for the work carried out by those who have arranged the Adamclisi Archaeological Museum, located 4 min away from Civitas Tropaensium (Fortress of Trophy). Moreover, 6 min to the north of the fortress is Tropaeum Traiani, a restored memorial that commemorates the victory in battle in the first century AD by the ancient Roman Emperor Traian. The satisfaction offered by national pride in that monuments are so well highlighted creates the main idea for analysing the degree of satisfaction (Figure 10).

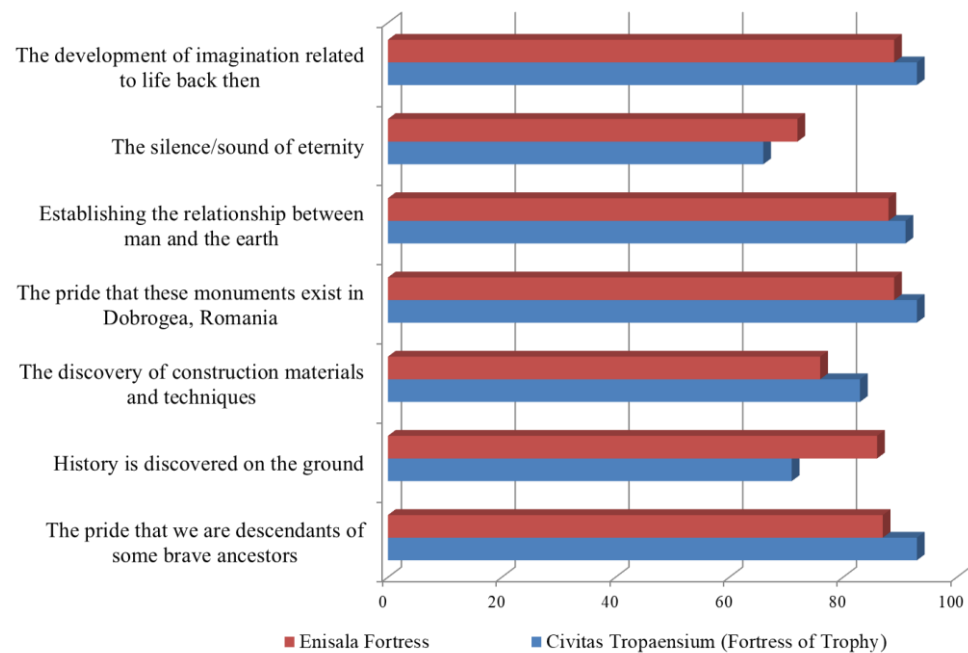


Figure 10. Tourist satisfaction mentioned in tourist interviews for cultural–historical attractions.

The medieval period left some important marks on the territory of Dobrogea. In the east part of Babadag, on the European road E87, a separate county road, 223A, leads to the Enisala Fortress, built during the reign of Mircea cel Batran, ruler of Wallachia [42,43]. The quality of this infrastructure provides good accessibility for tourists. This has a positive and significant effect on tourist satisfaction [44].

The presence of Enisala Fortress in a geographically favourable area for tourism (only 10 km from the town of Babadag) allows tourists to reach it within 12–15 min. The neighbouring villages of Sarichioi, Visterna, and Zebil are also located within a similar distance, which can be reached in up to 40 min. Those living in the westernmost areas (Harsova and its surroundings) or the deltaic region may need to travel for more than 60–70 min, which can be challenging, especially when travelling by water. The level of satisfaction among tourists visiting the Enisala Fortress is similar to that recorded for Adamclisi Fortress, reflecting a sense of pride for a historical period in which Dobrogea was under the rule of the Romanian voivode Mircea cel Batran. This type of satisfaction is enhanced, according to the interviews, by the calmness (tranquillity) offered by the vast areas of vegetation and water bodies; most tourists consider Enisala to be a perfect mix of knowledge and relaxation. This atmosphere is also enhanced by the advantage of visiting the Peasant Household Museum in Enisala, which serves as an introduction to the atmosphere that the fortress provides (in case of prior visits) or complements the unseen details of the fortress over time (when visited after the fortress). Satisfaction is expressed through enchantment, pride, relaxation, and gaining knowledge about the details of Dobrogea and Romania’s history (Figure 10).

Cultural and historical objectives can contribute to a better understanding of local history for younger generations. Educational tourism can provide a means for students to directly interact with local history. The necessary facilities for this type of tourism are special, aiming to present historical events in an accurate, scientific, and chronological manner. These observations are based on the results of field interviews, which revealed that the majority of visitors, as shown in Figure 11a, are young students or employed individuals of a relatively young age, as illustrated in Figure 11b. Overall, 71% of those who visited the cultural historical objectives had a college degree, 26% were high school graduates, and 3% had completed primary school. It is worth mentioning that three of them resided outside the Dobrogea province.

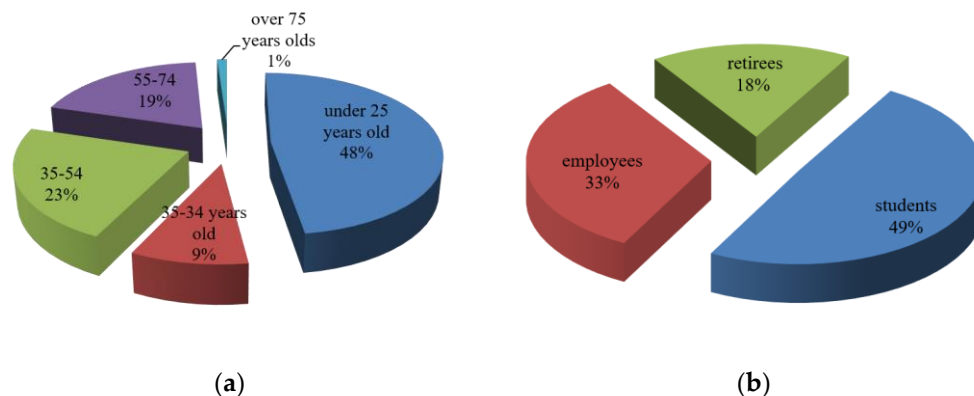


Figure 11. (a) Age structure of the participants in the study for cultural–historical objectives. (b) Occupation structure of the participants in the study for cultural–historical objectives.

4. Discussion

When examining the seven tourist destinations in Dobrogea from the perspectives of accessibility and tourist satisfaction, a range of similarities and differences emerge with regard to tourist consumption. Attractions that offer higher levels of satisfaction to visitors tend to be less influenced by accessibility constraints. However, when it comes to reaching these sites, especially for first-time visitors, accessibility becomes a critical factor in determining whether or not it is worthwhile to visit. In this regard, technology has proven to be a valuable tool in providing information about the accessibility of tourist attractions, as well as other relevant details. It is important to note that such information is inherently subjective, as each tourist's experience is unique and may be influenced by a range of factors. Tourists often post reviews and images that reflect their impressions and perceptions of a particular attraction, both positive and negative. However, studies have shown that destination loyalty is more influenced by tourist satisfaction than by the destination's image [45]. To develop informed opinions, it is imperative for tourists to physically visit the tourist attraction, as relying solely on second-hand information may not provide a complete understanding of the attraction's unique features. Moreover, the level of satisfaction experienced by tourists who visit the various tourist attractions in Dobrogea tends to differ significantly based on the type of attraction.

Out of the 718 tourists who participated in this study, 701 were residents of the Dobrogea region, while only 17 individuals came from outside of the province. This particular finding led us to examine the accessibility and tourist satisfaction in this specific geographical area.

4.1. Dobrogean Tourism

Despite the presence of numerous historical monuments and natural attractions, the predominance of two major tourist draws, the Danube Delta and the Black Sea Coast, has overshadowed other forms of tourism in the Dobrogea region. The economic development of both urban and rural areas has focused mainly on the coastal region and the western areas near the Danube (Cernavoda and Harsova), while the central region has largely

retained its rural character without generating significant tourist interest. The construction of the Cernavoda–Constanta highway has further contributed to this trend by facilitating direct travel to the coastal zone.

The underdeveloped state of the road network, especially the county roads, has been identified as a major contributing factor to the low tourism rates in the “inner zone” of Dobrogea. The poor quality of these roads has significantly impacted the willingness of tourists to travel to the various attractions in this region, including the seven destinations analysed in this study. As a result, the potential economic benefits of tourism in the area have not been fully realised.

The rehabilitation of roads has facilitated travel in Dobrogea, aided by social media’s private promotion of Dobrogean attractions. The most important step in the development of Dobrogean cultural and heritage tourism was the rehabilitation of important monuments, starting with those religious monuments (beginning with the construction of the Niculitel Early Christian Complex), followed by the important monasteries throughout Dobrogea, and including other cultural–historical monuments. Tropeum Traiani is perhaps the best-rehabilitated and organised site for tourism and education. It was followed by Enisala Fortress (included in the present study), Histria Fortress (a fortress dating back to the Hellenistic period), which is in the process of rehabilitation, Harsova Fortress (Roman Castrum Carsium), and Capidava Fortress. Many of the Dobrogean fortresses have not yet been brought to the stage where they can be visited and valued for tourism or educational purposes.

Building on the study’s objective of evaluating the accessibility of tourist attractions located in the Dobrogea geographic area, the interviews provided valuable insights. They are a major draw for the local population, regardless of the road’s general condition. For the majority of study participants, road rehabilitation is seen as a bonus and a facilitator in attracting tourists from other regions. However, accessibility was not viewed as an obstacle to visiting and enjoying these attractions, as evidenced by their overall tourist satisfaction.

The “word cloud” method was intended to better understand the mindset of those who visit these tourist attractions, especially to provide suggestions for those who want to develop businesses focused on tourism. Understanding the requirements and desires (to obtain satisfaction in tourist consumption) of those who want to become tourism consumers in Dobrogea is necessary.

The accessibility maps confirm the information obtained during the interviews; that is, there is no significant difference between weekdays and weekends in terms of visit to these tourist attractions. They are attractive to locals during any day of the week.

4.2. Average Length of Stay—A Tourism Attractiveness Indicator

For the local economy, the length of tourists’ stay is quite important. In the geographical areas where the seven attractions of the study are located, there are accommodation structures, located in the administrative localities to which they belong. Most of them are tourist pensions or agro-tourist pensions and villas. There are seven rooms per accommodation structure on average. The occupancy rate of these structures during the analysed months, June–September 2022, was 87% (as reported by the owners of pensions located in the geographic area where the seven tourist attractions analysed in this study are located). The purpose mentioned by the tourists who stayed was vacation/holiday. The average length of stay (the number of nights stayed/tourist) was 1.4.

Another option for accommodation that was examined was that provided by monastery lodgings. Both the Dervent Monastery and the St. Andrew Monastery have such lodgings available. When evaluating overnight stays in monastery lodgings, it is important to note a particular feature; one night is offered for free to those who have come to participate in a specific religious service, such as the Assumption of the Virgin Mary on 15 August. If we consider this, the average number of overnight stays in monastery lodgings increases to 2.7 nights. Another appealing factor for tourists who consider these lodging options is the cost, which is significantly lower than other alternatives. Although there is no fixed tariff, the price is left to the discretion of the tourist.

Prolonging the duration of a tourist's stay lays the foundation for local development and stimulates the growth of a tourist region. Consequently, this leads to a rise in new opportunities for the residents of Dobrogean localities, in addition to other activities [46]. Local agriculture can be developed to ensure a sustainable food supply for tourists, and supplementary services for tourists can be established. Such efforts collectively direct tourism activities towards sustainable tourism [47–49].

5. Conclusions

Each geographic area provides an array of essential tourist resources. To access these resources, primary information is necessary regarding the nature of attraction and duration of stay. Once acquired, the subsequent steps involve exploration, analysis, and assessment of these resources, encompassing both accessibility and tourist satisfaction.

Cartographic representations provide precise information on the distances and travel time required to reach desired tourist destinations. The primary aim is to identify regions within Dobrogea and its neighbouring urban localities that offer easy accessibility with an average travel time of less than 60 min. In this context, all seven identified tourist attractions in the region predominantly fall into this category, thus satisfying the set criteria. These considered tourist attractions belong to three different categories: physical–geographical (Canaraua Fetii, Macinului Mountains, and Dobrogei Gorges), cultural–religious (Monastery of St. Andrew and Dervent Monastery), and cultural–historical (Enisala Fortress and Adamclisi Fortress).

The majority of tourist attractions are located in the southern area of Dobrogea. This type of attraction is favourable for a journey that allows an increased number of overnight stays, as they belong to the physical–geographical, religious, and historical categories. This concentration of attractions can lead, over time, to finding solutions for creating tourist zones. Similarly, the northern part where the other three attractions are located can be developed, evaluating accessibility, i.e., the relatively average time required for travel between the attractions. Creating tourist circuits can be the solution for maximising the value of tourism and favouring the local tourism economy.

The primary routes are provided by DN3 and E87, which represent the main road arteries, favouring the reduction in travel time for tourists to the tourist attractions mentioned in this study. By identifying areas with reduced accessibility, decision-makers can target infrastructure development and transport improvement, reducing the negative impact of tourism on the environment and local communities. Calculating accessibility to different tourist attractions is crucial for promoting sustainable tourism. It can also contribute to improving the tourist experience and travel comfort.

The assessment of tourist satisfaction involved the review of not only the subjectivity provided by the interviewed tourists, but also the repeatability of certain components' qualities or the creation of certain emotional states, which can create a picture of the tourist importance that these tourist objectives have.

Dobrogea is abundant with natural beauty and cultural and historical heritage. To ensure the quality of a tourist destination, it is crucial to measure and assess its carrying capacity, as well as implement effective visitor management strategies. None of the tourist objectives considered in this study require an entrance fee, and the protective measures for the physical–geographic objectives are limited to a few informational panels. The authors consider that this is not sufficient to protect the most important cultural and historical heritage in Dobrogea. The lack of informational panels and necessary facilities for visiting, such as parking spaces, represents sources of tourist dissatisfaction.

The findings of this research suggest that effective visitor management in Dobrogea should be initiated at the highest level of management, with the Ministry of Tourism taking a leading role. The Ministry needs to establish appropriate tourist strategies and educate visitors about the destination, to discourage unauthorised behaviour and control tourist traffic in popular destinations. A particular concern is the Dobrogei Gorges Nature Reserve, where ecotourism development is essential for sustainable tourism. The lack of development in infrastructure for tourists within the nature reserve, while contributing

to sustainable development, requires more rigorous visitor and waste management for all stakeholders in the tourism industry, including the local population.

This study provides a reliable foundation for enhancing destination management and quality in Dobrogea, specifically by improving visitor management and natural and cultural resource management. To further investigate the relationship between tourist satisfaction and spending, future research should consider analysing tourist spending patterns. To obtain a comprehensive understanding of a destination, it is important to explore the attitudes of local residents and business owners, which was not within the scope of this study.

The proposed model provides a valuable tool for identifying the critical components of the tourist offer that require improvement, as well as the strengths and potential new tourism products. To further enhance the model's effectiveness, key indicators of destination management quality could be identified and measured, along with the impacts of tourist satisfaction and their likelihood of revisiting the destination. By incorporating these elements, the model can be expanded and refined to better support destination management and ensure continued growth and success in the tourism industry.

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