

# An Analysis of Tourists' Use and Assessment of Tourist Infrastructure in the Ivano-Frankivsk and Transcarpathian Regions of Ukraine

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## Abstract

The main tasks of the study were to analyse and assess the state of infrastructure near tourist facilities based on the results of a survey, as well as identify problems and prospects of infrastructure development. Information was collected regarding the time spent in the settlements of the Ivano-Frankivsk and Transcarpathian regions when visiting tourist facilities, how to get there, which food and accommodation establishments to choose, how much one is willing to spend, additional services, leisure facilities, etc. Most of the tourists rated the recreational infrastructure as "excellent" and "good". The respondents expressed several wishes: the improvement of the infrastructure, the beautification of the territory, information support, increase in the number and quality of public restrooms, and the revitalisation of cultural and entertainment events.

## Keywords

tourism, survey, consumers, evaluation, infrastructure objects

## Introduction

The infrastructure of tourism ensures the activity and interaction of the subjects of the tourism sphere, regulating material, economic, and informational flows. Thus, the state of the infrastructure and its components determine the level of tourism development. Tourism infrastructure is designed to meet the needs of tourists and is one of the main factors in the rational use of tourism facilities (Mel'nychenko & Shvedun, 2017). In the Law of Ukraine "On Tourism, tourist infrastructure is defined as a set of certain subjects of tourist activity (hotels, tourist complexes, camping sites, motels, boarding houses, food, and transport enterprises, cultural and sports institutions, etc.), which provide reception, service, and transportation of tourists (Zakon Ukrayiny "Pro turyzm", 2015). Therefore, the main components of the tourist infrastructure include accommodation, food, transport, additional services, and communications, all of which participate in the provision of tourist services.

According to the rating of the World Tourism Organisation (Ofitsiynyy sayt Vsesvitn'oyi turysts'koyi orhanizatsiyi 2021), Ukraine ranked 8<sup>th</sup> in the world in terms of the number of tourist visits in 2008. More than 20 million tourists (25.4 million) visit the country every year. The armed annexation of Crimea in 2014 led to the loss of a third of Ukraine's natural and recreational resources, and thus a part of foreign tourists (Doan & Kiptenko, 2017; Ivanov et al., 2020; Lozynskyy & Kushniruk, 2020; Sass, 2020; Tomczewska-Popowycz & Quirini-Popławski, 2021; Quirini-Popławski et al., 2022). The decrease in the number of tourists (to 4 million) was influenced by COVID-19. In total, 4.2 million foreigners crossed the border in 2021 (Illiashenko et al., 2021; Rutynskyy & Kushniruk, 2020). The COVID-19 pandemic gave an impetus to the development of tourism in Ukraine and the modernisation of the existing tourist infrastructure within the framework of special state-targeted development programmes (Sherstiuk et al., 2021; Hamkalo & Quirini-Popławski, 2018; Hamkalo et al., 2017; Hamkalo, 2015; Kiptenko et al., 2017; Kudła & Quirini-Popławski, 2015; Kushniruk & Kosyk, 2017). In many scientific works, the principles of the formation and peculiarities of the development of tourist infrastructure are disclosed (Bets & Brunets, 2012; Boiko, 2016; Brunets, 2010; Kovtunyk, 2014; Kornev, 2011; Kosharnyi, 2016; Nykytiuk & Asiutina, 2014; Trehubov, 2013; Cooper et al., 2008). The significance of the influence of infrastructure on the development of tourism has been studied (Kutsenko & Reshetniak, 2011; Dapkus & Dapkute, 2015; Seetanah et al., 2011).

Because tourism is a complex field connected with many other industries, one can talk about the necessity of strategic management of the tourism infrastructure development. The majority of scientists substantiated the need to implement a tourism development strategy in Ukraine, taking into account regional aspects (Savitska & Savitska, 2013; Panasiuk, 2007; Butorina, 2016; Kuzyshyn, 2011; Petrova et al., 2018; Horina et al., 2019; Arkhypova et al., 2022; Druzhinina & Zalunina, 2015). Considering the competitiveness of the elements of the tourist infrastructure of Ukraine in comparison with individual EU countries, some papers indicate the obsolescence of certain types of infrastructure and the need for innovative implementations at service facilities (Lendiel, 2019; Koshova, 2021; Jovanović & Ilić, 2016).

Transportation is one of the elements that is considered the most important and necessary for the development of the tourist infrastructure of the state and is determined in the works by the number of highways, railways waterways, and airports (Savchenko, 2013). An extremely important indicator in rural areas is the presence of entrances with hard coverage to rural settlements (Kravchynskyy et al., 2021a; Kravchynskyy et al., 2021b). Only the Ivano-Frankivsk and Transcarpathian regions have 100% number of paved entrances to rural settlements (Derzhavna sluzhba avtomobil'nykh dorih Ukrayiny, 2013).

Tourist infrastructure includes accommodation establishments, hotels, motels, camping sites, boarding houses, etc., which are specially designed for the reception and accommodation of tourists, and provide different levels of service and infrastructural support according to different types of tourism. The activities of organisations that provide tourist accommodation services are inextricably related to public catering – canteens, restaurants of all kinds, cafes, bars, fast food restaurants, etc. The quality of service provided by employees is very important, and the need for certification to improve the level of infrastructure is also very important (Kis et al., 2020). Additional infrastructure includes entertainment facilities, trade and household services, tourist resources, medical care, telecommunications, utility systems, emergency medical care facilities, Internet access, etc. The level of technical equipment of these systems and their sufficiency depends on the uninterrupted operation of tourism industry enterprises (Orlova, 2014). The presence of tourist information centres also plays a big role (Muzychenko-Kozlovska, 2013). The task of the tourist infrastructure is to provide services to the local population and tourists. In this regard, its development contributes to the tourist development of the territory, improves the conditions and quality of life of the population, and increases the attractiveness of the territory for guests and tourists. There is a need to create new jobs for the local population living on its territory (Sokolova, 2010; Matiyiv et al., 2022; Klymchuk et al., 2022).

The development of tourism infrastructure in the tourist regions of Ukraine should become a source of the replenishment of state and local budgets, a means of publicly available full-fledged recreation and health improvement (Butorina, 2016; Orlova, 2014). An analysis of the modern theoretical and methodological justification of the management of the tourist infrastructure of the region and the problems of the development of the tourism infrastructure, including the assessment of the

ecological state, was carried out in many works (Melnychuk et al., 2022; Boshota & Papp, 2017, Kosharnyi, 2016, Pokolodna & Pysareva, 2019). The development of the tourism sphere has now become especially relevant under the conditions of the unfolding of a full-scale war in Ukraine and is being investigated in some scientific and practical works, in particular the analysis of the ecological and economic consequences of the war in Ukraine (Sak et al., 2022). After the end of the war, military-patriotic tourism can develop in Ukraine (Barvinok, 2022).

The analysis of tourism potential in scientific works is based on the calculation of statistical indicators, i.e. quantitative indicators are taken into account. However, the infrastructure of tourism as an element of the economy has a high level of wear and tear and may not meet the requirements of consumers of tourist services, so the opinion of tourists regarding the quality of services is important. It is also possible to highlight the need and importance of systematic studies of the development of tourist infrastructure, especially in the future after the end of the war.

As part of the project “Carpathian Cultural Route”, which is implemented by the public organisation “Association of Economic Development of the Ivano-Frankivsk Region (AERIF)” in partnership with the Center for the Development of Small and Medium Businesses of the Maramures County (Romania) and the Ivano-Frankivsk National Technical University of Oil and Gas within the framework of Cross-border cooperation programs of the European Neighbourhood Instrument Hungary-Slovakia-Romania-Ukraine 2014–2020. Selected regions in the Ivano-Frankivsk and Transcarpathian regions, within which the Carpathian Cultural Route will be designed.

**The purpose of the study** is to analyse tourists' use and assessment of the state of the tourist infrastructure in the Ivano-Frankivsk and Transcarpathian regions.

**The subject of the study** involves the system of tourist services provided to tourists visiting tourist facilities in the Ivano-Frankivsk and Transcarpathian regions, and the state of use of the infrastructure of the researched region in tourism.

**The object of the study** involves the objects of the tourist infrastructure of the territories of the historical and cultural objects of the Ivano-Frankivsk and Transcarpathian regions of Ukraine.

**The main tasks of the study involve:**

- conducting a survey among tourists according to developed questionnaires;
- analysing the results of the survey and determining the level of their satisfaction with the tourist infrastructure based on their evaluation;
- determining the problems and prospects of the development of the studied territories in the context of the formation of the Carpathian cultural path.

The scientific novelty of the research lies in the fact that by analysing the results of sociological research with the help of a questionnaire, trends, problems, and prospects for the growth of tourist flows of historical and cultural heritage in the Ivano-Frankivsk and Zakarpattia regions were revealed for the first time.

## Materials and methods

The methodology of studying cultural and historical objects is based on the method of obtaining information by interviewing tourists in the locations of historical and cultural objects (Wu et al., 2017; Yavorska et al., 2018). A questionnaire was used, which included questions of both closed and open type, with the possibility of obtaining wishes from the respondents. A sociological research questionnaire should exclude the subjective factor and the imposition of one's opinion on the respondent as much as possible. That is why an accumulated approach and the creation of a methodology was proposed, which consists of both numerical (statistical) indicators and the results of surveys of tourists' opinions as well as subjective evaluation characteristics. The questionnaires were pre-tested at a meeting of the project's expert group, at the tourism department of our university, which conducted the survey, and then used for interviews.

This approach made it possible to analyse the problem from the point of view of the consumer of tourist services within the cultural heritage places (Nesterchuk et al., 2021; Simkiv et al., 2021). The interpretation of the results of the questionnaire made it possible to select the most attractive tourist objects of the researched region to substantiate their inclusion in the tourist route “Carpathian Cultural Route”. The research is the first step in the project implementation

methodology and its results will be used in the formation of new initiatives launched within the project, aimed at creating and promoting the “Carpathian Cultural Route” on the market of tourist services, as well as refining and further filling the “Carpathian Cultural Route” mobile application (<https://qr.page/g/2W7zfpClbdU>, for Android). The questionnaire is one of the most popular methods of quantitative sociological research (Ievdokymov et al., 2018; Prykhodko et al., 2023). As a result of the development of the digitalisation of society, online survey appeared (Krool et al., 2021).

This method is cheaper than a conventional survey, but the accuracy of the obtained data is lower due to the complexity of the representative sample (Sardak et al., 2020). The authors chose a face-to-face interview. The survey was conducted from October to December 2021. Restrictions imposed by the situation with the COVID-19 pandemic have created difficulties for everyone’s surveys (Zelinska et al., 2021). 2.5% of the population must be surveyed to receive objective information (Arkhypova et al., 2023). Surveys of tourists were conducted on the territory of historical and cultural objects. The total number of cultural and historical monuments from protection status, including local, does not exceed 500, taking into account the data provided by the Department of Culture of the Ivano-Frankivska and Zakarpattia regional state administration. A database was created of 140 objects that were the most visited and located along the transversal border highways Lviv-Rohatyn-Ivano-Frankivsk-Yaremche-Rakhiv-Solotvyno and Lviv-Halych-Ivano-Frankivsk-Kolomyia-Kosiv-Verkhovyna (supervisory management of historical and cultural heritage institutions of various protection statuses and significance in tourist activity). According to the recommendations of the Expert Council of the Carpathian Cultural Route project, a sufficient volume of questionnaires is 100 units. The survey was conducted in November–December 2021. 264 questionnaires were filled out in the Ivano-Frankivsk and Transcarpathian regions of Ukraine.

The distribution of the sample by regions of the survey in Ukraine took place by the number of objects of cultural and historical heritage, as well as the power of the general tourist flow (according to the results of the sociological survey of 2018). 314 people took part in the questionnaire survey. The sample on which the study was conducted included persons representing the adult population (over 18 years old) by gender, age, and education (Table 1).

**Table 1.** A random survey sample

<b>Gender (%)</b>	men	53.8
	women	46.2
<b>Age (years)</b>	18–29	22.7
	30–39	31.1
	40–49	24.6
	50–59	17
	60–69	1.9
	did not give an answer	2.7
<b>Education (%)</b>	higher	76.1
	secondary	18.2
	not indicated	5.7
<b>Marital status (%)</b>	married	61
	unmarried	28
	other	2.3
	not specified	8.7
<b>Activity (%)</b>	hired workers	37.9
	entrepreneurs	30.9
	housewife	8.6
	students	7.1
	temporarily not working	6.7
	pensioners	4.1
	other	4.8

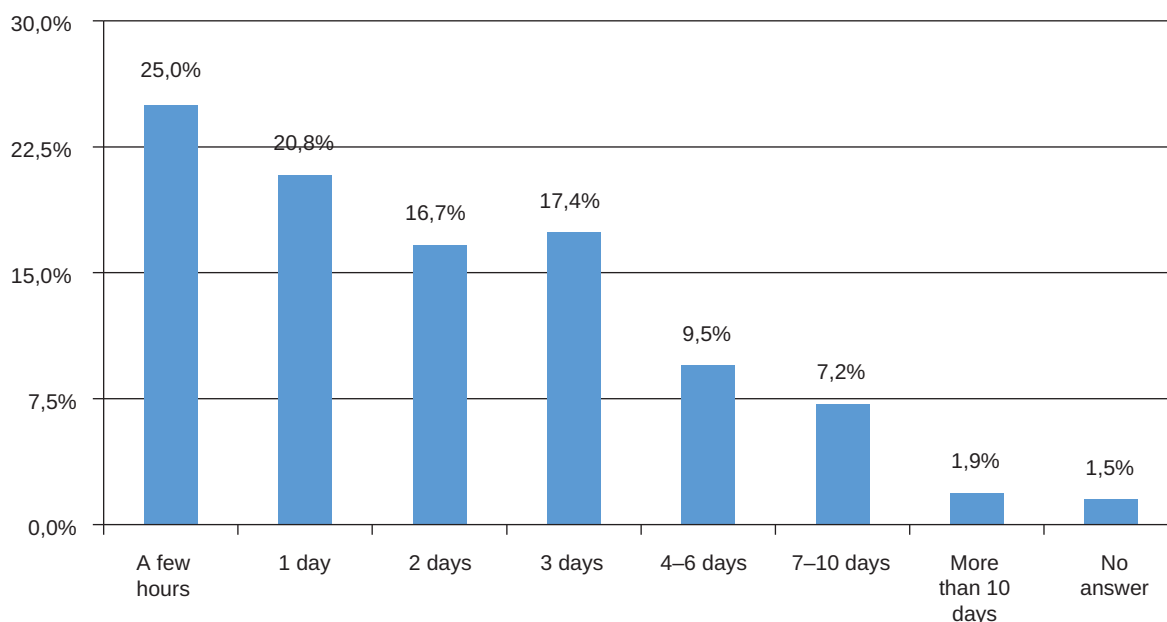
Source: Research by the authors (Analytical report according to the results of the sociological survey of visitors of cultural and historical objects, 2021).

This number of respondents is 2.5% of the number of tourists (general population) served by travel agents and tour operators in the Ivano-Frankivsk region in 2020 (calculated for two months according to the data of the official statistics website (Holovne upravlinnya statystyky v Ivano-Frankivs'kiy oblasti, 2021). This means that, for the territory of Ivano-Frankivsk region, the sample is representative.

The respondents filled out the questionnaire immediately on the spot, which guaranteed their complete return, and, in addition, the researcher was able to control the process of filling out the questionnaires, helping the respondents by clarifying certain questions. The respondents also assessed the tourist infrastructure of the object's location. These are important characteristics of the object that allow us to assess the possibility of involving objects in tourist routes and the readiness of tourist destinations to accept new tourist groups. The respondents could rate the level of infrastructural provision in points from 1 – the lowest level to 10 – the highest level of infrastructure development.

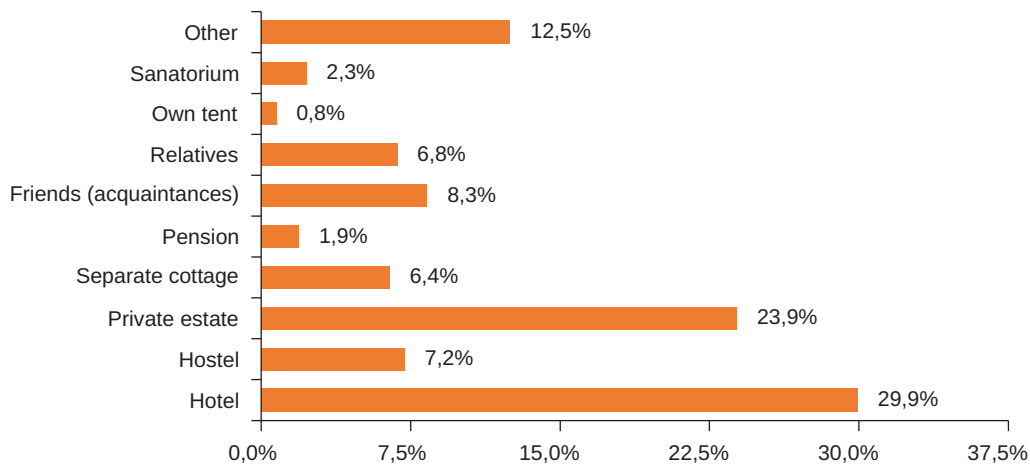
## Results and their analysis

In the process of organising tourist activity within tourist facilities, an important aspect is the possibility of forming a service complex, including accommodation, nutrition, services of entertainment and health establishments, etc. For this purpose, information on the availability and access of tourist services and other tourist entities was evaluated in the course of the study. During the survey, it was found out what services are provided within the tourist facility, and this information was compared with other answers of the respondents. The information will be useful for assessing the possibilities of increasing the monetisation of the objects and for developing recommendations for them to increase their attraction capacity. Mainly, tourists visiting famous cultural and historical sites stay in the settlements of the Ivano-Frankivsk and Transcarpathia regions for several hours, as was indicated by 25% of the respondents. 20.8% of the respondents go on vacation for 1 day, 17.4% – for 3 days, 16.7% – for 2 days, 9.5% – for 4–6 days, and 7.2% – for 7–10 days. Only a small part of the respondents (1.9%) stayed in the settlement for more than 10 days (Fig. 1).



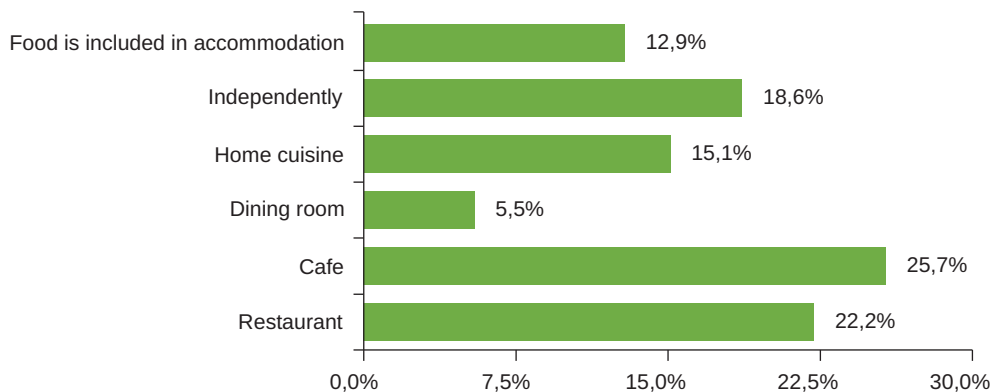
**Figure 1.** The number of days of stay in the settlement,%

According to the results of the research, 30% of the tourists stay in hotels during the trip, 23.9% – in private estates, 8.3% – with friends, 6.8% – with relatives, 7.2% – in hostels, 2.3% of the respondents stay in sanatoriums, and 1.9% – in pensions (Fig. 2). However, 12.5% of the surveyed tourists do not stay in accommodation facilities, because they visit cultural and historical objects passing through, as well as during one day.



**Figure 2.** The distribution of the respondents' answers to the question "What type of institution did you stay in?"

Regarding food establishments, the majority of tourists (25.7%) chose a café, 22.2% – a restaurant, 18.6% – independently, 15.1% – preferred home cuisine, 12.9% of the respondents indicated that food is included in the price of accommodation and 5.5% of the interviewees eat in a dining room (Fig.3).



**Figure 3.** The distribution of the respondents' answers to the question "Where do you usually eat?"

In 2020, the number of restaurants and cafes in Ukraine decreased by almost 4,000 establishments. At the beginning of 2021, 14,700 restaurants, cafes, and bars were operating, compared to the beginning of 2020, when 18,600 establishments were operating in Ukraine. Accordingly, the volume of the restaurant market decreased by almost 30% in 2020. This is the result of several lockdowns, quarantine restrictions on the restaurant business, and the absence of foreign tourists (Zhurnal Forbs v Ukrayini, 2020; Derzhavna sluzhba statystyky v Ukrayini, 2020). Today, the war on the territory of Ukraine also imposes restrictions on the activity of food establishments, although there are no official statistics. However, in the western part of the territory of Ukraine, the tourist infrastructure was not as affected by the consequences of the war as in the southern and eastern parts.

In the course of the survey, the respondents were asked to assess the state of the infrastructure in terms of the availability of food trade establishments and food establishments in the region, where 1 meant that establishments are practically absent and 10 – that establishments are numerous, serving a sufficient number of different consumers and tourists. Five groups of the answers were ranked: the 1<sup>st</sup> group included objects with an assessment of 9 and 10 points, the 2<sup>nd</sup> group – those assessed for the presence of trade and food establishments at 8 and 7 points, the 3<sup>rd</sup> group – 6 and 5 points, the 4<sup>th</sup> group – 4 and 3 points, and the 5<sup>th</sup> group – 1 and 2 points.

The respondents gave the following answers, assessing the availability of food trade and food establishments near tourist facilities. More than half of the respondents (64.7%) believe that the territories where their facilities are located are very well and well provided with food trade establishments and food establishments (very well provided – 33.8%, well provided with these establishments

– 30.9%). These are the territories of cities and densely populated rural settlements. 8.1% of the respondents indicated the average level of the provision of food trade establishments and food establishments. 22.8% of the respondents estimate the level of the provision of food trade territories and food establishments as low (8.8%) and very low (14%). 4.4% of the respondents did not assess the level of the provision of the food trade territories and food establishments (Fig. 4).

To get to the location of the cultural and historical object, 41,9% of the respondents choose the following type of transport: their car (Table 12), 19,5% – a bus (flight), 14,4% – a bus (tourist), 13,9% – a train (Fig. 5). A small part of the respondents (3,4%) hitchhike and choose bla-bla-car. A car (rented, taxi) is not popular among the tourists, the share of which is 3%, and a plane – 2,2%. Less than 2% of the respondents use bicycle transport for travel.

The respondents were also asked to rate the location of the object, where 1 – location is outside tourist centres, far from transport highways, and 10 – location is within a large city or near major highways. We ranked the answers into 5 groups: very good location of objects – the 1<sup>st</sup> group (those objects that were assigned 9 and 10 points), the 2<sup>nd</sup> group – those that were evaluated in terms of the location at 8 and 7 points, the 3<sup>rd</sup> group – 6 and 5 points, the 4<sup>th</sup> group – 4 and 3 points, and the 5<sup>th</sup> group – 1 and 2 points. The location of the object was rated as very good by 69,1% of the respondents (the 1<sup>st</sup> group of objects), good location (the 2<sup>nd</sup> group of objects – 14% of the respondents), an average level of the location (the 3<sup>rd</sup> group of objects) of their tourist objects was estimated by 7,4% of the respondents. 3,7% of the respondents identified a low level of location of objects (the 4<sup>th</sup> group), and 5,9% – as very low (the 5<sup>th</sup> group), these are mainly remote tourist natural objects in the mountainous area (Fig. 6).

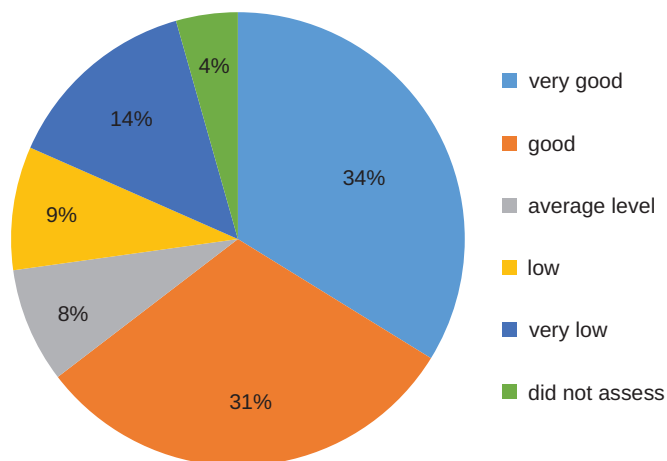


Figure 4. The respondents' assessment of the provision of food trade establishments and food establishments

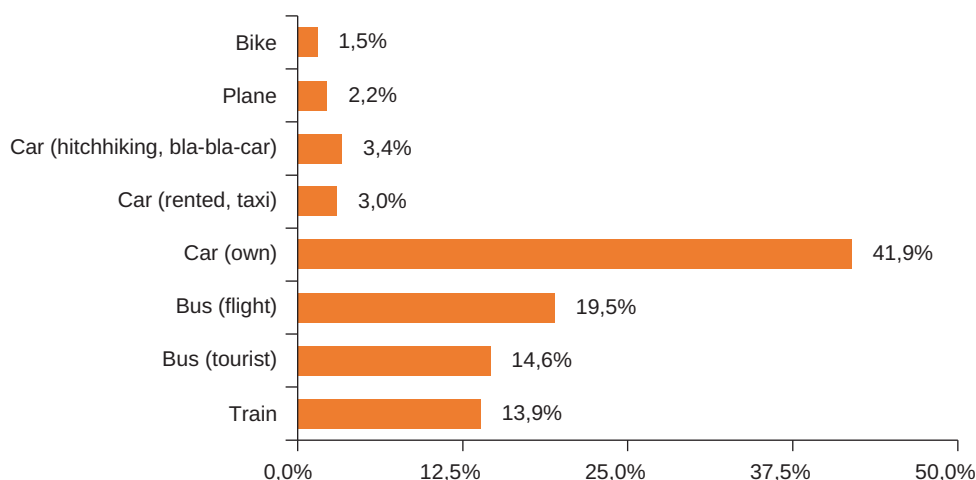
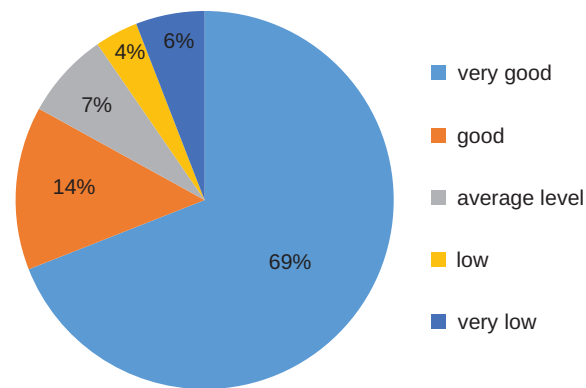
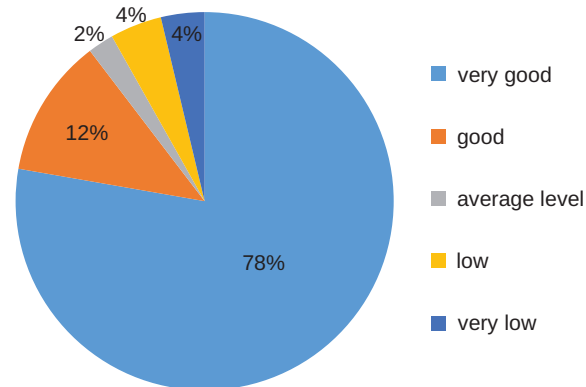


Figure 5. The distribution of the respondents' answers regarding the types of transport they use to get to cultural and historical objects



**Figure 6.** The assessment of the proximity of tourist facilities to tourist centres and transport highways

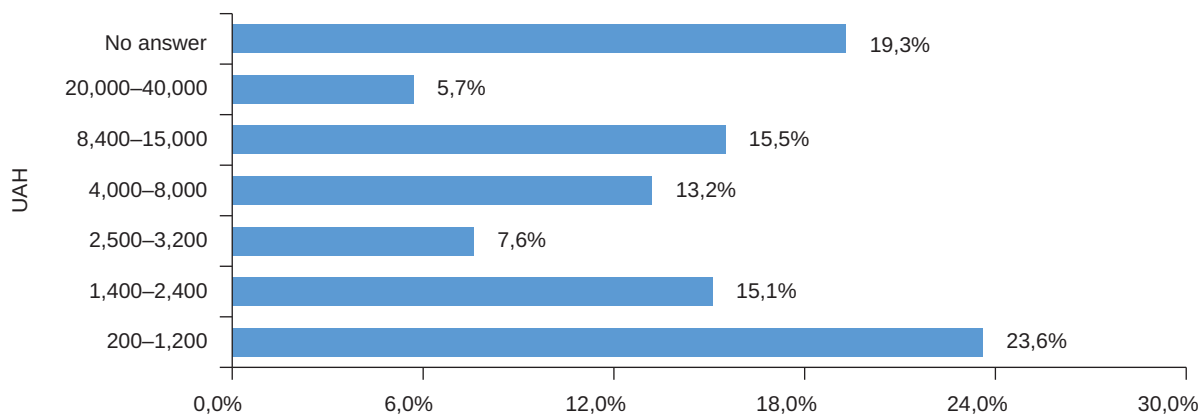
The evaluation of the transport accessibility of the tourist objects within the questionnaire was carried out on a rating scale from 1 – this is the location of the tourist object at a distance of more than 5km from paved roads and 15–20 km from highways and railways, to 10 – directly near a paved road, at a distance of up to 3km from the main highways and railway stations. We ranked the answers into 5 groups: very good transport accessibility (10 and 9 points), good transport accessibility (7 and 8 points), average level of transport accessibility (6 and 5 points), low level of transport accessibility – 4 and 3 points, and very low level of transport accessibility (with an assessment of 1 or 2 points). The analysed answers to the questions made it possible to state that, in general, the respondents rate the transport accessibility of the objects as very good (77.2%) and good (11.8%). An average level of transport accessibility was indicated by 2.2% of the respondents, low level – 4.4%. 3.7% of the respondents indicated a very low level of transport accessibility, these are remote natural objects in the mountains (e.g. Ternoshora) or historical and cultural objects in remote villages with poor roads (e.g. Ray Manor) (Fig. 7).



**Figure 7.** The assessment of the transport accessibility of the tourist object

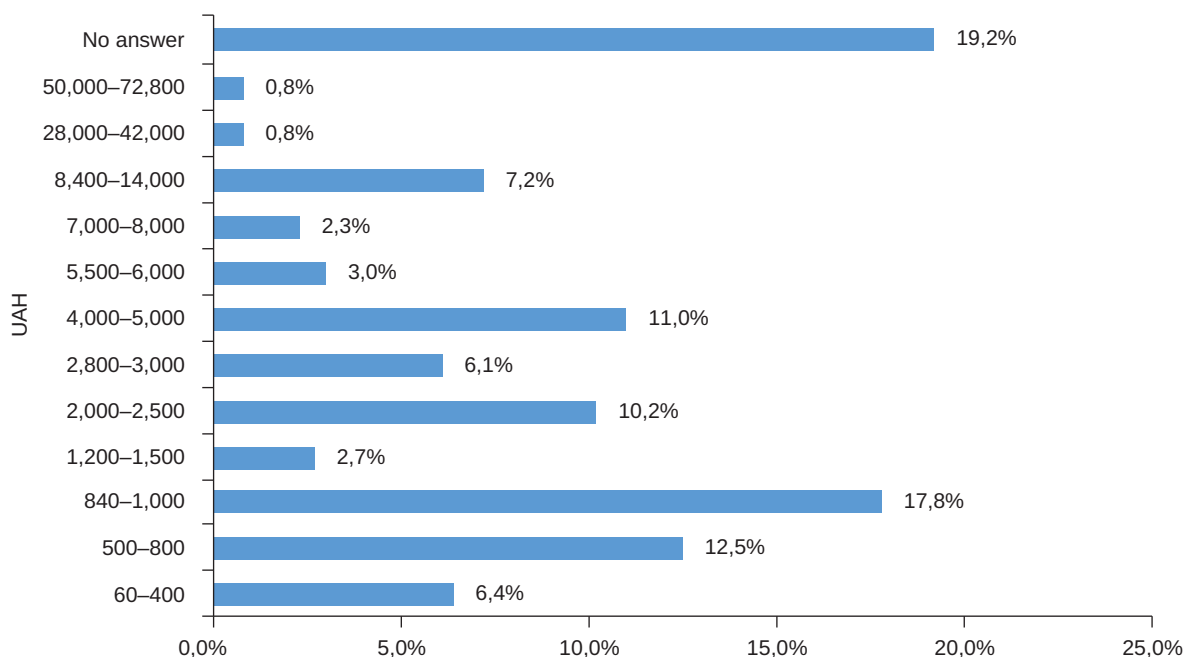
The total range of expenses of the surveyed tourists – which includes payment for accommodation, food, and transport – is 200–40,000 UAH. 23.5% of the respondents answered that they are willing to spend only 200–1,200 UAH on travel, 15.1% – 1,400–2,400 UAH, 7.6% – 2,500–3,200 UAH, 13.2% – 4,000–8,000 UAH, 15.5% – 8,400–15,000 UAH, 5.7% – 20,000–40,000 UAH, and 19.3% – no answer. Less than 5% of the tourists are willing to spend 2,500–2,800 UAH and 12,000–15,000 UAH for accommodation, food, and transport (Fig. 8).





**Figure 8.** The distribution of the respondents' answers to the question "How much money are you willing to spend on accommodation, food, transport?"

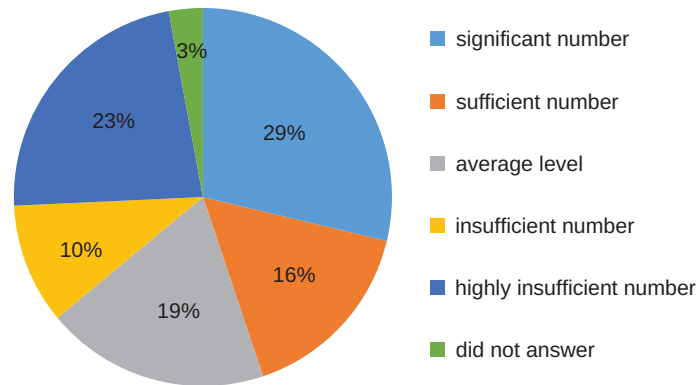
In addition to funds for accommodation, food, and transport, 17.8% of the total number of the surveyed tourists are willing to spend an additional 840 to 1,000 UAH, 12.5% of the respondents – 500–800 UAH, 11% – 4,000–5,000 UAH, 7.2% – 8,400–14,000 UAH, 6.4% – up to 400 UAH, and 19.3% – no answer (Fig. 9). Only a small number of tourists – 0.8% – can afford to spend more than 28,000 UAH. Usually, these are foreigners, who are willing to pay a large sum of money for tourist services.



**Figure 9.** The distribution of the respondents' answers to the question "What amount of money are you willing to spend additionally on vacation in the Carpathian region, in addition to accommodation, food, and transport?"

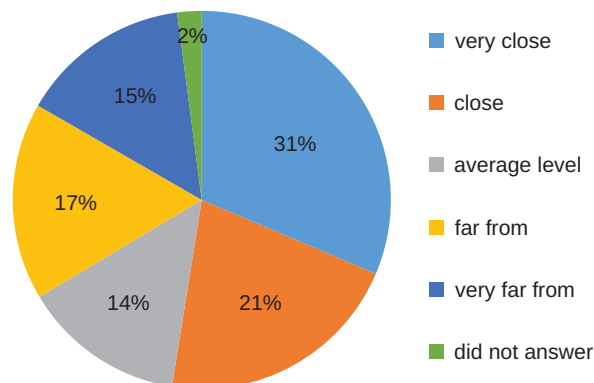
The presence of trade establishments, including souvenir shops within the tourist destinations, is an integral part of the tourist infrastructure. Trade in souvenirs is a part of the income of enterprises in various tourist sectors. The assessment of trade infrastructure within the survey was carried out on a rating scale from 1 – practically absent to 10 – numerous and serves a sufficient number of different consumers and tourists. We ranked the answers into 5 groups: the 1<sup>st</sup> group included objects with an assessment of 9 and 10 points, the 2<sup>nd</sup> group – those evaluated for the presence of trade establishments at 8 and 7 points, the 3<sup>rd</sup> group – 6 and 5 points, the 4<sup>th</sup> group – 4 and 3 points, and the 5<sup>th</sup> group – 1 and 2 points. The respondents gave the following answers, evaluating the presence of trade establishments near tourist objects: 28.9% of the respondents indicated that there is a significant number of trade establishments near the objects, 16.1% of the respondents

believe that the area where their tourist objects are located has a sufficient number of trade establishments, 19.1% of the respondents indicated that the area where their tourist facilities are located is provided with trade establishments at an average level, 10.3% of the respondents believe that the territory does not have a sufficient number of trade establishments in industrial goods, including souvenirs, and 22.8% of the respondents indicated that the territory is extremely insufficiently provided with these facilities. 2.9% of the respondents did not answer the question (Fig. 10).



**Figure 10.** The respondents' assessment of the presence of establishments selling industrial goods, including souvenirs, near tourist facilities

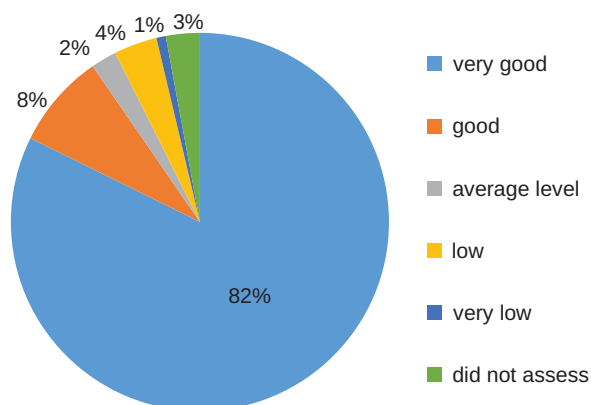
In the course of the survey, the respondents were asked to assess the presence and proximity of health care facilities to tourist facilities, where 1 – is practically absent, 10 – are numerous and serve a sufficient number of different consumers and tourists. In general, 52.9% of the respondents believe that health care facilities are located very close and close enough to tourist attractions (31.6% very close and 21.3% close). 14% of the respondents indicate the average level of proximity of these institutions. The respondents also believe that 17% of establishments are located far from tourist attractions, and 14.7% believe that these establishments are located very far from tourist attractions. 2.1% of the respondents did not answer the question (Fig. 11).



**Figure 11.** The respondents' assessment of the proximity of health care facilities

Analysing these results, it can be stated that the respondents may have their own negative experience of service in health care institutions. Since the sphere of health care in Ukraine is in a state of reformation, we can assume that this circumstance affects the assessment by the residents of Ukraine. The quality of communication is an important component of quality tourist infrastructure. During the survey, the respondents were offered to evaluate the quality of mobile communication; the survey was conducted on a rating scale from 1 to 10 points, where 1 – is no mobile communication, and 10 – mobile communication is of high quality. The majority of the respondents (82.3%) believe that the quality of mobile communication is very good (excellent), and 8.1% of the respondents believe that it is good. Less than 10% of the respondents believe that the quality of mobile communication is insufficient: average (2.2%), low (3.7%), and very low (0.8%). This assessment

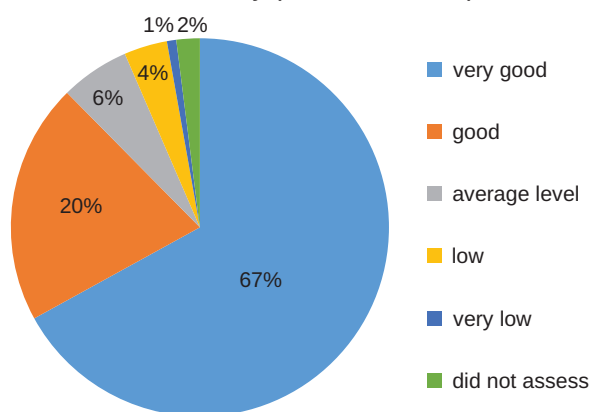
of the quality of communication was given by those respondents whose facilities are located in remote mountainous areas. 2.9% of the respondents were undecided about the question (Fig. 12).



**Figure 12.** The respondents' assessment of the level of mobile communication

The ecological situation in the territories of tourist destinations is considered a resource component of the development of tourist activities. According to the UNWTO (Ofitsiynny sayt Vsesvitn'oyi turysts'koyi orhanizatsiyi, 2021), more than 80% of tourists prefer to rest in ecologically-clean tourist destinations. Therefore, during the survey, the respondents were asked to assess the ecological situation in the territory of the location of tourist facilities. The ecological state of the territory was assessed on a point scale, where 1 – is a very poor ecological state, and 10 – is an excellent ecological state of the territory. In general, the respondents assessed the ecological state of the territory as very good and good (87.6%): 67% assessed the ecological condition as very good, 20.6% – as good. 5.9% of the respondents assessed the ecological condition of the territory at an average level, 3.7% as a poor state, and 0.8% as a very poor condition. 2% of the respondents were undecided about the question (Fig.13).

In the process of the research, some subjectivity and inconsistency of such assessment was revealed: the respondents from the Ivano-Frankivsk National Drama Theatre (named after Ivan Franko) rated the environmental state of the territory as 10 (excellent), while the respondents from “The Museum of Family Professions”, located nearby (across the road), rated at 6 out of 10 (average level).

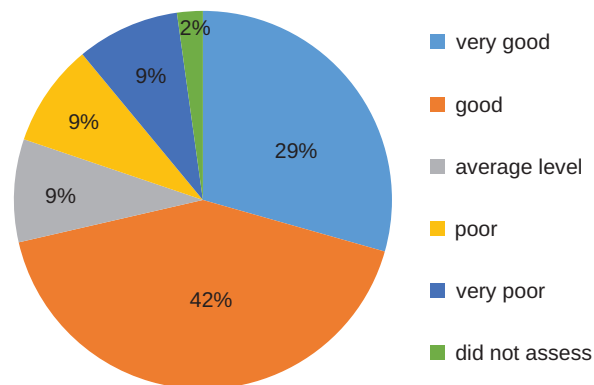


**Figure 13.** The respondents' assessment of the ecological state of the tourist destination

A poor and very poor environmental state of the territories was assessed by those respondents whose facilities are located near large industrial enterprises (Burshtynska TPP), the environmental problems of which are periodically reported in the press, i.e. it can be assumed that such an assessment by the respondents was made based on established public opinion about the problem as well as their knowledge from the media and other sources. The organisation of life support systems in tourist facilities affects the quality of service in them. Therefore, the respondents were offered to give an assessment of water supply and drainage systems in the area of the location of the tourist facility, as well as the waste management system. The survey was conducted on a rating

scale from 1 to 10 points, where 1 is a very bad state and 10 is an excellent state, where modern methods and approaches are used (separate waste sorting, central water supply and drainage, water saving means, etc.). 71.4% of the respondents rated the condition as very good and good (29.4% – excellent condition of water supply and drainage systems, waste management systems, 42% – good condition). 8.8% of the respondents assessed the state of the systems in the territory of tourist facilities as average, 8.8% – as poor, 8.8% – as very poor (Fig.14). The state of water supply and drainage systems as well as waste management systems were negatively assessed by those respondents whose objects are located very far away in the mountains (e.g. Ternoshora). They also assessed negatively objects whose arrangement has just started or is planned to be started in the future (e.g. the Pniv Castle, Ray Manor).

The tourists encountered several problems while visiting the cultural and historical sites of the Carpathian region. The majority of the respondents (15%) indicated that a significant disadvantage is the poor road conditions, which complicates the movement of vehicles. A significant part of the surveyed tourists (13.8%) indicated the limited range of services at the site, 11.7% – the absence of cultural and entertainment establishments. Among the services the lack of which causes the greatest discomfort, the surveyed tourists noted the following: limited access to the Internet (9.5%), the lack of food establishments (8.5%), insufficiently developed transport connections (10.9%), littered territory (6.3%), and unavailable mobile communication (5.1%). Regarding the improvement of recreation in the Ivano-Frankivsk and Zakarpattia regions, according to the tourists who answered the question, attention should be paid to: the improvement of infrastructure (22.2%), the improvement of the territory (18.5%), information provision (7.4%), public restrooms (3.7%), and cultural and entertainment events (3.7%).



**Figure 14.** The assessment of the provision of the tourist destination with water supply, drainage, and waste management systems

## Conclusions

A sociological survey within the framework of the “Carpathian Cultural Route” project was conducted to evaluate the cultural heritage sites of the Ukrainian Carpathian region from the point of view of attractiveness, popularity, etc. in order to attract them to the international tourist route. The assessment of the tourist infrastructure near the objects during the survey was carried out in order to plan the cross-border tourist product “Carpathian Cultural Route”.

An open survey was conducted to find out the problems and expectations of the respondents within the framework of the project and possible assistance in the implementation of their tourism activities. The interpretation of the results of the questionnaire will allow the selection of the most attractive tourist objects of the study region to substantiate their inclusion in the tourist route “Carpathian Cultural Route”.

As a result of the research, the following was found. Mainly, tourists visiting tourist places stay in the settlements of the Ivano-Frankivsk and Zakarpattia regions for several hours and go on vacation for one day. Most tourists stay in hotels and private estates during their travels. As for food establishments, most tourists choose cafes and restaurants, and eat on their own. Evaluating the

availability of food trade establishments and food establishments near the objects, more than half of the respondents believe that the area where their objects are located is very well and well supplied with food trade establishments and food establishments. To get to the location of the tourist object, the majority of the respondents choose their car and bus. A significant part of the respondents rated the proximity of the location of tourist facilities to tourist centres and transport highways as very good. The respondents rate the transport accessibility of tourist facilities as very good, too. The total range of expenses of the surveyed tourists – which includes payment for accommodation, food, and transport – is 200–40,000 UAH. Additionally, except for accommodation, food, and transport, the respondents are willing to spend from 840 to 1,000 UAH on vacation in the Carpathian region. Usually, foreigners are willing to pay a large sum of money for tourist services.

Evaluating the presence of trade establishments, the majority of the respondents indicated that there is a significant or sufficient number of trade establishments near the objects. Also, a large number of the respondents believe that health care facilities are located very close and close enough to tourist attractions. The quality of communication is an important component of quality tourist infrastructure. The overwhelming number of the respondents believe that the quality of mobile communication is very good (excellent). In general, the respondents assessed the ecological condition of the territory as very good and good (87.6%). Regarding the assessment of the provision of the tourist destination with water supply, drainage, and waste management systems, the majority of the respondents rated the condition as very good and good, too.

Consequently, after conducting the research, it can be concluded that within the limits of tourist destinations, there is a sufficient supply and quality of infrastructure to create a full-fledged tourist product. Several wishes were expressed by the respondents: the improvement of the infrastructure, the improvement of the territory, information provision, increasing the number and quality of public restrooms, and the revitalisation of cultural and entertainment events (Kachala et al., 2023).

The research is the first step of the project implementation methodology and its results will be used in the formation of new initiatives launched within the project, aimed at creating and promoting the “Carpathian Cultural Route” on the market of tourist services. The implementation of the project, in the framework of which a sociological survey was conducted, will give an impetus to the development of tourism in the studied region in the post-war period.

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