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ASSESSMENT OF THE ATTRACTIVENESS OF THE TOURIST AND RECREATION AREA OF BIELSKO COUNTY

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Purpose: The development of the tourist function is possible in attractive tourist areas. The indication of areas of tourist interest is possible, thanks to the assessment of tourist and recreational attractiveness. Conditions for the development of tourism can be described, among others using aggregated synthetic indicators. The purpose of the work is to analyze the attractiveness of the tourist and recreational space of the Bielsko County (Silesian Voivodeship, Poland).
Design/methodology/approach: The research area was chosen because of its tourist potential and location in a region with exceptional natural and cultural values. The research used multidimensional comparative analysis, synthetic measures method, and questionnaire form.
Findings: It has been shown that in the adopted research model, the most attractive tourist destination is the commune of Szczyrk, and the most attractive investment is the urban-rural commune of Czechowice-Dziedzice.
Research limitations/implications: The results of surveys do not always coincide with the results of the multidimensional comparative analysis made using the synthetic measures method, so it is worth using various research methods to assess the attractiveness of the tourist and recreational space of a given region.
Originality/value: Valorization carried out using the Gołembski synthetic metering method allowed to determine how the general conditions for the development of tourism are shaped in individual communes of the Bielsko County.

Keywords: tourism management, tourist potential, comparative analysis, tourist values.

Category of the paper: Case study.

1. Introduction

Tourism is seen as a factor in the development of cities, municipalities, and regions. It plays a vital role in the process of economic growth, which affects the quality of life of residents (Du, et al., 2016). The dynamic development of tourism is the result of changes taking place in the world. The evolution of new technologies facilitating access to information, the development of transport, freedom of travel, increasing the wealth of societies, and changing the behavior and preferences of tourists have made tourism a global phenomenon and is itself an important factor of globalization (Żabińska, 2013).

The development of tourism requires, among other things, adequate tourist attractiveness, which consists of tourist values and the material base for their use. Tourist attractiveness is the properties of an area or a given city that result from various features of the natural environment as well as the cultural environment. These features arouse the interest of tourists and attract them to a given place. Tourist attractions, land development, and transport access also determine the attractiveness of the area (Kowalczyk, 2014).

Tourism space consists of a geographical and socio-economic area in which tourism phenomena occur. It includes elements of the natural environment, cultural components, and all service and technical infrastructure devices, thanks to which tourists can meet their needs. The main features of tourism space include diversity (diversity of the natural and cultural environment) and lack of continuity, i.e., large dispersion of individual elements of the place (MacLeod, 2017).

The development of the tourist function is possible in areas which, for a tourist or visitor, are worthy of arrival, and therefore attractive to tourists. The touristic attraction is understood as the property of the area resulting from a set of natural or non-natural features that attract and interest tourists. Indicating areas of tourist interest is possible, thanks to the evaluation of tourist and recreational attractiveness (Pukowiec, and Kurda, 2013). Conditions for the development of tourism can be described, among others using aggregated synthetic indicators. They represent the condition and quality of the natural and cultural environment, natural resources, the wealth of tourism development, and transport accessibility. These indicators are intended to determine the tourist attractiveness of the area (Habibi 2017). The area perceived as attractive for tourists is recording an increase in tourist traffic, which is associated with an increase in income and the development of the labor market. Other indicators determine the investment attractiveness of a given area (Mendola, and Volo, 2017).

2. Aim of the study and research area

Tourism management is considered an interdisciplinary issue, while tourism itself is a multifunctional field (Michałowski, and Ryś, 2007). In classical organization theory, management is a set of various managerial functions, among which planning, organization, coordination, motivation, and control are most frequently mentioned (Koźmiński, and Piotrowski, 2000). The essence of management is that all organizations, including tourism - large, small, profit-oriented, or not having such a purpose, use a combination of human, financial, material, and information resources to carry out their tasks. These resources or expenses are usually obtained from the organization's environment. Tourism management creates a set of activities (including planning and making decisions in the broadly understood tourist economy, organizing, managing, i.e., People Management) focused on the resources of tourist organization (human, material, financial, natural, information) and used to achieve these goals organization efficiently and effectively. Planning and decision making, guiding future generations, helps maintain management efficiency. Effective management is possible thanks to the information that often flows from complex statistical surveys (Michałowski, and Ryś, 2007).

The nature of the tourist economy means that a significant part of the tasks related to the development of tourism is strictly local. Therefore, according to the existing administrative division, it focuses on the territory of municipalities and individual cities. This means that local government administration is an essential link in tourism management. Among the commune's tasks, distinguished from tourism, it is particularly worth mentioning the issues of spatial order, including the preparation of local spatial development plans, general infrastructure, local public transport, cultural, and physical culture facilities (Dziedzic, 1998). The purpose of the work is to analyze the attractiveness of the tourist and recreational space of Bielsko County (Silesian Voivodeship, Poland). The research area was selected because of its tourist potential and location in a region with exceptional natural and cultural values. Bielsko County is located in the southern part of the Śląskie Voivodeship. It covers an area of 457 km^2. Bielsko County consists of 10 communes (Figure 1).

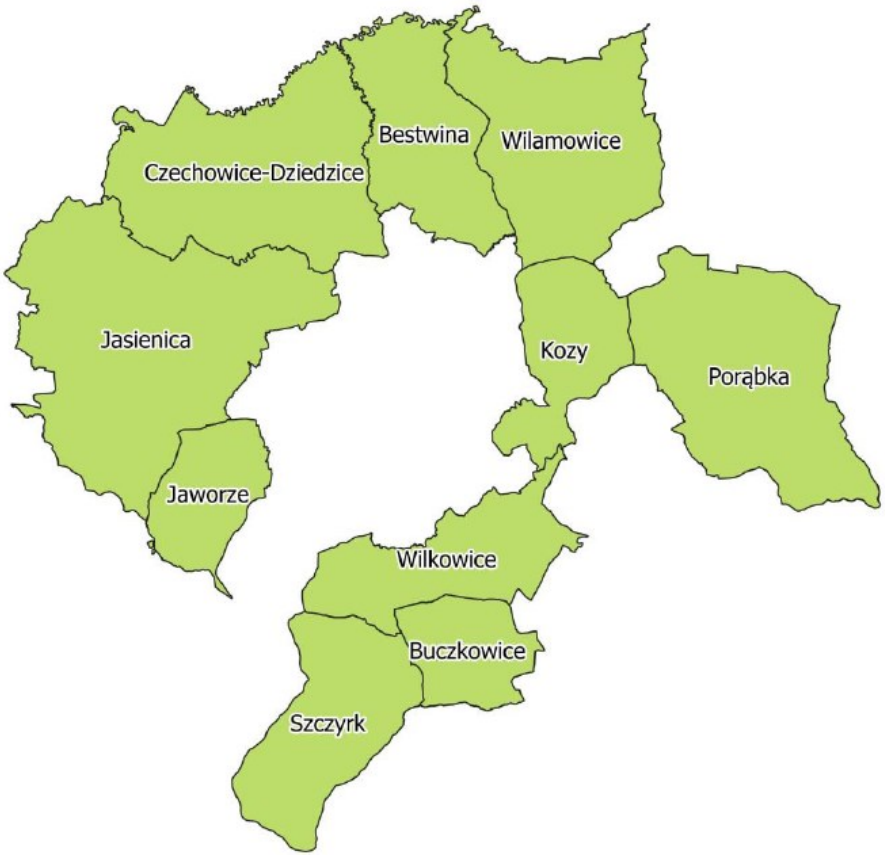

Figure 1. Municipalities included in the Bielsko County. Source: own study.

Bielsko district belongs to a region with a high economic and social potential. According to data for 2017 Bielsko district has 164 003 inhabitants. The number of county residents increases every year, which is caused by, among others, by positive birth rate. There are about 16 thousand in the Bielsko County. Business entities and the unemployment rate is 4.0%. The district is dynamically developing industry, tourism, and agriculture. The area under analysis also has tourist values.

3. Materials and methods

Analyzes of socio-economic conditions are often performed in spatial reference, i.e., objects located in space are characterized by extensive metadata sets (Büchi et al., 2016, Prus et al., 2018, Ziernicka-Wojtaszek, and Lisiak, 2020). These data come from field measurements or obtained from publicly available public statistics databases. Analysis of the data collected in this way is often performed using a classification procedure that enables multi-dimensional, spatial analysis of phenomena (King, and Prus, 2018). The research used statistical data obtained from the Local Data Bank, tourist brochures, and from information contained on the websites of individual County communes, as well as the County itself and the literature on the subject. Multivariate comparative analysis was used to assess the tourist and recreational

attractiveness of the Bielsko County. This method is used quite widely and allows for a comparison of multi-feature objects and their ranking (Pukowiec, and Kurda, 2013). The descriptive approach, which belongs to the group of inductive research methods, was also used. The descriptive characteristics of the Bielsko County were made based on industry and thematic studies, including promotional folders, tourist guides, and strategic documents: the Bielsko Poviat Development Strategy until 2020, the Environmental Protection Program for the Bielsko Poviat for 2017-2020 with a perspective up to 2024, as well as Sustainable Public Transport Plan for the Bielsko Poviat.

Valorization potential tourist-site individual local communities of Bielsko County performed by meter synthetic Gołembski (1999). It is a method of multiple comparative analysis, which allows assessing the attractiveness of tourist and investment of the selected area. The attributes describing the tourist and recreational attractiveness were included in two spheres, divided into nine sections (Table 1).

Table 1.
Spheres and departments within which diagnostic variables were selected

Sphere	Departments	Weight
Tourist attractiveness	Tourist attractions	0,40
	Condition of the environment	0,15
	Environmental Protection	0,15
	Transport accessibility	0,10
	Catering, hotel, and accompanying facilities	0,20
Attractiveness for investors	Service infrastructure	0,32
	Technical infrastructure	0,25
	Population relations	0,23
	Commune finances	0,20

Source: own source based on Gołembski (1999).

Both areas were taken into account in the analysis. The first aims to determine the tourist and recreational attractiveness of individual municipalities belonging to the Bielsko County for tourists. The second one describes the attractiveness of the analyzed communes for investors. Both spheres are complementary and complement each other in the context of tourist development. The study adopted 46 diagnostic features that were unified so that they were all stimulant (an increase in the value of the explanatory variable leads to an increase in the explained variable). Destimulants have been transformed into stimulants by a method called maximum shift. The obtained values of a given feature in the commune were subtracted from the maximum amount of the element got in the group of examined municipalities. Then the diagnostic variables were normalized according to the formula (1), i.e., the value of the next indicator was divided by the value of the reference point (standard), in this case, the maximum recorded value of a given feature among the examined communes (Gołembski, 1999):

$$n_{ij} = \frac{y_{ij}}{y_j \max} \quad (1)$$

where:

n_{ij} – normalized value of the j-th indicator in the i-th commune,

y_{ij} – value of j-th indicator in the i-th commune,

y_j max – maksymalna wartość j-tego wskaźnika o charakterze stymulanty w gminach.

The values of normalized indicators are in the range of 0 to 1. The amount of 1 means that the analyzed commune 100% corresponds to the feature standard under consideration (Gołembski, 1999).

Standardization is an action aimed at adapting diagnostic variables to the role of partial criteria in the process of assessing a complex phenomenon. Usually, diagnostic features are expressed in different units of measure and correspond to different numerical ranges. Standardization methods are used to transform absolute values into relative values. The transformed variable is unchanged and standardized as to the field of benefits it can adopt. Standardization of features, therefore, allows comparative studies of objects (complex phenomena) described using many variables (Prus, and King, 2017). In the next stage, diagnostic variables were assigned weights, and then a synthetic measure was calculated for departments and spheres using the formula (2) (Hakuć-Błażowska et al., 2018).

$$Md_i = \sum_{j=1}^{n} w_j * n_{ij} \quad (2)$$

where:

Md_i – synthetic meter for department d in the i-th commune,

w_j – the weight of the j-th index in the section of di,

n_{ij} – the normalized value of the j-th indicator in the i-th commune.

In the last stage, the value of the synthetic indicator of general determinants of tourism development was calculated for each of the communes of Bielsko County. Figures showing the spatial diversity of research results were made using QGIS software.

In the area of tourist attractiveness, variables were selected, such as the number of natural monuments, the area of forests and arable land, the number of museums, monuments, the length of tourist routes, but also the number of objects included in the tourist, hotel and accompanying facilities (Table 2).

Table 2.
Diagnostic features in the area of tourist attractiveness and their weight

The sphere of analysis	Lp.	Trait	Unit of measure	Weight
Tourist attractiveness	**Tourist attractions**			
	1.	forest area	ha	0,25
	2.	agricultural area	ha	0,05
	3.	the number of nature monuments	pieces	0,15
	4.	museums	number of obects	0,10
	5.	monuments	number of objects	0,15
	6.	length of hiking trails	km/km^2	0,20
	7.	number of cultural events taking place in the commune and their intensity during the year	number of events/365*100	0,10
	Condition of the environment			
	8.	amount of municipal waste collected during the year	tones/km^2	0,40
	9.	share of biologically treated sewage in the amount of sewage requiring treatment	%	0,60
	Environmental Protection			
	10.	ratio of sewage treatment plant capacity to wastewater requiring treatment	dm^3/year/sewage in dm^3	0,60
	11.	illegal dumps closed down during the year	pieces	0,40
	Transport accessibility			
	12.	length of provincial roads	km/km^2	0,35
	13.	length of national roads	km/km^2	0,35
	14.	number of railway stations	lnumber/km^2	0,30
	Catering, hotel, and accompanying facilities			
	15.	restaurants	number of objects	0,10
	16.	Coffeehouses	number of objects	0,08
	17.	Bars	number of objects	0,05
	18.	other food outlets	number of objects	0,06
	19.	hotels	number of objects	0,12
	20.	pensions	number of objects	0,10
	21.	shelters	number of objects	0,04
	22.	holiday centers	number of objects	0,05
	23.	Guest rooms	number of objects	0,05
	24.	agritourism farms	number of objects	0,06
	25.	sport fields	number of objects	0,05
	26.	gyms	number of objects	0,04
	27.	Swimming Pools	number of objects	0,04
	28.	swimming	number of objects	0,04
	29.	winter equipment rentals	number of objects	0,04
	30.	water equipment rentals	number of objects	0,04
	31.	bicycle rentals	number of objects	0,04

Source: own study.

In the area of investment attractiveness, variables characterizing service, technical and social infrastructure were selected, such as a number of population and agriculture service points (shops, pharmacies, gas stations, etc.), length of the water and sewage network, unemployment rate or income on one inhabitant (Table 3).

Table 3.
Diagnostic features in the area of investment attractiveness and their weight

The sphere of analysis	Lp.	Trait	Unit of measure	Weight
Attractiveness for investors	**Service infrastructure**			
	32.	shops	number of objects	0,25
	33.	pharmacy	number of objects	0,10
	34.	health centers and clinics	number of objects	0,10
	35.	gas stations	number of objects	0,25
	36.	ATM machines	number of objects	0,20
	37.	banks and exchange offices	number of objects	0,10
	Technical infrastructure			
	38.	length of water supply network	km/km^2	0,35
	39.	length of the sewer network	km/km^2	0,35
	40.	population using the gas network	number/whole number	0,30
	Population relations			
	41.	population density	people/km^2	0,60
	42.	unemployment rate	%	0,40
	Commune finances			
	43.	income per capita	zl/year	0,30
	44.	total income of the commune	zl/year	0,40
	45.	commune's own income – property tax	zl/year	0,15
	46.	the share of subsidies and subsidies in the commune's total revenues	%	0,15

Source: own study.

The index analysis of individual communes of the Bielsko County was supplemented by surveys. The study was conducted with the help of a diagnostic study in the form of an anonymous survey. The survey aimed to find out the opinions of the inhabitants of Bielsko County about the attractiveness of the tourist and recreational space of individual communes. The survey form contained four closed questions, one open question, and a metric. Surveys were conducted in May 2019 using the web application. Sixty respondents took part in the research.

4. Results and conclusions

The Szczyrk municipality turned out to be the most attractive in terms of tourism. The value of the synthetic measure (0.32) for this commune is higher than for other municipalities (Figure 2). This may be because Szczyrk has the most hiking trails and ski runs. It also has the most gastronomic and accommodation facilities. The second place went to equally the municipalities of Czechowice-Dziedzice and Wilkowice (0.25). Slightly worse was the commune of Jasienica (0.22). These are municipalities with a large number of monuments, cultural events, and service centers for population and agriculture. In the adopted research model, the municipalities of Buczkowice and Wilamowice turned out to be the least attractive, obtaining a synthetic index value of 0.15. This assessment was influenced by: a poorly

developed gastronomy, accommodation and accompanying network, as well as a small area of forests and natural monuments.

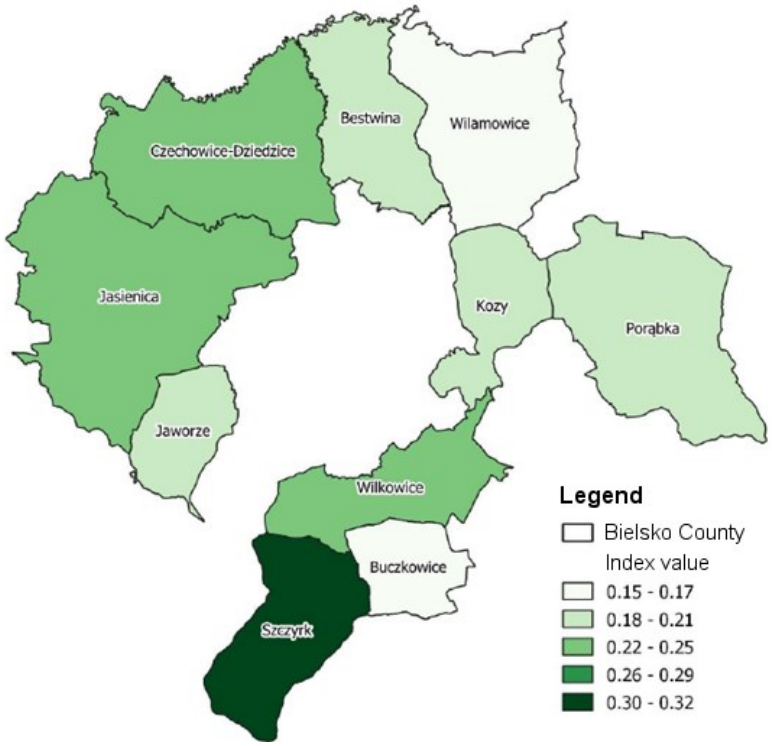

Figure 2. Typology of communes of the Bielsko County due to tourist attractiveness. Source: own study.

The most attractive in terms of investment turned out to be the Czechowice-Dziedzice urban-rural commune (value of the synthetic index equal to 0.42). It is a commune for which high amounts of synthetic indicators were recorded in all four divisions making up investment attractiveness (Figure 3). The next places in the ranking of investment attractiveness were taken by the municipalities of Wilamowice (value of the synthetic index: 0.29) and Kozy (cost of the synthetic index equal to 0.28). The lowest values of the index were obtained by the Szczyrk commune (0.15).

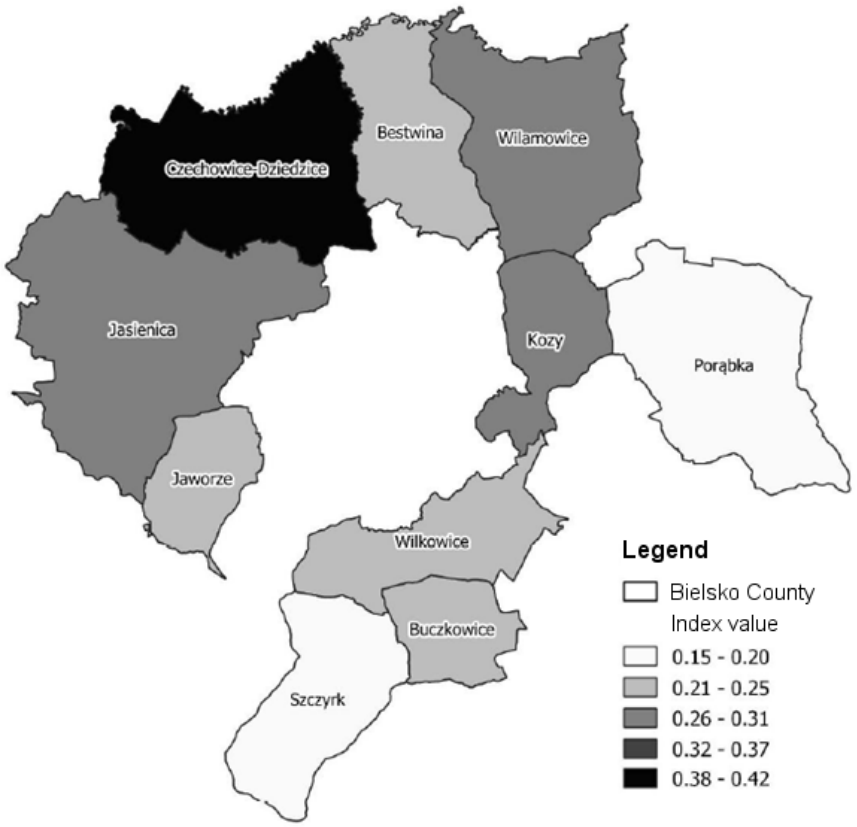

Figure 3. Typology of communes of the Bielsko County due to investment attractiveness. Source: own study.

The conducted research showed that in the adopted research model, the most-suitable commune for the development of tourism is the urban-rural commune of Czechowice-Dziedzice (the value of the synthetic index equal to 0.67). In the case of this commune, the highest amount of the synthetic indicator in the sphere of investment attractiveness was recorded, and the second-largest value of the index in the case of tourist attractiveness (Figure 4). Distant places in the ranking were followed by the following communes: Jasienica (0.48), Szczyrk, Wilkowice, and Kozy (synthetic index value equal to 0.47), followed by Jaworze (0.45) and Wilamowice (0.44).

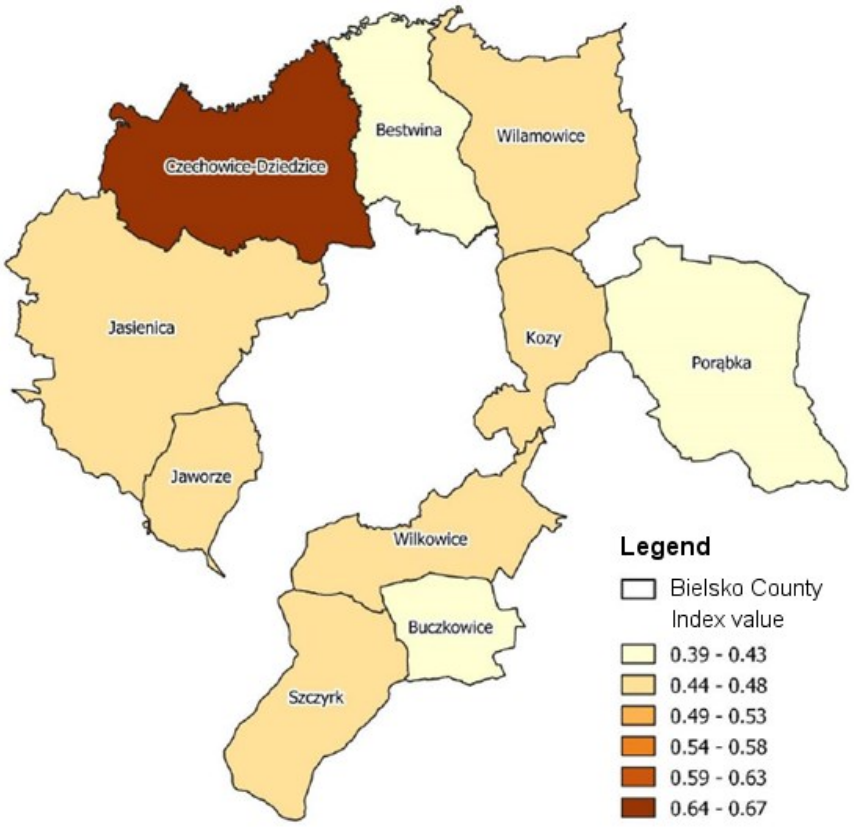

Figure 4. Typology of communes of the Bielsko County due to the value of the index of general conditions for the development of tourism. Source: own study.

The lowest tourist attractiveness was recorded in the case of the municipalities of Porąbka (0.40), Bestwina (0.41), and Buczkowice (0.39). This is due to, among others, due to poorly developed service infrastructure, as well as a relatively small number of accommodation and accompanying facilities.60 people took part in the anonymous survey, of which 62% were women, and 38% were men. The largest group of respondents were people between 20 and 35 years old – 60%. The second place went to respondents between 36 and 60 years old – 30%, while 7% were people over 60 years old. 3% of respondents were in the group under 20 years old. The first question concerned the assessment of tourist and recreational attractiveness of the Bielsko County. Most respondents (94%) answered in the affirmative. Only 3% of respondents said that the Bielsko County is not attractive for tourists.

When asked which of the Bielsko County municipalities is the most attractive in terms of tourism and recreation, 41 respondents chose the Szczyrk municipality, which constituted 68% of the answers; 12 respondents (20%) chose the urban and rural commune Czechowice Dziedzice, while seven votes (12%) were cast for the rural commune Jaworze. Other municipalities were not taken into account by the respondents. In the next question, the respondents were asked to rate on a scale of 1 to 5 (where one was the lowest and five the highest) for individual elements of the tourist development of the commune they had chosen in the previous question. Three municipalities were selected in this question: Szczyrk,

Czechowice-Dziedzice, and Jaworze. As a first assessment, natural values were subjected to, among others, forests, rivers, lakes, varied terrain, climate, waterfalls, diverse and exciting fauna and flora, caves, and forms of nature protection. In the case of the Szczyrk municipality, 46% of respondents rated these assets as useful, 29% as very good, 20% as a medium, and only 5% said they were poor. In the case of the urban-rural commune Czechowice-Dziedzice, 84% of respondents rated the natural values as good or very good. None of the respondents stated that these elements are weak or very weak. Also, in the rural commune of Jawor, natural values did not receive the lowest marks. Most of them were rated as good – 42%.

Cultural values, such as museums, monuments, traditions, and cultural events, were the next assessed element. In the Szczyrk commune, they received various grades. 41% of respondents said they were right, 29% said average, while 15% assessed them as bad. Most of the respondents expressed a positive opinion about cultural values in the commune of Czechowice-Dziedzice.

Transport accessibility and road conditions in the Szczyrk commune were rated negatively by the respondents. Average grade prevailed – 46% and poor class – 32%, Only 15% of respondents gave an excellent grade. In the commune of Czechowice-Dziedzice the opposite situation was noted than in the municipality of Szczyrk. Transport accessibility and road condition were rated very high there. Half of the respondents rated this element as very good, and 33% as good.

The catering base in the Szczyrk commune has been highly rated. Only 12% of respondents said they were at an average level. Technical infrastructure, including water and sewage infrastructure, was assessed similarly. The next question concerned the assessment of the Bielsko County promotion on a scale of 1 to 5, where one meant very poor and five very good. 44% of respondents rated promotional activities as insufficient. The last question: "What do you think should be changed/improved in municipalities to make them more attractive to tourists?" was open. The most responses – 42% concerning improvement of roads and communication, in particular as regards the improvement of access to Szczyrk. 25% of respondents were for improving the promotion of both individual municipalities and the entire region, and 13% said that more bicycles, walking, and educational paths should be created, as well as places where you can relax in the fresh air. 8% of respondents indicated the need to increase the number of parking spaces. Individual statements concerned environmental issues, improving air quality, using EU funds, changing the way people are informed about cultural events, expanding the accommodation and catering base, and creating a cycling path that will connect all municipalities in the Bielsko Poviat.

5. Discussion

In the study of Pukowiec and Kurda (2013), an analysis of the tourist and recreational attractiveness of the communes of the Lublin County (Śląskie Voivodeship) was carried out using a multidimensional comparative analysis – synthetic measures. The study included features that were divided into three influenza: natural and cultural values, tourist development, and transport accessibility. The obtained results allowed to state that the most attractive commune in terms of tourism was the municipal commune of Lubliniec, whose index value was 0.67. It was mainly due to developed tourist infrastructure (service outlets, tourist routes, gastronomic bases). The rural commune of Kkujecin also received a high rating in the area of which a lot of forests, meadows, and pastures were noted, as well as numerous monuments and tourist routes. A precise analogy can be seen in the studies of the Bielsko county, where the best conditions for the development of tourism were recorded in the case of the urban-rural commune Czechowice-Dziedzice (the value of the measure is also equal to 0.67). This was mainly due to a well-developed service infrastructure and catering base. The second place was occupied by the rural commune of Jasienica, which, like the commune of Kkujecin, has the most significant number of monuments in the county. It also has the longest bicycle path, with a total of about 147 km and the largest share of agricultural land.

Chojnacka-Ożga and Gabryszewska (2011) carried out tourist valorization of the natural environment of the Inowłódź commune, based on the quantitative and donation method. The research results confirmed that the collective has areas with very high and high tourist attractiveness. In the adopted research model In Bielsko County, the municipality with the highest tourist attractiveness in the Bielsko County is the Szczyrk municipality, which has numerous tourist routes and a well-developed catering and accommodation base. According to Połuch and Marx (2012), areas that are allocated for tourist purposes should be diversified in terms of natural and cultural values. Also, they should have good transport accessibility and tourist facilities. All these elements determine the tourist attractiveness of a given region. The natural and cultural valorization of the Reszel commune, presented by the authors, showed that this area had tourist potential, but it was not fully utilized. In turn, Hakuć-Błażowska and co-authors (2018) showed that tourism development opportunities, especially in rural areas, depend primarily on natural and cultural values affecting the attractiveness of the area. An equally significant impact on the volume and distribution of tourist traffic is the transport accessibility of the area and the presence of even essential tourist infrastructure elements.

6. Summary

Valorization carried out using the Gołembski synthetic metering method allowed to determine how the general conditions for the development of tourism are shaped in individual communes of the Bielsko County. Also, it identified the most attractive municipalities in terms of tourism and investment, presenting their advantages, and also showed why the other cities are less attractive. Surveys allowed to find out the opinions of residents on the state of tourism development and tourist values of the County.The study showed that the Bielsko County has a great tourist potential. It has been demonstrated that the commune with the most significant tourist potential with a substantial advantage over the remaining municipalities in the urban-rural commune Czechowice-Dziedzice. It was determined by natural, economic, investment, and infrastructural conditions. The tourist potential of the Czechowice-Dziedzice commune, however, has not been confirmed in surveys, where respondents indicated the Szczyrk commune as the most attractive tourist destination in the Bielsko County. The municipalities of Jasienica, Jaworze, and Wilkowice have high natural and cultural values, but at the same time, they have a relatively poorly developed gastronomic and accommodation base. Especially the commune of Jaworze, which has the most significant number of natural monuments and a lot of cultural events, moreover, is the commune with the highest indicator of technical infrastructure. At the same time, it is poorly accessible in terms of communication (no voivodship, national roads, and railway station). The Jasienica commune took the second position in the general conditioning of tourism development, and the Wilkowice commune the third. Also, the municipality of Jasienica has bike paths that are the most kilometers in comparison to other communes and poor transport accessibility.

In contrast, Wilkowice has one of the lower values of the indicator for the commune's finance department. According to respondents, Bielsko County is attractive in terms of tourism and recreation. Still, its weak point is the insufficient promotion and poorly developed gastronomic and accommodation base in all communes, except for the Szczyrk commune. Research has also shown that the results of surveys do not always coincide with the results of the multidimensional comparative analysis made using the synthetic measures method, so it is worth using various research methods to assess the attractiveness of the tourist and recreational space of a given region.

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