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Study into the tourist attractiveness of Lubuskie Province municipalities using the aggregate measure

Abstract

Object: A special feature of contemporary economy is that processes occurring within it are characterised by growing dynamics and spatial diversification. One of the important phenomena in the development of each region or municipality is the tourist traffic taking place in their territory. Benefits associated with it include: improvement of living standards, increase in demand and income, reduced unemployment rate, development of infrastructure, sustenance of local crafts. Tourism is thus becoming an important way to revive the regional and local economy.

Methods: In this paper, the Lubuskie Province was subjected to statistical research in this respect.

Findings: A general characteristic of tourism development in the region was prepared and an attempt was made to assess the tourist attractiveness of municipalities using an aggregate measure with the median value.

Conclusions: The ranking of municipalities obtained on the basis of this measure was compared with the rankings obtained for other commonly used aggregate measures. The study accounts for data obtained from various sources for the year 2018.

Keywords: tourist attractiveness, aggregate measure with median, Lubuskie Province, local development.

Introduction

From the point of view of a regional economy, region means a set of areas bordering on each other, distinguished in terms of similar criteria in relation to adjacent areas (Korenik, 2011). Region understood this way is an important subject of research; in tourism sciences, too. Considering the place that tourism takes in the region's economy, it should be considered a specialization, i.e. one of the socio-economic roles fulfilled there. In line with the definition, it is understood as an activity directed at providing services to tourists that the region fulfils in the economic system, as well as the effects and consequences of this activity exerted upon the spatial structure and economic life of the region (Kruczek, Zmyślony, 2010). Therefore, tourism can be treated as a socio-economic function of the region. The theory of economic base holds that it is an exogenous supra-regional function that co-determines the strength of the region and conditions of its development. It also points out that for many regions tourism has become an important factor that has contributed to their development and better economic functioning (Panasiuk, 2007). Benefits resulting from the fall in unemployment, infrastructure development and income increase mean that more and more regions can see opportunities related to tourism in their development.

The terms directly related to the development of tourism are tourist traffic and tourist attractiveness. Tourist traffic is defined as a social phenomenon involving the spatial movement of people into areas and to tourist destinations (Kornak, 1997). The main factors that caused mass tourism to take shape are the growing level of income of the population and the increasing amount of leisure time devoted to tourism. The increase in demand for various types of tourist service is caused by both the growing number of its participants and structural changes in tourist traffic (forms of tourist consumption, traffic structure and demand, travel range, spatial range).

On the other hand, tourist attractiveness is understood as the property of an area or town resulting from a set of natural or non-natural features that arouse interest and attract tourists (Kurek, 2007). In traditional terms, all objects of interest to tourists are considered to be "tourist attractions". Currently, due to the popularization of tourism and the increase in the role of culture in its development, this concept has been expanded to include cultural and sporting events, entertainment and other. It also takes into account the level of accommodation prices, food standards, tourist facilities and technical infrastructure (Halemba, Mrozowicz, 2013). Factors such as: products of local artists, regional cuisine, attitude of local people towards tourists, tourist information and promotion, favourable communication location also play a role.

The literature points out to the following values that define the tourist attractiveness of a region: natural, recreational, cultural and specialist (Ibidem). Natural ones come from: national parks, landscape parks, zoos,

botanical gardens, historic parks, viewpoints, gorges, caves and lakes. Leisure ones that allow for regeneration and rest are: low urbanization, clean air, leisure and recreation centres, healing properties of waters, availability of recreation areas and conditions for active leisure. Cultural values include monuments of architecture and construction created in the process of historical development, artefacts of folk material culture and non-material culture works such as folklore, rituals and traditions. Specialist values are, in turn, components and qualities of the natural environment that enable specialized tourism, in particular: sailing, canoeing, riding and hunting.

The Lubuskie Province Development Strategy 2020 states that in light of the natural and cultural values existing in the province, tourism can and should become an important pillar of socio-economic development (Zarząd Województwa, 2012). Referring to the above statement, the aim of the study was to prepare general characteristics of its development in the region and to make an attempt to assess the tourist attractiveness of municipalities using an aggregate measure with the median. The research conducted accounted for statistical data from resources kept by various institutions. The data refer to the 2018 conditions.

Method

According to the theory of tourism, in order to examine the tourist attractiveness of a given municipality or district, the value of resources that shape it should be assessed (Halemba, Mrozowicz, 2013). Statistically speaking, a number of methods can be discerned that allow to assess the tourist potential of the studied area. These include the following methods: Hellwig's development pattern (Hellwig, 1968), Cieślak (Cieślak, 1974), rank method (Siedlecka, 1999), zero unitarization (Kukuła, 2000), Walesiak's (Walesiak, 2006).

An interesting proposition that can also be used to assess the tourist attractiveness of municipalities is the Strahl method (Strahl, 2001, 2006). The essence of this method is to determine the aggregate measure, which in its construction uses the median and standard deviation. Aggregate measures built on the principle of averaging variables have a disadvantage, which is the sensitivity of the average to extreme values, and especially to high values of the variable. The use of median in the construction of aggregate measures means that extreme values do not affect the average level of the variable. The standard deviation takes into account the effect of variation in the variable values of a given object on the level of the measure obtained.

The construction of an aggregate measure with a median is as follows:

1. In the set of variables $\{x_1, x_2, \ldots, x_m\}$ that characterize the examined municipalities $\{P_1, P_2, \ldots, P_K\}$, the following are distinguished: stimulants, destimulants and nominants. Numerical values are arranged in the matrix:

$$\mathbf{X} = \left[x_{kj} \right] = \begin{bmatrix} x_{11} & x_{12} & \ldots & x_{1m} \\ \vdots & \vdots & \ddots & \vdots \\ x_{K1} & x_{K2} & \ldots & x_{Km} \end{bmatrix}, \tag{1}$$

where: x_{kj} — the value of the j-variable for the k-th municipality.

2. The data are then normalised. The stimulants are normalised by the formula:

$$z_{kj} = \frac{x_{kj}}{\max_k \{x_{kj}\}}. \tag{2}$$

The destimulants are transferred as:

$$z_{kj} = \frac{\min_k \{x_{kj}\}}{x_{kj}}. \tag{3}$$

In the case of the nominants the relations are as follows:

$$z_{kj} = \begin{cases} 1 & \text{for } x_{kj} = N_j \\ \dfrac{x_{kj}}{N_j} - 1 & \text{for } x_{kj} < N_j \\ \dfrac{N_j}{x_{kj}} - 1 & \text{for } x_{kj} > N_j \end{cases}, \tag{4}$$

where: N_j — a nominal value of the j-th nominant.

The values of the variables after being normalised for the matrix $\mathbf{Z} = \left[z_{kj} \right]$.

3. For each municipality a median and standard deviation are calculated. With that in view in each row of the matrix **Z** the values of the variables are ordered in a decreasing manner $z_1, z_2, \ldots, z_m$. The median is determined as follows:

$$\mathrm{me}_k = \begin{cases} z_{k\left(\frac{m+1}{2}\right)} & \text{for an uneven } m \\ \dfrac{z_{k\left(\frac{m}{2}\right)} + z_{k\left(\frac{m}{2}+1\right)}}{2} & \text{for an even } m \end{cases}, \tag{5}$$

where: $\frac{m+1}{2}$, $\frac{m}{2}$, $\frac{m}{2}+1$ is the value of the consecutively numbered variable, while *m* is the number of variables.

Standard deviation and arithmetical mean are calculated in this manner:

$$\mathrm{s}_k = \sqrt{\frac{1}{m}\sum_{j=1}^{m}\left(z_{kj} - \overline{z}_k\right)^2} \text{ and } \overline{\mathrm{z}}_k = \frac{\sum_{j=1}^{m} z_{kj}}{m}. \tag{6}$$

4. For each municipality $P_k \left(k = 1, \ldots, K\right)$ the aggregate measure is calculated by the formula:

$$\omega_k = \mathrm{me}_k \left(1 - \mathrm{s}_k\right), \tag{7}$$

where: ω_k is the level of measure for the *k*-th municipality, me_k — median from the value of *j*-variables for the *k*-th municipality, s_k — standard deviation from the value of *j*-variables for the *k*-th municipality.

The aggregate measure values obtained are normalized and meet the relation $\omega_k < 1$. Measurement values closer to one testify to a higher level of development in the P_k municipality. The measure prefers municipalities that have higher median values of the features describing them and their smaller diversity, expressed by a standard deviation.

To compare rankings obtained using different methods, Kendall tau or Spearman's rank correlation coefficients can be used. These measures determine the compatibility of rankings on the ordinal scale (Walesiak, 1993, 2006).

Tourism in Lubuskie Province against the background of other provinces

Situated on the Polish-German border, Lubuskie Province is one of the smaller regions in the country. The province has the area of 13,988 km^2, which constitutes 4.47 % of Poland (US Zielona Góra, 2019). The region has a population of 1,014,548 and a population density of 72.5 people per km^2. The number of employed in the province for 2018 is 357,724 people. The sections directly related to tourism, such as accommodation and catering, with culture, entertainment and leisure accompanying the former, indicate that 2.72 % of the inhabitants is actively employed. GDP per capita of the province is at the level of PLN 45,317. In this respect, it ranks 9th among all regions in the country.

The province has its tourist values because it is a valuable natural area. A characteristic feature of the region is the largest afforestation in Poland. The share of forests is 49.3 % of the total area of the province. Protected areas in the region include: 2 national parks, 8 landscape parks and 64 nature reserves (Urząd Marszałkowski, 2019). It chiefly is woodland and lakesides and riversides that show a variety in the plant, fowl and animal composition. The major watercourses are the Odra, Warta, Noteć, Nysa Łużycka, Obra and Bóbr rivers. It has to be stressed out that the region is often called the Five-Hundred-Lakeland. The total area of the lakes is 13.4 hectare while Lake Sławskie has the area of 828 hectare.

These, however aside, as it is the bed and breakfast facilities and the number of visitors that show that the region is developing. In the Province of Lubuskie some 300 B&B facilities are available. To be more specific, these are: 66 hotels, 14 motels, 13 boarding houses, 43 other hotel facilities, 9 hostels, 31 holiday centres and youth camps, 22 training and leisure centres, 45 offering agritourism lodgings and guest rooms, 21 complexes of tourist houses, 13 campsites and field camping sites, 23 otherwise not classified. The database has 18,512 beds, of which 11 083 are all-year beds. In total, 687,751 tourists used them in 2018. They were provided with 1,429,521 nights, including 327,190 nights for foreign tourists.

Indicators of tourism development in relative terms compared to other provinces are presented in table 1.

Table 1. Indicators of tourism development in Lubuskie Province as compared to other provinces for 2018

	Lubuskie Province	Min	Max	Rank
Number of tourist facilities per 100 km^2	2.14	1.39	9.95	9
Number of beds per 100 inhabitants	1.82	0.95	8.10	6
Tourists using accommodation per 100 inhabitants	67.7	42.4	178.6	7
Number of nights spent per 100 inhabitants	140.8	90.0	889.8	10
Average number of nights per one user	2.08	1.76	4.98	12
Occupancy rate of beds in %	29.8	29.2	51.6	15
Number of nights spent for foreign tourists per 100 inhabitants	32.2	8.48	225.1	6
Source — own work based on (GUS, 2019)				

In Lubuskie there are 2.14 accommodation facilities per 100 km^2, which gives it 9th place among other regions in the country. However, the province has some opportunities for tourism development. This is indicated, for example, by the Baretje tourist function indicator. He informs that due to the number of beds, which is 1.82 per 100 inhabitants, the region occupies even 6th place in the country. The position of the province is also relatively high, taking into account the intensity of Schneider tourism. The number of users of accommodation reaches 67.7 per 100 inhabitants and in this respect it occupies the 7th position. The province performs worse in light of the Charvat saturation index. The number of overnight stays is at the level of 140.8 per 100 inhabitants, which means that it is only in the 10th position. The average number of nights per tourist is also low. It is 2.08 in the region, while in other provinces it reaches up to 4.98 nights. This results in the fact that the region has a low level of utilization of bed places. It amounts to 29.8 % and it is last but one level among all provinces.

On the other hand, the border location and natural values are a chance for the development of tourism in Lubuskie, next to the accommodation base it possesses. This can be demonstrated by the number of overnight stays provided to foreign tourists. It amounts to 32.2 per 100 inhabitants in the region, being the 6th value of the indicator in the country. Tourists from Germany (30.6 %) and Ukraine (24.8 %) dominate among them. While, the virtues of forests and numerous lakes can promote the development of various forms of recreational and leisure tourism, as well as active tourism: water, cycling, hiking, Nordic walking, riding, hunting, fishing. Among the most important tourist attractions of the region are: Kayaking Trips of Lubrza, Lubniewickie Zander Festival, Festival Pol'and Rock in Kostrzyn nad Odrą, Joanite Fair in Łagów, the underground of Międzyrzecki Fortified Region, Ark of Mużaków Geopark (LOTUR, 2019).

Tourist Attractiveness of Province Municipalities

The tourist attractiveness of a given area and municipality results from its natural and anthropogenic values (Gołębski, 1999). Important in this respect are: the existing hotel base, catering facilities, entertainment offer and existing monuments in a given municipality. The condition of the natural environment and activities related to its protection play an important role. The image of the tourist product of the municipality and the role of marketing in its promotion are also significant.

In order to take into account the above-mentioned aspects, when assessing the tourist attractiveness of municipalities of the Lubuskie Province, an attempt was made to consider the widest possible set of diagnostic variables. To complete the task data from the Local Data Bank kept by the Chief Statistical Office (GUS, 2019), Chief Land Survey and Cartography Office (GUGiK, 2019) and Lubuskie Province Historic Preservation Officer (*Rejestr zabytków,* 2019) were derived. Initially, 29 variables were selected for which data for the year 2018 were available. Out of this set, with substantive criteria applied, 11 variables were selected for the construction of the aggregate measure. This set ultimately consists (cf. Balińska*,* 2016):

x_1 — woodland share in % of the total area of the municipality,

x_2 — area with special natural values in % of the municipality area,

x_3 — number of lakes, ponds, and man-made lakes per each 100 km^2 of the municipality area,

x_4 — number of tourist accommodation establishments per 10,000 inhabitants,

x_5 — number of beds per 100 inhabitants,

x_6 — number of foreign tourists per 100 inhabitants,

x_7 — number of overnight stays provided to foreign tourists per 100 inhabitants,

x_8 — number of businesses active in the catering services (Section 56) per 100 inhabitants,

x_9 — number of historic places per 100 km^2 of the area of the municipality,

x_{10} — length of bicycle paths per 100 km^2 of the area of the municipality,

x_{11} — expenditure on tourism, culture and protection of the national heritage in % of total expenditure out of the municipality purse.

Detailed analysis indicates a high diversity of municipalities due to the considered diagnostic variables. Coefficients of variation determined for them range from 35.1 % to 399.7 %. They visibly exceed the minimal level of variability which usually is 10.0 %.

An aggregate measure with the median Strahl was used to assess the synthetic tourist attractiveness of the region's municipalities. According to the test procedure, the variables were normalized. Since all of the variables are stimulants, a quotient transformation with a base equal to the maximum value was used for this purpose. The ranking of tourist attractiveness of municipalities is presented in table 2.

Table 2. Ranking of tourist attractiveness of Lubuskie Province municipalities for the year 2018 obtained using an aggregate measure with a median

No.	Municipality	ω_k	No.	Municipality	ω_k	No.	Municipality	ω_k
1.	Łagów	0.453	29.	Dąbie	0.083	57.	Santok	0.026
2.	Lubniewice	0.304	30.	Dobiegniew	0.078	58.	Deszczno	0.025
3.	Pszczew	0.290	31.	Rzepin	0.077	59.	Czerwieńsk	0.024
4.	Ośno Lubuskie	0.231		Zabór	0.077		Krosno Odrzańskie	0.024
5.	Sława	0.221	33.	Sulęcin	0.073	61.	Nowogród Bobrzański	0.023
6.	Łęknica	0.195	34.	Międzyrzecz	0.071	62.	Żary rural	0.018
7.	Torzym	0.194	35.	Tuplice	0.067	63.	Przewóz	0.017
8.	Skąpe	0.179	36.	Gubin	0.064	64.	Małomice	0.015
9.	Słubice	0.177		Iłowa	0.064	65.	Świdnica	0.011
10.	Bobrowice	0.157	38.	Witnica	0.056		Stare Kurowo	0.011
11.	Drezdenko	0.143	39.	Otyń	0.055	67.	Żagań rural	0.010
12.	Przytoczna	0.133	40.	Zielona Góra	0.054		Bojadła	0.010
13.	Trzciel	0.124	41.	Kostrzyn nad Odrą	0.053		Szlichtyngowa	0.010
14.	Bledzew	0.120		Żary	0.053	70.	Bogdaniec	0.009
15.	Kolsko	0.119	43.	Nowe Miasteczko	0.052	71.	Zwierzyn	0.006
16.	Nowa Sól	0.114		Krzeszyce	0.052	72.	Jasień	0.004
17.	Słońsk	0.110	45.	Gorzów Wlkp.	0.047	73.	Maszewo	0.003
18.	Kargowa	0.109	46.	Żagań	0.046		Trzebiechów	0.003
19.	Bytnica	0.108	47.	Skwierzyna	0.045		Siedlisko	0.003
20.	Strzelce Krajeńskie	0.099	48.	Nowa Sól rural	0.043	76.	Niegosławice	0.002
21.	Bytom Odrzański	0.095	49.	Sulechów	0.039		Kożuchów	0.002
22.	Świebodzin	0.092		Lubsko	0.039	78.	Szczaniec	0.000
23.	Brody	0.091		Zbąszynek	0.039		Gozdnica	0.000
	Wschowa	0.091	52.	Cybinka	0.035		Brzeźnica	0.000
25.	Górzyca	0.090	53.	Trzebiel	0.034		Wymiarki	0.000
26.	Lubrza	0.089	54.	Szprotawa	0.032		Lipinki Łużyckie	0.000
27.	Kłodawa	0.087	55.	Lubiszyn	0.030	X	X	X
28.	Babimost	0.084		Gubin rural	0.030	X	X	X

Source — own calculations

The ranking prepared on the basis of an aggregate measure with the median was then compared with the rankings obtained on the basis of other commonly used aggregate measures. Of these, measures built on the basis of methods: rank (w_1), zero unitarisation (w_2), Cieślak with normalization against standard deviation (w_3), Hellwig's development pattern with normalization through standardization (w_4) were taken into account. To compare the rankings, the Spearman's rank correlation coefficient was used, the values of which are summarized in table 3.

Table 3. Spearman's rank correlation coefficient for the ranking obtained using the aggregate measure with median and rankings obtained by other methods

	w_1	w_2	w_3	w_4
Aggregate measure with the median	0.851	0.765	0.793	0.837

Source — own calculations

By splitting the range of the values of aggregate measure with the median into equal-span ranges, four groups of municipalities with a similar level of tourist attractiveness were identified. The first singled out group within the measure bracket from 0.345 to 0.460 is made of the municipality of Łagów. The value obtained in its case is 0.453. Tourst-wise it is the most attractive municipality in the region. The second group includes

3 municipalities that have values from 0.230 to 0.345. These are the municipalities of Ośno Lubuskie, Pszczew and Lubniewice. As for regional conditions, they are characterized by significant tourist attraction. Eleven municipalities belong to the third group with measurement values from 0.115 to 0.230. This group is made up of the following municipalities: Kolsko, Bledzew, Trzciel, Przytoczna, Drezdenko, Bobrowice, Słubice, Skąpe, Torzym, Łęknica and Sława. For tourists these are medium-attractive municipalities. The remaining group of 67 municipalities belongs to the fourth group. The values of measure are in their case from 0.000 to 0.115. These municipalities are not very attractive for tourists. The arithmetic mean of the aggregate measure determined is 0.074, standard deviation 0.078 and the coefficient of variation 105.8 %.

The relatively high values of Spearman's rank correlation coefficients indicate that the aggregate measure with median gives a comparable order of municipalities vis-à-vis those that could be obtained by other methods considered. The resulting tourist attractiveness ranking is most similar to the ranking obtained by the rank method (w_1), with the value of the coefficient reaching 0.851. It differs most from the ranking obtained by the method of zeroed unitarisation (w_2). In this case, the Spearman's coefficient is 0.765. At the same time, generally, a significant correspondence holds for municipalities occupying more top-wise positions in the rankings, and any discrepancies will mainly be placed in lower positions, especially those between which there are small differences in the level of aggregate measure used.

Figure 1 shows the spatial distribution of the aggregate measure with the median.

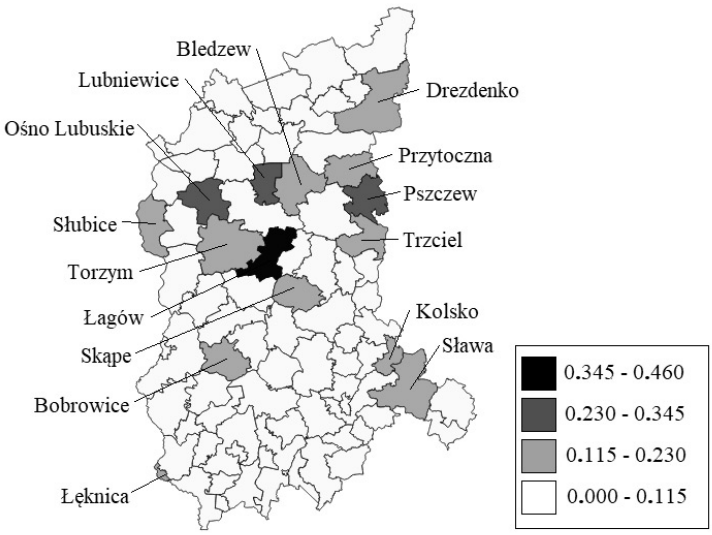

Figure 1. Municipalities as per level of tourist attractiveness determined using an aggregate measure with the median for 2018

Source — own study.

Generally, municipalities of an average or higher level of tourist attractiveness are located in the centre and at the eastern border of the region. The first cluster is especially interesting. It comprises the municipalities of Lubniewice, Bledzew, Ośno Lubuskie, Torzym, Łagów, Skąpe and Bobrowice. It seems that in the situation of a short stay of tourists in the region, the creation of a joint complementary offer of these municipalities could contribute to the tourists' interest in extending their stay there. This could be facilitated by the construction of a cycle path network connecting these municipalities. Owing to the proximity of border crossings at Słubice, Kostrzyn on the Oder and Łęknica the path could be a factor that would additionally stimulate tourism from Germany. Alternatively, state eastern border adjacent municipalities could also be connected by bicycle paths: Sława, Kolsko, Trzciel, Pszczew, Przytoczna and Drezdenko.

Conclusions

In the programme documents of Lubuskie Province, tourism is branded one of the potential pillars of the socio-economic development of the region. However, the outcome of the study shows that despite the region's assets (large afforestation, numerous lakes, nature reserves, accommodation facilities) its potential is not fully utilized. For example, the number of nights spent in the region is quite low compared to other provinces. And although the sheer number of tourists visiting it is relatively high, this does not translate into the degree of use of the existing accommodation base.

The province itself is also diversified to a large extent as regards tourist attractiveness of the municipalities. This is indicated by the value of the coefficient of variation of the aggregate measure determined by the median. In line with this measure, a relatively high level of tourist attractiveness is shown by the municipalities located in the centre of the region: Łagów, Lubniewice, Ośno Lubuskie, Bledzew, Torzym, Skąpe and Bobrowice. Other municipalities include: Pszczew, Sława, Kolsko, Trzciel, Przytoczna, Drezdenko, Słubice and Łęknica. In the light of the value of the Spearman's rank correlation coefficient, the aggregate measure with median orders municipalities with respect to their level of their tourist attractiveness to a large extent comparable to values that could be obtained by other methods considered in the study.

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П. Щучински

Любуш облысының муниципалдық құрылымдарының туристік тартымдылығын агрегацияланған көрсеткішті пайдалана отырып зерттеу

Аңдатпа

Мақсаты: қазіргі экономиканың ерекшелігі, онда болып жатқан үрдістер өсіп келе жатқан динамика мен кеңістіктікті әртараптандырумен сипатталады. Әр өңірдің немесе муниципалдық құрылымның дамуындағы маңызды құбылыстардың бірі — олардың аумағында болып жатқан туристік ағым. Осыған байланысты ұтымды тұстар мыналарды қамтиды: өмір сүру деңгейін жақсарту, сұраныс пен табыстарды арттыру, жұмыссыздық деңгейін төмендету, инфрақұрылымды дамыту, жергілікті қолөнерді қолдау. Осылайша, туризм өңірдегі және жергілікті экономиканы жандандырудың маңызды тәсілі болып табылады.

Әдісі: бұл зерттеуде Любуш өңіріне статистикалық зерттеулер жүргізілген.

Қорытынды: өңірдегі туризмді дамытудың жалпы сипаттамасы әзірленген және муниципалдық құрылымдардың туристік тартымдылығын медианалық мәні бар агрегацияланған көрсеткішті пайдалана отырып бағалауға әрекет жасалған.

Тұжырымдама: осы көрсеткіштің негізінде алынған муниципалдық құрылымдарды саралаудың басқа кең қолданылатын агрегацияланған көрсеткіштер үшін алынған саралаулармен салыстырылған. Зерттеу барысында әртүрлі дереккөздерден 2018 жылға арналған мәліметтер ескерілген.

Кілт сөздер: туристік тартымдылық, медианамен жиынтық көрсеткіш, Любуш облысы, жергілікті даму.

П. Щучински

Исследование туристической привлекательности муниципальных образований Любушской области с использованием агрегированного показателя

Аннотация

Цель: особенностью современной экономики является то, что происходящие в ней процессы характеризуются растущей динамикой и пространственной диверсификацией. Одним из важных явлений в развитии каждого региона или муниципального образования является туристический поток на их территории. Выгоды, связанные с этим, включают в себя: повышение уровня жизни, увеличение спроса и доходов, снижение уровня безработицы, развитие инфраструктуры, поддержание местных ремесел. Таким образом, туризм становится важным способом оживления региональной и местной экономики.

Методы: в данном исследовании были проведены статистические исследования в Любушской области.

Результаты: подготовлена общая характеристика развития туризма в регионе и предпринята попытка оценить туристическую привлекательность муниципальных образований с использованием агрегированного показателя с медианным значением.

Выводы: ранжирование муниципальных образований на основе этого показателя было сопоставлено с ранжированием, полученным для других широко используемых агрегированных показателей. В исследовании учитываются данные из различных источников за 2018 год.

Ключевые слова: туристическая привлекательность, совокупный показатель с медианой, Любушская область, местное развитие.

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