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SPATIAL DIVERSIFICATION OF FOREIGN TOURIST TRAFFIC IN POLAND

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Summary

The article aims to assess the territorial distribution of foreign tourist traffic in Poland and identification of provinces similar with respect to the inbound tourism structure considering the tourists' country of origin. The analysis used well-known methods of taxonomic analysis.

Foreign tourists' arrivals to Poland are to a great extent spatially diversified. The leading provinces concerning the number of accommodated tourists are Mazowieckie and Małopolskie. The next ones, in view of the intensity of the analysed phenomenon, are the provinces of the western wall, except Lubuskie. The provinces situated mainly on the eastern wall proved to be the least numerously visited by foreign tourists.

It should be also noticed that German tourists were particularly fond of the Zachodniopomorskie and Dolnośląskie provinces. Tourists from the other analyzed countries use bed places mostly in the area of the Mazowieckie and Malopolskie provinces. Russian, Ukrainian and Lithuanian tourists provide an exception, since they also travel to Podkarpackie (Ukraine), Lubuskie (Russia and Lithuania) and Dolnośląskie provinces (Russia).

Obtained classification of the provinces allowed to divide them into six groups, characterized by a similar structure of foreign tourists using sleeping facilities, but also similar in view of intensity of inbound tourism. The presented results reveal a considerable degree of generality, but still they may provide an example of a simple instrument for conducting similar but more detailed studies adjusted to specific needs.

Key words: tourist traffic, foreign tourists

INTRODUCTION

Certain stagnation can be observed on tourist market in Poland in recent years. It matches some general trends in the development of tourist traffic in the world and concerns both domestic and foreign tourism, as well as the imports and exports of tourist products. The data accumulated by the Main Statistical Office (GUS) and Institute of Tourism unanimously indicate this situation.

While not investigating the cause of such trend forming in tourism, the presented paper focuses on inbound tourism in Poland, considering a tourist's country of origin and province in which they are accommodated. Analysis of spatial diversification of tourist traffic in Poland uses secondary data supplied by GUS [Local Databank].

The article aims at assessment of foreign tourist traffic territorial distribution in Poland and identification of provinces similar regarding the structure of inbound tourism considering tourists' country of origin. The method of three means was used in the analysis to indicate provinces similar with reference to density of tourist traffic, whereas classification of provinces according to the structure of arrivals to Poland was done by means of J. H. Ward's method.

CHARACTERISTICS OF ARRIVALS TO POLAND IN 2009

Data describing the number of foreign tourists using bed places in collective tourist accommodation establishments in Poland in 2009 indicate a decline in value as compared with the previous year, however the declining tendency started in 2008. Analogous data considering administrative division of Poland into provinces presented in Table 1 show that in some provinces a decreased number of accommodated foreign tourists was registered already since 2005, i.e. much earlier than the results from a general tendency in Poland. Such situation had place in the Wielkopolskie (2005) and Zachodniopomorskie, Kujawsko-pomorskie, Pomorskie and Warmińsko-mazurskie (2006) provinces.

Foreign tourists' arrivals in Poland are significantly diversified in space. Division into provinces demonstrates not only differences in the dynamics of the studied phenomenon, but also, which is even more pronounced, in its range. Disproportions in the number of foreign tourists between the most and the least frequently visited province are clear: in 2009 over 810 thousand foreign tourists bed places were registered in the Małopolskie province, whereas in Świętokrzyskie only about 23.5 thousand, i.e., 34.5 times less (Fig.1).

Table 1. Index of changes (previous year =100) of number of foreign tourists using bed places in Poland per provinces in 2000-2009

Province	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Łódzkie	96.6	106.5	105.5	98.5	125.5	104.1	113.5	111.5	94.6	100.1
Mazowieckie	104.3	102.6	92.8	105.0	117.9	103.7	98.3	102.1	101.4	99.3
Małopolskie	93.4	100.5	103.6	104.9	131.0	122.6	105.1	104.7	84.6	97.8
Śląskie	92.8	89.3	92.0	111.1	130.6	134.1	104.0	99.6	95.2	91.1
Lubelskie	85.5	94.2	94.2	107.2	98.1	102.1	108.3	97.8	83.6	97.1
Podkarpackie	68.7	87.5	99.0	84.8	98.8	100.4	103.1	103.3	94.8	100.3
Podlaskie	77.6	103.4	103.5	103.1	89.5	108.8	103.5	102.2	75.5	100.2
Świętokrzyskie	98.9	105.3	111.0	103.4	113.6	75.4	99.2	121.7	81.5	95.1
Lubuskie	108.1	107.6	114.0	86.4	121.4	99.2	108.9	106.9	109.7	77.2
Wielkopolskie	94.9	100.1	96.0	115.2	105.9	99.8	99.2	93.4	104.0	94.6
Zachodniopo-morskie	102.9	96.4	107.8	112.8	127.5	110.8	89.2	97.0	92.3	105.4
Dolnośląskie	94.2	108.5	101.6	115.5	116.6	108.7	103.4	104.3	88.2	81.5
Opolskie	73.8	98.9	89.2	106.9	120.9	93.6	100.6	110.1	95.4	88.7
Kujawsko-po-morskie	74.4	108.4	88.9	105.1	116.8	109.5	98.4	98.2	92.3	84.4
Pomorskie	97.3	104.3	99.7	104.8	111.0	107.8	97.6	98.4	87.1	103.7
Warmińsko-ma-zurskie	133.5	101.8	103.4	97.5	108.4	101.1	85.1	97.0	85.9	96.2
Poland total	96.7	101.1	99.8	105.8	118.1	109.5	100.1	101.7	92.2	95.4

Source: Author's own elaboration on the basis of GUS data(www.stat.gov.pl).

Source: Author's own studies on the basis of GUS data

Figure 1. Number of tourists (in M) using bed places in 2009 in Poland by provinces

The provinces were classified to appropriate groups according to the number of accommodated foreign tourists, using the method of three means [Nowak E., 1990] which makes possible classification of the analysed units on the basis of a single variable value (Fig.1). Considering the discussed indicator, the leading provinces are: Mazowieckie and Małopolskie (which were classified to the first group using the three-means method; the group is characterized by the highest values of the discussed indicator). The next, with reference to the intensity of the analyzed phenomenon, were placed the provinces of the western part of Poland, except Lubuskie (the second group was characterized by high, but not the highest values of the variable). The third group (characterized by below the average, but not the lowest values of the variable) comprised the Śląskie, Łódzkie and Warmińsko-mazurskie provinces. Provinces situated in the eastern part of Poland (the fourth group identified by means of the three-means method) proved the least numerously visited by foreign tourists.

RECEPTION PROFILE OF POLAND BY PROVINCES

Spatial disproportions between individual provinces concerning the number of foreign tourists using bed places is more pronounced when country of

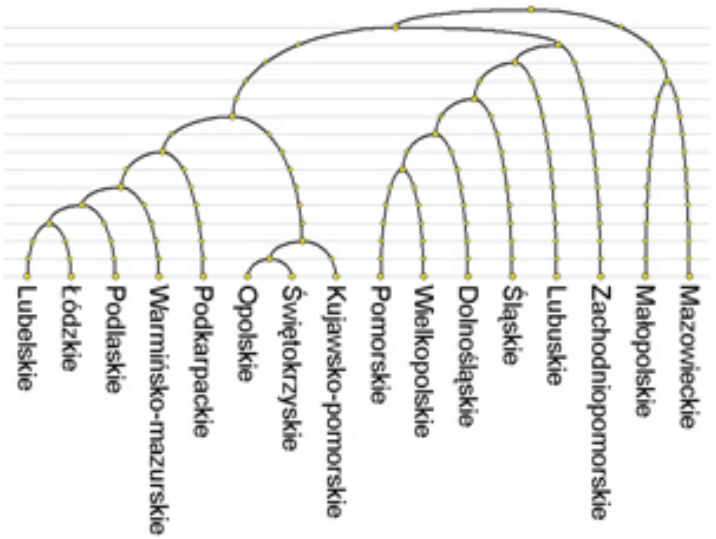
origin is taken into consideration. Classification of provinces in respect of the structure of accommodated foreign tourists and considering the country of origin is conducted later in the paper.

For the sake of classification, analyzed were only the countries from which over 100 thousand tourists came to Poland and used bed places. These were the following countries (ordered according to the number of tourists visiting Poland): Germany (1126.6 thousand), Great Britain (340.5 thousand), Italy (180.4 thousand), France (174.0 thousand), Russia (161.4 thousand), the United States of America (140.4 thousand), the Ukraine (125.7 thousand), Spain (112.8 thousand), Sweden (108.9 thousand), Lithuania (102.0 thousand) and the Netherlands (101.0 thousand). Thus, the established structure will reflect only the tourists arriving from the indicated countries.

In Table 2 individual provinces were assigned to one of the four groups identified using the method of three means, taking into consideration the country of origin of accommodated tourist. The countries were listed in a sequence beginning from the decreasing number of tourists using bed places in Poland. On the basis of Table 2 it is possible to estimate the main destinations of tourists from individual countries. Therefore, it may be noticed that German tourists preferred particularly the Zachodniopomorskie and Dolnośląskie provinces. Tourists from other analyzed countries were using accommodation establishments to the greatest extent in the area of the Mazowieckie and Malopolskie provinces. Russian, Ukrainian and Lithuanian tourists are exceptional in this respect, since they also, to a similar extent, head for the Podkarpackie (Ukrainians), Lubuskie (Russians and Lithuanians) and Dolnośląskie provinces (Russians).

Classification of provinces was conducted using J. H. Ward's method [Grabiński T., Sokołowski A., 1980]. It is a hierarchical agglomerative procedure, in which intra-group variation is of basic importance. In this method the distance between groups is defined as a module of difference between sums of squares of point distances from the centres of groups to which the points belong [Hantke W., 2003; Pociecha J. *et al*., 1983].

The distances, computed between the provinces characterized by the number of tourists from individual countries using bed places, served to construct the distance matrix. The matrix provided a basis to combine provinces into groups. The order of individual agglomeration stages, used in result of J.H. Ward's method application is presented in Figure 2.



Source: Author's own studies

Figure 2. Classification of provinces using J.H. Ward's method in respect of accommodated foreign tourists in 2009, considering their country of origin

In result of J.H. Ward's method application, four distinctive clusters of provinces were identified, characterized by a similar structure of foreign tourists' arrivals and using bed places. The result of this division was presented in Table 3.

Table 4, where the achieved result was compared with the classification obtained above using the three-means method, may be helpful in the cluster analysis performed by means of Ward's method (see Fig.1)

The compilation of the results of both classifications allowed pointing out six clusters, differing in respect of both the intensity of inbound tourist traffic and its structure considering the country of origin.

Cluster I (Małopolskie and Mazowieckie provinces) – the two-element group is composed of provinces in which the biggest number of foreign tourists using bed places was registered (the first typological group determined using the three-means method). Both provinces (particularly Mazowieckie) are most numerously visited among the other provinces by tourists of all nations, except Germans.

Table 2. Assignation of provinces to groups identified using three means method considering the country of origin of tourists using bed places in 2009.The numbers denote assignation of each province to one of four groups identified by means of the three-means method on the basis of the number of accommodated tourists arriving from individual countries. Lower number of a group denotes higher value of variable.

Province	Countries of origin											
	Total	including:										
		Germany	Great Britain	Italy	France	Russia	The United States	Ukraine	Spain	Sweden	Lithuania	The Netherlands
Łódzkie	3	3	3	3	3	3	4	3	3	3	2	3
Mazowieckie	1	2	1	1	1	1	1	1	1	1	1	1
Małopolskie	1	2	1	1	1	1	2	1	1	1	2	1
Śląskie	3	3	2	2	2	2	3	3	3	3	2	3
Lubelskie	4	4	4	4	4	3	4	2	4	4	3	4
Podkarpackie	4	4	4	4	4	4	3	1	4	4	4	4
Podlaskie	4	4	4	4	4	3	4	4	4	4	2	4
Świętokrzyskie	4	4	4	4	4	4	4	4	4	4	4	4
Lubuskie	3	3	4	4	3	1	4	2	4	4	1	3
Wielkopolskie	2	2	3	3	2	3	3	3	2	3	2	2
Zachodniopomorskie	2	1	4	4	4	3	4	4	4	2	4	3
Dolnośląskie	2	1	2	2	2	1	3	2	2	3	2	2
Opolskie	4	4	4	4	4	4	4	4	4	4	4	4
Kujawsko-pomorskie	4	3	4	4	3	4	4	4	3	4	4	4
Pomorskie	2	2	3	3	3	2	3	4	3	2	3	2
Warmińsko-mazurskie	3	2	4	4	3	2	4	4	4	3	2	4

Source: author's own studies

Table 3. Classification of provinces using J.H. Ward's method with respect to the number of foreigntourists using bed places in 2009, considering their country of origin

Cluster (number of objects)	Provinces
1 (8 prov.)	Kujawsko-Pomorskie, Lubelskie, Łódzkie, Opolskie, Podkarpackie, Podlaskie, Świętokrzyskie, Warmińsko-Mazurskie
2 (5 prov.)	Dolnośląskie, Lubuskie, Pomorskie, Śląskie, Wielkopolskie
3 (2 prov.)	Małopolskie, Mazowieckie
4 (1 prov.)	Zachodniopomorskie

Source: Author's own studies

Cluster II (Zachodniopomorskie province) – forms a single item group characterized by above the average (in comparison with the other provinces) but not the highest level concerning the number of foreign tourists using bed places (the second typological group determined using the three-means method). Sleeping facilities in Zachodniopomorskie province are preferred especially by tourists from Germany, then from Sweden, Russia and the Netherlands. Tourists from the other analyzed countries more frequently choose accommodation in other provinces.

Cluster III (Kujawsko-pomorskie, Lubelskie, Opolskie, Podkarpackie and Świętokrzyskie) – the group is composed of the provinces which in comparison with the other are the least frequently visited by foreign tourists. All these were classified, using the three-means method, to group four, therefore they are characterized by the lowest level of the analyzed indicator. The provinces making up cluster two are the most frequently visited by tourists from the Ukraine (particularly the Podkarpackie and Lubelskie provinces) and from Lithuania (especially the Podlaskie province).

Cluster IV (the Dolnośląskie, Pomorskie and Wielkopolskie provinces) comprises the provinces where above the average (but not the highest) level of the analysed indicator was registered mainly owing to a considerable number of German tourists using bed places in the area of the provinces forming the cluster. The Dolnośląskie province was also most frequently visited by tourists from Russia. Tourists from the other analysed countries rarely used bed places there; however these values were not the lowest among the other provinces.

Table 4. Clusters of provinces identified in respect of the number (using three means method) and structure (using J.H. Ward's method) of foreign tourists using bed places

Clusters identified using Ward's method	Groups identified using the three-means method			
	1	2	3	4
1	-	-	Łódzkie, Warmińsko-Mazurskie	Kujawsko-Pomorskie, Lubelskie, Opolskie, Podkarpackie, Podlaskie, Świętokrzyskie
2	-	Dolnośląskie, Pomorskie, Wielkopolskie	Lubuskie, Śląskie	-
3	Małopolskie, Mazowieckie	-	-	-
4	-	Zachodniopomorskie	-	-

"-" –no data

Source: Author's own studies

Cluster V (the Lubuskie and Śląskie provinces) – in this group the number of accommodated foreign tourists may be estimated below the average, but not the lowest (third typological group identified using the three-means method). Bed places in the provinces forming the group are most frequently chosen by tourists from Russia or Lithuania (particularly the Lubuskie province) but also by tourists from Great Britain, Italy and France (particularly the Śląskie province) – to a lesser degree in comparison with the other provinces.Cluster VI (Łódzkie and Warmińsko-Mazurskie) – both provinces composing this cluster are not frequently visited by foreign tourists. Generally, the number of foreign tourists using bed places may be estimated as below the average, although not the lowest (the third group identified using the three-means method). In his case it is difficult to determine unanimously the profile of foreign tourists considering their country of origin.

CONCLUSIONS

The analysis presented in the paper allowed determining groups of provinces similar in respect of the structure of foreign tourists using bed places, tak-

ing into consideration their country of origin. Presented results are characterized by a high degree of generality; still they may provide an example of a simple instrument for conducting similar, more detailed studies adjusted to specific needs.

The obtained results have some applicable value, they may supply information useful for the development and implementation of the tourist policy, particularly during the period of promoting Poland and her regions abroad. The provinces, aware of the profile of tourists who use bed places in their area, may initiate activities targeting tourists (also potential ones) from specific countries, whereas knowing structural similarity of provinces concerning foreigners' arrivals in Poland facilitates selection of partners (other provinces) for realization of projects.

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