

THE TRANSFORMATION OF THE TOURISM FUNCTION OF THE SELECTED JELENIA GÓRA COUNTY AREAS

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ABSTRACT | The Jelenia Góra county is located in the attractive tourist south-western part of Lower Silesia. The area includes four municipalities which can be classified as small towns, they are: Karpacz, Kowary, Piechowice and Szklarska Poręba. The paper focuses on the analysis of the functional structures transformation of these towns, with particular emphasis on the changes in the scope of their tourism functions. The research includes the size, structure and changes in the employment. The study has been made on the basis of the theory of economic base, using two indicators – the Indicator of Labor Surplus (ILS) and the Florence's Coefficient of Specialization (FCS). The research may be useful in planning the development and management of the town.

Introduction

The Jelenia Góra County comprises four town-municipalities, they are: Karpacz, Kowary, Piechowice and Szklarska Poręba. It is assumed that one of the most important sectors of the economy in the subregion is tourism which, as an important source of income for the residents and municipal budgets, has a significant impact on the development of the territorial units. It can be seen in the strategic documents of these towns as well as in the Sustainable Development Strategy of

Jelenia Góra county – the Tourism Development Program in the County of Jelenia Góra, passed by the Resolution of the County Council of 3 July 2001, that the development of tourism – recreational functions is a priority. The Karkonosze National Park is the factor having a huge impact on the development of the tourism function in the subregion. The functioning of the national park leads not only to the limitations deriving from the Act of April 16th on Nature Protection (Dz.U. No. 92, Item. 880, with amendments.), but also multi-million investments in tourist infrastructure financed both from the national and EU money.¹

The aim of the article is to analyze the transformation of the functional structures of the said towns in the years 2005–2013, with the particular emphasis on the changes in the range of tourism functions. It is worth mentioning that the present study is a continuation of the research, the results of which have been presented previously.²

Research method

The study is founded on the theory of economic base. It is one of the most popular concepts explaining the developmental processes that occur on a regional or local scale. Its primary objective is to support the development of the area with an on-export activity ie. satisfying the needs of residents of other, domestic and foreign territorial units. The most important element in stimulating economic growth, according to the concept, is the external demand for goods and services produced in a given area. Companies and sectors producing for export form the so-called economic base of the region, or the economic base of the town. The development of this base provides multiplier effects in the form of the development of the related sectors, subcontractors and the market for local and regional services.³

According to the theory, people employed in a particular town can be divided into two groups:

1. Endogenous group which consists of people working for the needs of the city and its inhabitants; hence as endogenous functions can be classified these sectors of the town economy which mainly support local people.
2. Exogenous group consists of people working to some extent “for export”, i.e. satisfying the needs of residents of other areas; hence exogenous functions (urban-creative, specialized) are fulfilled by these sectors of the economy of the town, which give support not only to local people, but mainly to all people living in the outer areas. These sections are the economic base of the town, their development leads to the inflow of money into the town,

¹ A. Kulczyk-Dynowska, *Inwestycje infrastrukturalne Karkonoskiego Parku Narodowego a zrównoważony rozwój obszaru*, in: *Rola podmiotów sektora publicznego, gospodarstw domowych i przedsiębiorstw w kreowaniu i wspieraniu zrównoważonego rozwoju*, eds. J. Adamek, T. Orzeszko, Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu, 2013, No. 297, Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu, Wrocław 2013, pp. 209–214.

² K. Przybyła, *Przekształcenia funkcji turystycznej w niektórych miastach powiatu jeleniogórskiego – wybrane aspekty*, in: *Gospodarka turystyczna w regionie. Przedsiębiorstwo. Samorząd. Współpraca*, Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu nr 157, Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu, Wrocław 2011, pp. 894–902.

³ T.G. Grosse, *Przegląd koncepcji teoretycznych rozwoju regionalnego*, „Studia Regionalne i Lokalne” 2002, nr 1 (8), p. 26.

the rapid growth in the activities of an endogenous character, and consequently to the development of the city.⁴

The article uses two methods to measure the economic base of the town – the Indicator of Labor Surplus (ILS) and the Florence's Coefficient of Specialization (FCS), comprehensively discussed in the previous papers.⁵

Transformation of functional structures in the analyzed towns

The starting point in the analysis of the changes in the functional structures of the examined towns can be a statement resulting from the data in Table 1 that in recent years there have been unfavourable phenomena in terms of the number of employees. So, if in 2009 two of the four examined towns, i.e. Karpacz and Piechowice showed that the total number of employed persons was higher than five years earlier, only in 2013, as compared to 2009, the employment decreased in all the towns. A slightly different situation was in the range of, significant from the point of view of the purpose of this study, Section I of the Polish Classification of Activities (PKD) 2007 (activities related to the accommodation and food service). In Karpacz and Piechowice the number of people working in this section increased periodically, in Szklarska Poręba the negative trend was reversed after 2009. It is worth noting that due to the need of maintaining the confidential character of statistical information it was not possible to obtain the data on the number of employees in this section in Kowary. This reflects a small number of economic operators (less than three in the territorial unit) involved in the activities of this kind in the town, and thus – little significance of this kind of activity for the area's economy.

At the same time, it can be seen that both the total number of globally employed and the number of employees in Section I in Lower Silesia has increased.

The data with the number of persons employed (Table 1), is, in the case of the examined towns, a basis for calculating the Indicator of Labor Surplus (Table 2) and Florence's Coefficient Specialization (Table 4) relevant for 2005, 2009 and 2013. The analysis excludes the agricultural sector, as it does not perform the urban-creative functions.

Using the surplus employees ratio can determine the level of employment in the exogenous group. This is done by comparing the actual structure of employment in the town with the structure adopted as a basis of reference. In this study it is its employment structure in the region. A negative value of the meter means that within the area there are deficiencies which must be supplemented by importing products from the outer regions.⁶

Table 3 presents the employment structural indicators in exogenous group which are a measure of different types of urban-creative functions.

⁴ J. Słodczyk, *Przestrzeń miasta i jej przeobrażenia*, Wydawnictwo Uniwersytetu Opolskiego, Opole 2001, p. 64

⁵ Cf. K. Przybyła, *Przekształcenia...* 896.; Z. Przybyła, K. Przybyła, *The Transformations in the Functional Structure of Jelenia Góra*, in: *Hradec Economic Days 2011, Economic Development and Management of Regions*, Part II, University of Hradec Kralove, Hradec Kralove 2011, p. 240.

⁶ J. Słodczyk, *Przestrzeń...*, p. 70.

Table 1. Workers in grouped sections (sectors) in 2005, 2009 and 2013 by PKD 2007

Territorial unit	Year	Total	Section:						
			A	B-F	G-J	<i>In it I</i>	K-L	M-U	<i>In it R</i>
Karpacz	2005	984	10	46	400	289	89	439	x
	2009	1,550	8	23	902	415	96	521	x
	2013	1,150	7	88	576	444	16	463	28
Kowary	2005	2,037	41	875	208	#	90	823	x
	2009	1,700	54	509	340	#	58	739	x
	2013	1,591	62	432	484	#	50	563	10
Piechowice	2005	1,065	21	733	97	28	4	210	x
	2009	1,221	23	785	205	34	4	204	x
	2013	1,187	19	712	237	40	11	208	#
Szklarska Poręba	2005	1,345	49	123	466	250	40	667	x
	2009	1,241	47	134	288	108	66	706	x
	2013	1,240	48	92	344	163	61	695	53
Lower Silesia	2005	607,223	9,721	238,382	119,710	9,231	28,954	210,456	x
	2009	690,449	7,865	257,441	148,055	12,029	34,206	242,882	x
	2013	710,196	7,948	258,935	155,723	12,493	33,132	254,458	9,856

A – agriculture, forestry and fishing (agricultural sector), B-F – industry and construction (industrial sector), G-J – trade; repair of motor vehicles; transportation and storage; accommodation and catering; information and communications, *In it I* – accommodation and catering, K-L – financial and insurance activities; real estate activities, M-U – other services: e.g. education, human health and social work activities, public administration and defence; compulsory social security, *In it R* – arts, entertainment and recreation, x – no data, # – means that data cannot be published according to statistical secret in the interpretation of Law on Public Statistics.

Source: own study based on data from the Wrocław Statistical Office.

Table 2. Values of ILS for the tested towns

Town	Year	Sections			
		B-F	G-J	K-L	M-U
Karpacz	2005	-340.3	206.0	42.1	98.0
	2009	-554.9	569.6	19.2	-24.2
	2013	-331.3	323.8	-37.6	51.0
Kowary	2005	75.3	-193.6	-7.1	117.0
	2009	-124.9	-24.5	-26.2	141.0
	2013	-148.1	135.1	-24.2	-7.0
Piechowice	2005	314.9	-113.0	-46.8	-159.1
	2009	329.7	-56.8	-56.5	-225.5
	2013	279.2	-23.3	-44.4	-217.3
Szklarska Poręba	2005	-405.0	200.8	-24.1	200.8
	2009	-328.7	21.9	4.5	269.4
	2013	-360.1	72.1	3.2	250.7

Source: own study and K. Przybyła, *Przekształcenia...* 897.

Table 3. Employment structure indicator in exogenous group of the tested towns (%)

Town	Year	Sections:			
		B-F	G-J	K-L	M-U
Karpacz	2005	–	60	12	28
	2009	–	97	3	–
	2013	–	86	–	14
Kowary	2005	39	–	–	61
	2009	–	–	–	100
	2013	–	100	–	–
Piechowice	2005	100	–	–	–
	2009	100	–	–	–
	2013	100	–	–	–
Szklarska Poręba	2005	–	50	–	50
	2009	–	7	2	91
	2013	–	22	1	77

Source: own study and K. Przybyła, *Przekształcenia...* 897.

Florence’s specialization coefficient allows the identification of specialized functions that determine the importance of the town in the region. The value of the meter $w \leq 1$ means that the town does not specialize in a particular sector of the economy, i.e. this area of activity is endogenous. If $w > 2$, the town has a high level of specialization in a particular sector.

Table 4. Values of FCS for the tested towns

Town	Year	Sections					
		B-F	G-J	I	K-L	M-U	R
Karpacz	2005	0.1	2.1	19.3	1.9	1.3	x
	2009	0.0	2.7	15.4	1.3	0.96	x
	2013	0.2	2.3	21.9	0.3	1.1	1.8
Kowary	2005	1.1	0.5	#	0.9	1.2	x
	2009	0.8	0.9	#	0.7	1.2	x
	2013	0.7	1.4	#	0.7	0.99	0.5
Piechowice	2005	1.8	0.5	1.7	0.1	0.6	x
	2009	1.7	0.8	1.6	0.1	0.5	x
	2013	1.6	0.9	1.9	0.2	0.5	x
Szklarska Poręba	2005	0.2	1.8	12.2	0.6	1.4	x
	2009	0.3	1.1	5.0	1.1	1.6	x
	2013	0.2	1.3	7.5	1.1	1.6	3.1

Source: own study and K. Przybyła, *Przekształcenia...* 897.

When analyzing the information resulting from Tables 1–4 it can be noted that:

Throughout the whole period it is Karpacz that remains the center of services. The dominant role of exogenous group of the town is a G–J PKD 2007 grouping, including: trade; repairs of motor vehicles, transport and warehouse management; accommodation and catering business;

information and transport services. Additionally, in 2013, 14% of the exogenous group were employees of M–U grouping, i.e. other services (this group is dominated by non-market services). At the same time, unlike in previous years, in 2013 the K–L grouping was of no relevance for a part of directed “outside” economy of the town, i.e. financial and insurance business, and real estate services were losing from period to period.

Karpacz (at least) since 2009 up to 2013 was very highly specialized in terms of Section I, which can largely be identified with the implemented by the town tourism function. It may be noted that the scope of this specialization decreased since 2005 until 2009, however, in 2013 it was already higher than at baseline (Table 4, Figure 1). The evidence of the fundamental importance of the tourism function for the town’s economy is its specialization in section R (cultural activities, entertainment and recreation).

In Kowary, as already mentioned, the number of total employment constantly decreased, in 2013 it was more than 21% smaller than in the first period. A significant drop in employment occurred in the industrial sector. Taking into account the fact that the value of the ILS for the industrial sector in 2005 was 75.3, in 2008 (–124.9), and in 2013. (–148.1), we can see significant shortages in production, to have been replaced by the import of goods from outside the town. The situation is more clearly visible in employment rates in the exogenous group - in 2005 38% of all employees engaged in the activities directed outside the town were employed in the industrial sector, after 2009 this share dropped to zero.

In 2009, the grouped sections M–U, i.e. other services that reached at this time a low level of specialization, were essential for the outwardly directed part of the economy of the town. In 2013 the grouping lost its relevance. At the same time there was an increase in the rank of G–J group. Due to the fact that the value of the FCS for the group grows steadily, it can be expected that the town will develop its specialization in this area. However, considering the small number of economic operators functioning in the activities described in Section I, and due to the lack of specialization in the R section, it can be stated that the tourism function is not an exposed part of the economy of the town.

Piechowice, throughout the whole period of the research, remained an industrial center. In 2005 68.8% of total employment, in 2009 64.3% and in 2013 60% of employees still worked in this sector. This is undoubtedly related to a special economic zone which is dynamically functioning in the town. However, SEZes (Special Economic Zone) in the Lower Silesia were affected by the global economic crisis.⁷ Its effects also moved to Piechowice subzone of Kamiennogórska SEZ manifesting as a decrease in employment in the industrial sector. This was reflected in the WSF whose value decreased from 1.8 in 2005 to the size of 1.6 in 2013. It developed throughout the period of the research maintaining endogenous character – the service sector grouped in sections G–J. At the same time the town, compared to other towns in the Lower Silesia, presented an average specialization within Section I which is a part of the group. The range of expertise in this area in

⁷ See K. Przybyła, *Influence of an Economic Crisis on Functioning of Special Economic Zones in the Lower Silesia*, in: *Hradec Economic Days 2014, Economic Development and Management of Regions*, Part IV, University of Hradec Kralove, Hradec Kralove 2014, pp. 201–207

the years 2005–2009 got slightly reduced (2005 – 1.7, 2009 – 1.6) to reach in 2013 the highest in the analyzed period WSF value of 1.9 (Figure 1). Considering the steady increase in growth in the number of workers in this section, it can be assumed that Piechowice gradually develops tourism function, complementing the economic landscape of the town.

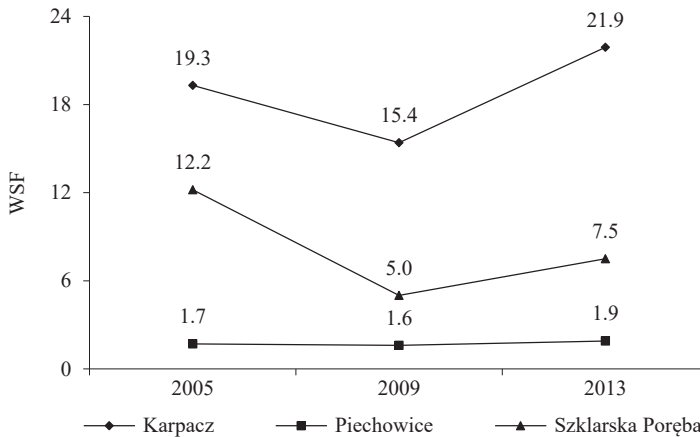


Figure 1. Changes of the level of specialization in Section I in 2005–2013

Source: own study.

Szklarska Poręba has remained the multi – service town. In the first period of the research, 50% of all employees engaged in the activities of an exogenous character were employed in the services sector G–J, then this share fell in 2009 to achieve the level of 7%. After 2009 the number of persons working in a grouping G–J began to increase, and simultaneously the share of workers employed in the urban–creative group increased to 22%.

This has been reflected in the value of the FCS, which for 2005 reached the size of 1.8, for 2009 – 1.1, and in 2013 – 1.3 (Figure 1). At the same time there were very significant changes in Section 1 which is a part of the grouping. The decrease in the number of the employed in this section in the town (56.8% vs. 2009/2005) was accompanied by the increase of this figure in the region (over 30%). It has been marked as a significant decline in the value of the WSF (2005 – 12.2, 2009 – 5.0) (Figure 1). Thus, in 2009, Szklarska Poręba was still highly specialized in tourism function, but the scope of this specialization was firmly contracted. After 2009 the situation improved. The employment in Section I in the town did not reach the level from the initial period, but significantly increased (in relation 2013/2009 by more than 50%). At the same time the number of the employed in Section I in Lower Silesia slightly increased. As a result, the measured level of FCS in Szklarska Poręba increased in 2013 to 7.5. A proof of the essential importance of tourism functions to the economy of the town is the high specialization in Section R.

During the whole period of the research, the grouped sections M–U were of relevance for the outwardly directed part of the economy of the town. Szklarska Poręba obtained and maintained

a specialization in financial services, grouped in sections K–L (financial and insurance activities, real estate activities).

Conclusions

It can be concluded that in three of the four analyzed towns the size of exogenous groups in 2013 was lower than in 2005 – in Kowary by 29.7%, in Piechowice by 11.3% and in Szklarska Poręba by 18.8%. Only in Karpacz the size of this group increased by 8.3%. At the same time there was transformation of dominants in the exogenous employment structure. It can be assumed that, depending on the involvement of local authorities and the possession and use of endogenous growth factors by individuals (such as capital, infrastructure, geographical location, recognition of the town), the towns improved or lost economic importance in Lower Silesia.

Two of the four analyzed cities – Karpacz and Szklarska Poręba – essentially based their growth on the implemented tourism function. In Piechowice tourism formed and complemented the economic landscape of the town. It can be seen that in the towns the level of specialization in section I PKD 2007, after declining for years 2009/2005, began to grow. In the case of Kowary tourism was not an essential element of the town economy.

References

- Grosse T.G., *Przegląd koncepcji teoretycznych rozwoju regionalnego*, „Studia Regionalne i Lokalne” 2002, nr 1 (8).
- Kulczyk-Dynowska A., *Inwestycje infrastrukturalne Karkonoskiego Parku Narodowego a zrównoważony rozwój obszaru*, in: *Rola podmiotów sektora publicznego, gospodarstw domowych i przedsiębiorstw w kreowaniu i wspieraniu zrównoważonego rozwoju*, eds. J. Adamek, T. Orzeszko, Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu nr 297, Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu, Wrocław 2013.
- Przybyła K., *Influence of an Economic Crisis on Functioning of Special Economic Zones in the Lower Silesia*, in: *Hradec Economic Days 2014, Economic Development and Management of Regions*, Part IV, University of Hradec Kralove, Hradec Kralove 2014.
- Przybyła K., *Przekształcenia funkcji turystycznej w niektórych miastach powiatu jeleniogórskiego – wybrane aspekty*, in: *Gospodarka turystyczna w regionie. Przedsiębiorstwo. Samorząd. Współpraca*, Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu nr 157, Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu, Wrocław 2011.
- Przybyła Z., Przybyła K., *The Transformations in the Functional Structure of Jelenia Góra*, in: *Hradec Economic Days 2011, Economic Development and Management of Regions*, Part II, University of Hradec Kralove, Hradec Kralove 2011.
- Słodczyk J., *Przestrzeń miasta i jej przeobrażenia*, Wydawnictwo Uniwersytetu Opolskiego, Opole 2001.

PRZEKSZTAŁCENIA FUNKCJI TURYSTYCZNEJ WYBRANYCH OBSZARÓW POWIATU JELENIOGÓRSKIEGO

SŁOWA KLUCZOWE

miasta, funkcje turystyczne, metody oceny funkcji jednostek osadniczych

STRESZCZENIE

Powiat jeleniogórski ulokowany jest w atrakcyjnej turystycznie, południowo-zachodniej części województwa dolnośląskiego. W jego granicach zlokalizowane są cztery gminy miejskie, zaliczyć je można do grona miejscowości małych, są to: Karpacz, Kowary, Piechowice i Szklarska Poręba. W artykule dokonana została analiza przekształceń w strukturach funkcjonalnych tych miast, ze szczególnym uwzględnieniem zmian zachodzących w zakresie pełnionych przez nie funkcji turystycznych. Przeprowadzono badania nad wielkością, strukturą i zmianami zatrudnienia. Badanie wykonane zostało na gruncie teorii bazy ekonomicznej, przy wykorzystaniu dwóch mierników – wskaźnika nadwyżki pracowników (WNP) i współczynnika specjalizacji Florence'a (WSF). Badanie może być przydatne w planowaniu rozwoju i w zarządzaniu miastem.