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RELATIONSHIP BETWEEN TOURISM ATTRACTIVENESS AND EU-FUNDS ABSORPTION. THE CASE OF WEST POMERANIA

Abstract

The paper explores relationship between European fund absorption by communes in West Pomerania, Poland and their tourist attractiveness. Authors assumed that tourist attractiveness index is positively correlated with the European fund absorption from 5th Regional Program (which is directed to Tourist and Culture). Research proved that between tourist attractiveness index and amount of funds absorbed per capita there is a strong positive correlation which is statistically significant.

Keywords: tourism attractiveness, EU-funds, West Pomerania, public support

Introduction

Tourists visit destinations because of attractions, however tourist attractions are very rarely a profitable business. Whether an attraction is a museum, historical ruins, an event or exhibition it usually requires public support. Public intervention, in turn, is justified by the expenditure tourists leave in a destination. As tourist attractions are rarely entirely created from scratch and base mostly on the cultural or natural heritage, it is presumed that the more tourist attractions is a region the

more public support is justified to boost tourist economy. On the other hand, as EU funds directed to tourism sector represent only a fraction of whole EU funds, the presence of tourist attractions should not determine the whole EU support to the region. In order to research those two issues authors of this paper decided to check those relationships in West Pomerania, Poland which is a province endowed on the one hand with numerous tourist attraction (Baltic coast, various lakes, rives, few cultural cities) but, on the other hand, with a presence of communes without any tourist premises as well.

The reminder of this article is structured as follows: In section 1 the EU funds for tourism sector are briefly discussed and conceptualized. Section 2 discussed issues of tourist attractions and presents attempts in measuring tourist attractiveness of a region. In section 3 authors formulate research hypothesis and in section 4 hypothesis are quantitatively tested. Last section presents conclusions and advocates future research possibilities.

European Union support

Tourism, as many other parts of service economy, requires public intervention both from supply and demand perspective. From one side disadvantaged social groups obtain subsidies to their holidays (social tourism, supported in authoritarian countries (Hachtmann, 2007; Brüstle, 1941), and, on the other hand, tourism enterprises and tourism destinations receive substantial support to increase their competiveness. There is an extensive literature covering issues of justification of public support in tourism sector (Bochert, 2007; Heeley, 2003; Pawlicz, 2008). Although a level of public intervention in tourism industry constitutes a constant subject of economic dispute its presence per se can hardly be questioned. Tourism organizations get public support for two main reasons:

1. They are engaged in tourism sector and are eligible to get funds dedicated to this area.
2. They receive money because of their special characteristics (e.g. innovation support in small and medium enterprises, support to peripheral or pure regions etc.).

There are also projects that require from tourism organizations to fulfill both conditions (e.g. support dedicated only to small tourism enterprises). Only those (mixed) projects are interest area of this paper.

European Union grants subsidies to tourism organizations and regions in frames of various funds as tourism industry is not an industry s.s. (tourism enterprises are defined from demand perspective). In Poland, most of EU-funds flows to tourism organizations via European Social Fund (ESF) and European Regional Development Fund (ERDF) structural funds which aim is to diminish economy differences between regions in EU. Polish regions and organizations are eligible to obtain those funds because their GDP per capita in under 75% of EU average.

In this paper EU support to tourism regions will be conceptualized as EU funds from 5 priority of Regional Program (Tourism and Culture). Only organizations from West Pomerania are eligible to claim from this RPO.

Tourism attractiveness

Tourism attractiveness belongs to most used and confusing terms in tourist literature. Tourist product of region is usually defined as an amalgam of tourist infrastructure, services and attractions (Wodejko, 1998, p. 22; Doswell, 1998, pp. 48–49; Wanhill, 2005). Tourist attraction are further divided into natural and anthropogenic attractions and tourist events (Mundt, 2001). The term "tourist attractiveness", however, in the literature refers to various concepts, sometimes only loosely connected to "tourist attractions".

First of all two main general approaches need to be distinguished. In the first tourist attractiveness is defined from demand perspective in the other from supply perspective. The "demand side" approach is dominant in non-scientific publications (World Tourism Organization, 2005; Hartl, 2003), however it appears also in articles from renowned journals (Hong-bumm, 1998; Cracolici and Nijkamp, 2008; van der Ark and Richards, 2006). This "perceived" tourist attractiveness can be measured by a simple questionnaire where tourists indicate in a Lickert scale which components of a tourist product they like the most (Hartl, 2003). Van der Ark and Richards (2006) defined "tourist attractiveness" as a "level of enjoyment of cultural activities" and measured similarly. Other approach bases on the available tourist guides (i.e. on the opinion of professionals) and their rating (World Tourism Organization, 2005). Finally, in Hong-bumm (1998) study, tourist attractiveness was measured in relation to similar destinations (there were five national parks in South Korea). Similar approach has been aplied in the work of Cracolici and Nijkamp (2008).

Tourist attractiveness from the supply side perspective is usually mentioned when some part of tourist infrastructure has been renovated or built (Masson and Petiot, 2009). In this approach tourist attractiveness is a way to measure a whole tourist product, with all its elements (Wanhill, 2005; Milewski, 2005; Bednarska, Gołembski and Hołderna-Mielcarek, 2002). The approach proposed by Milewski (2005) and Bednarska, Gołembski and Hołderna-Mielcarek (2002) assumed quantitative assesment of tourist attractivenss. Table 1 presents all elements that were taken into account while assesing tourist attractiveness.

Table 1. Factors that determine tourism attractiveness according to different authors.

Feature:	(Bednarska, Gołembski, Hołderna-Mielcarek, 2002)	(Milewski, 2005)
Attraction	0.250	0.250
Ecology	0.175	0.125
Transport infrastructure	0.075	0.100
Services	0.160	0.100
Technical infrastructure	0.125	0.050
People	0.115	0
Finances of communes	0.100	0
Accommodation establishments	0	0.250
Restaurants	0	0.125
Total	1	1

Source: Milewski, 2005; Bednarska, Gołembski nad Hołderna-Mielcarek, 2002.

Interesting approach to tourist attractiveness has been presented by Ferreira and Estevao (2009). They tried to find a link between the development of tourism cluster and tourist attractiveness of a destination. Still they do not show it quantitatively.

Research hypothesis

As mentioned in introduction to this paper, authors seek to find any relationship between tourist attractiveness of a destination and public support from EU funds. Authors presume that (1) communes that receive funds from UE (from programs directed to tourism development) have a higher tourist attractiveness than those that receive less funds (or communes endowed with tourist attractions

will receive more funds from EU) and (2) tourist attractions does not influence possibilities of EU funds absorption at a whole.

As authors decided to test those hypothesis quantitatively, the Milewski (2005) approach to tourist attractiveness has been applied. Values of his Taxonomical Development Index (TDI) refer to all 114 communes in West Pomerania. On the other hand, Polish Ministry of Regional Development presents data covering all EU funds from all projects.

Verification of hyphothesis

In 2011 out of all 114 communes of West Pomeranian province only 18 (approx 16%) have recived the EU fund for tourism. Thus, the absorption of the fund is considered to be at a very low level. Figure 1 shows the percentage of communities which benefited from the EU fund.

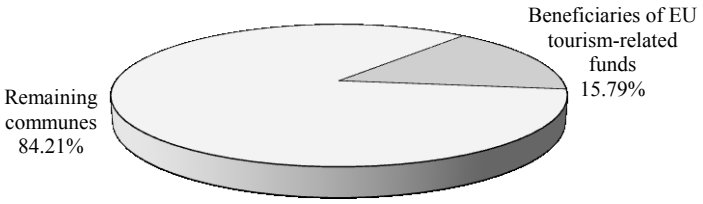

Fig. 1. Communities benefiting from tourism-related EU-funds

Source: own elaboration based on statistical data.

Verification of first hypothesis

In order to asses the first hypothesis the authors assumed that touristic attractiveness is measured by Taxonomical Development Index (TDI). Higher value of that index means higher touristic attractiveness for the particular commune. For the variable representing benefits from the EU fund was taken into account the value of amount granted to the commune per capita. It helped to level the differences in the number of citizens of particular communes. Thus, the Pearson's coefficient has been used to estimate correlation between two variables (Hundert, 2006):

$$r_{yx} = \frac{c(y,x)}{S(y) \cdot S(x)}$$

$$c(y,x) = \overline{yx} - \bar{y} \cdot \bar{x}$$

$$S(y) = \sqrt{\overline{y^2} - (\bar{y})^2}$$

$$S(x) = \sqrt{\overline{x^2} - (\bar{x})^2}$$

where:

$c(x, y)$ – covariance x, y variables,

$S(y)$, $S(x)$ – standard deviations of y and x variable.

The next step was to check statistical significance of that coefficient. The authors assumed the level of $p = 0.05$. Confirmation of the significant relation between TDI and benefits from the fund for tourism would be assumption of the alternative hypothesis H_1: $\rho \neq 0$. All calculations have been done in Statistics 10.0.

Table 1. The value of the correlation coefficient

Variable	Value of the fund per capita
TDI	.7771
	$p = 0$

Source: own elaboration.

Given coefficient means that there is a positive and strong relation between analyzed variables. The coefficient is statistically significant which confirms that TDI is truly influenced by received benefits from the EU fund.

In order to additionally verify given results for the variable TDI it is possible to calculate median and quartiles and then classify communes in terms of these measures. After that it is necessary to check how many communes which were granted to financial benefits are placed in particular quarters. The outcomes of such actions are presented in table 2.

Table 2. Median and quartiles of TBI coefficient

Variable	Median	Lower quartile	Upper quartile
TDI	0.119000	0.107000	0.132000

Source: own elaboration.

Results showed that in the group of communes having the highest TDI there were twelve communes (approx. 67%) that benefited from the fund. Among communes having the lowest values of TDI there was only one commune benefiting from the fund. There were also examined the differences between showed results in the group of communes which benefited from the fund and the ones that did not. Comparison of these two groups in terms of average or in terms of quartiles clearly points at significant differences in TDI. The measures of structure in the group of communes benefiting from the fund:

Table 3. The measures of structure of TBI (communes benefiting from tourism EU-funds)

Variable	Average	Median	Lower quartile	Upper quartile	Stand. dev
TDI	0.214167	0.171000	0.130000	0.251000	0.134202

Source: own elaboration.

The measures of structure in the group of communes not benefiting from the fund:

Table 4. The measures of structure of TBI (communes not benefiting from tourism EU-funds)

Variable	Average	Median	Lower quartile	Upper quartile	Stand. dev
TDI	0.120000	0.117000	0.104500	0.127000	0.027645

Source: own elaboration.

The average value of TDI in the group of communes benefiting from the fund was nearly twice higher then among communes not benefiting from the fund. Eventually it is possible to conclude that given hypothesis (1) that communes

which did not receive money from the EU fund have higher TDI then the others. These results can be easily interpreted by analyzing Figure 2.

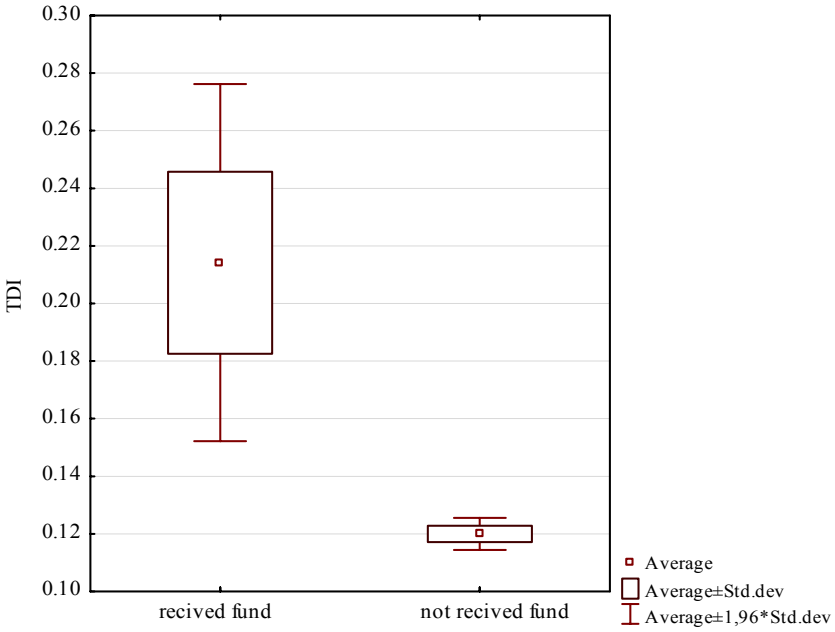

Fig. 2. Average and standard deviations of TBI for both group of communes

Verification of second hypothesis

In order to verify hypothesis (2) there were considered only communes benefiting from the fund. And again the TDI variable was used as the measure of tourist attractiveness and the fund utilization index was considered. In order to check relationship between these variables Pearson's coefficient was used as before. Then its statistical significance was examined. The following outcomes has been showed:

Table 5. Pearson's coefficient between tourism attractiveness and funds utilization index

Variable	Funds absorption
TDI	.3456
	p = .160

Source: own elaboration.

Recived Pearson's coefficient in the examined year points at positive correlation between the chosen features, however it is not statistically significant. It means that it is possible to define that touristic attractiveness has an impact on EU fund utilization.

Conclusions

From the carried analysis arises a conclusion that the communes benefiting from the EU fund have higher TDI. It would be necessary to ask the question to which extend the communes are aware of their touristic attractiveness and if they have a concept on rising they attractiveness. Finally it is possible to conclude that communes having higher tourist attractiveness apply for the grant more willing than the communes which are less attractive. Taking into account that the absorption from the EU fund does not influence TDI, it is possible to raise the thesis that communes are able to increase their touristic attractiveness regardless the level of the money absorption of the fund.

References

Bednarska, M. Gołembski, G. & Hołderna-Mielcarek, B. (2002). *Przesłanki i metody wyodrębniania miejsc o szczególnej atrakcyjności turystycznej*. In: *Metody stymulowania rozwoju turystyki w ujęciu przestrzennym*. Gołembski, G. (ed.), pp. 21–45. Poznań: Akademia Ekonomiczna w Poznaniu.

Bochert, R. (2007). *Tourismuspolitik.* Bonn: uni-edition.

Brüstle, R. (1941). *Die Bedeutung der Verkehrsmittel für den deutschen Fremdenverkehr.* Halle (Saale): Eduard Klinz Buchdruck/Werkstätte.

Cracolici, F. & Nijkamp, P. (2008). The attractiveness and competitiveness of tourist destinations: A study of Southern Italian regions. *Tourism Management*. No. 30, pp. 336–344.

Doswell, R. (1998). *Tourism, How Effective Management Makes the Difference.* Oxford: Butterworth-Heinemann.

Ferreira, J. & Estevao, C. (2009). *Regional Competitiveness of Tourism Cluster: A Conceptual Model Proposal.* Pobrano 1.02 2012 z lokalizacji University of Beira Interior: http://mpra.ub.uni-muenchen.de/14853.

Hachtmann, R. (2007). *Tourismus Geschichte*. Göttingen: Vandenhoeck & Ruprecht GmbH&Co.

Hartl, A. (2003). *Survey of visitors to Bornholm 2002*. Nexø: Centre for Regional and Tourism Research.

Heeley, J. (2003). *Public private sector partnerships in tourism*. In: *Tourism and Hospitality in the 21st century*. Lockwood, W.A. Medlik S. (eds.), pp. 275–280. Devon: Butterworth Heinemann.

Hong-bumm, K. (1998). Perceived attractiveness of Korean destinations. *Annals of Tourism Research*, No. 25 (2), pp. 340–361.

Hundert, M. et al. (2006). *Wybrane zagadnienia ze statystyki*, Szczecin, Economicus.

Masson, S. & Petiot, R. (2009). Can the high speed rail reinforce tourism attractiveness? The case of high speed rail between Perpignan (France) and Barcelona (Spain). *Technovation*. No. 29, pp. 611–617.

Milewski, D. (2005). *Regionalne uwarunkowania rozwoju turystyki na przykładzie województwa zachodniopomorskiego.* Szczecin: Uniwersytet Szczeciński.

Mundt, J. (2001). *Einführung in den Tourismus.* München: Oldenburger Verlag.

Pawlicz, A. (2008). *Dobra Publiczne i Dobra Klubowe na Rynku Turystycznym w Aspekcie Zrównoważonego Rozwoju*. In: *Zrównoważony Rozwój Turystyki*. Wodejko, W.S. (ed.), pp. 95–106. Warszawa: Szkoła Główna Handlowa.

van der Ark, L.A. & Richards, G. (2006). Attractiveness of cultural activities in European cities: A latent class approach. *Tourism Management*. No. 27, pp. 1408–1413.

Wanhill, S. (2005). *Role of government incentives*. In: *Global tourism*. Theobald, W.F. (ed.), (3rd edition), pp. 394–405. Oxford: Butterworth-Heinemann.

Wodejko, S. (1998). *Ekonomiczne zagadnienia turystyki.* Warszawa: Wyższa Szkoła Handlu i Prawa.

World Tourism Organization. (2005). *City Tourism & Culture, The European Experience.* Brussels: World Tourism Organization.