

---

**Krzysztof Borodako, Ivan Kožić\***

---

## Abstract

The aim of this paper is to foster discussion on the issue of cooperation patterns typical for the supply side of the tourism market. Poland is used as a case study and an email survey was conducted in order to gather the relevant information from Polish tourist companies, mostly SMEs. The data obtained are analyzed using multivariate statistical techniques: factor analysis and logistic regression. Aside from cooperation between tourism firms, attention is also paid to relations between tourism firms and their partners in other sectors of the economy. The authors argue that there are certain characteristic groups of partners with which companies operating on the tourism market usually cooperate. The study also found that the size of a company affects its ability to cooperate with particular groups of partners.

**Keywords:** cooperation patterns, business, tourism, factor analysis, logistic regression

**JEL Classification:** L14, L83

## 1. Introduction

The globalization and increasing competitiveness of the tourism market necessitate greater flexibility than ever before from tourism companies, and rapid access to different resources (Freel, Harrisom, 2006; Ndou, Passiante, 2005; Soriano, 2005). In a tourism sector dominated by micro and small companies, these features may be achieved above all by cooperation with a range of stakeholders at the local and/or regional level (Borodako, 2011; Fernández-Ardèvol, Lladós Masllorens, 1984; Hwang, Lockwood, 2006). Such fragmentation of the market is caused by the great diversity of its players. It is argued in the literature that reasons for cooperation depend on the market segment and its specific conditions (Czernek, 2013; Huybers, Bennett, 2003; Weidenfeld, Butler, Williams, 2011). Since tourism is a unique type of economic activity, which crosses the boundaries of many different industries and sectors of the economy, cooperation patterns in the tourism business could be expected to be of great interest to researchers and the wider academic community. However, the literature regarding patterns of collaboration in the tourism business is rather scarce. This is especially evident in the case of cooperation patterns at the national level. In order to go some way to rectifying this situation, an appropriate study was undertaken to explore the cooperation patterns typical for the supply side of the tourism market and, accordingly, to provide input for further discussion on this issue. To achieve this objective, a suitable survey was conducted among tourist firms across Poland. The data obtained were then analyzed using multivariate statistical techniques,

---

\* Krzysztof Borodako, Faculty of Management, Cracow University of Economics, Kraków, Poland (borodako@uek.krakow.pl);  
Ivan Kožić, Institute for Tourism, Zagreb, Croatia (ivan.kozic@iztg.hr).

factor analysis and logistic regression. The analysis conducted may be considered above all exploratory, since it aimed to offer an initial, and still rudimentary insight into forms of cooperation on the supply side of the tourism market at the national level.

This paper falls into five sections, including the introduction. The second section reviews the related literature with a focus on concepts, motivations and forms of cooperation. The third part presents the methodological aspects of the research. The fourth section of the paper presents the results of the study, and the last part – the fifth – contains a discussion and conclusions.

## 2. Theoretical Framework

### 2.1 Understanding the concepts

The tourism sector depends on cooperation. As a specific service industry, tourism is fragmented both geographically and in business terms. The dominance of micro and small companies on a multi-sector market creates a need for cooperation. Although some authors treat cooperation and other forms of joint action (networking and collaboration) as very similar terms, *i.e.* closely related (Bramwell, Lane, 2000b), some subtle differences may be identified (Brown, Keast, 2003; Mulford, Rogers, 1982; Plummer, Kulczycki, Stacey, 2006). Cooperation may be defined as a dynamic process-oriented strategy for managing turbulent planning domains at local and other levels (Lemmetynen, Go, 2009). Brown, Keast (2003) explain that cooperation usually takes place over a short time frame, and is often informal and voluntary. A particular type of cooperation is networking. Go, Williams (1993) described networking as a type of cooperation that cannot be treated as a merger or a joint venture, but merely as a structure of stakeholders related to each other by certain interests (Fordet *et al.*, 2003, p. 18). Networking is also often an informal way of achieving a common goal, but its time frame is not usually restricted. Fernández-Ardèvol, Lladós Masllorens (1984) describe cooperation as a particular form of tourism business networking.

Wood, Grey (1991, p. 146) describe the concept of collaboration as a situation in which a group of autonomous stakeholders in a given domain engage in an interactive process to act or decide upon issues related to that domain. Hence, a joint process of interaction among stakeholders in a tourist destination could be considered collaboration. Stakeholders usually pool their resources and cooperate to resolve emerging problems in tourism development (Bramwell, Lane, 2000b; Plummer *et al.*, 2006). Collaboration, as a flexible and dynamic process, evolves over time and allows a range of partners to address serious problems and issues jointly (Gray, 1989). In this case, such specific situations may arise when organizations (firms and administrative entities) recognize their respective needs for interdependence due to competition at the local or regional level (Watkins, Bell, 2002). Gray (1985) suggested that there is an interdependence between stakeholders in the area of planning and management. Brown, Keast (2003) argue that collaboration – as opposed to cooperation – is not dependent on the good will of the autonomous actors or a willing endorsement of the arrangements, but “has some of the force of an objective, a mandate, leading to a more enduring system of relationships between the various different components of a larger system” (Brown, Keast, 2003, p. 116).

In terms of the distinction between cooperation and collaboration, the focus is on different features. Cooperation implies simply working together to achieve an agreed objective, while collaboration suggests the joining together of partners to enable both

of them to pursue their own aims, and this relation reflects a strong interdependence. The fundamental element in both concepts is the relationship between different partners located in a particular tourism destination. The underlying principle of this relationship is the motivation to be successful in some domain of the business (directly, by increasing the volume of sales, or indirectly, by improving the image of the tourism destination in which the partners operate). Many papers have contributed to a greater understanding of the issues, types and motivations of collaboration and cooperation in tourism (Borodako, 2011; Dredge, 2006; Lemmetyinen, Go, 2009; Palmer, Bejou, 1995; Selin, 1993).

## 2.2 The need for cooperation

The motivation for building a new business relation in the form of cooperation, networking or collaboration may be external or/and internal. External motivation is generated by the business environment, in particular globalization, rapid technological changes, climate change, humanity's increasing mobility, and intensifying competition between tourism destinations and companies. Internal motivation for cooperation is mostly contingent on lack of resources (tangible and/or intangible – in areas such as knowledge, personal contacts and experience). This need for a cooperating partner on a tourist market is especially prevalent among small and medium-sized enterprises. Many managers of businesses in these categories work to orchestrate a range of initiatives and, accordingly, to include their companies in an interest group (until the aim of the group is concordant with the goals of the company). The array of factors encouraging tourism firms to cooperate has been researched by many authors (Athiyaman, Robertson, 1995; Go, Williams, 1993; Watkins, Bell, 2002).

Companies endeavor to establish and maintain effective cooperation with other organizations (suppliers, public administration, R&D facilities, *etc.*) with the aim of achieving sustainable performance. By participating in various joint undertakings, tourism companies attempt to reduce transaction costs and gain economies of scale and scope. In some cases their intention is to secure access to complementary resources (Kumar, Van Dissel, 1996); in others it is simply to share the costs of production, distribution and marketing (Fyall, Leask, Garrod, 2001). In many cases, such joint work allows participants in various projects (either formal or informal) to share ideas and knowledge, resulting in an enhanced understanding of the market, new trends and new patterns of tourist behaviours. Some seek out partners with a view to sharing research and development costs (Bocquet, Cattellin, Thevenard-Puthod, Scaraffiotti, Gentet, 2006; Weidenfeld *et al.*, 2011). That usually leads to a more innovative attitude on the part of the owners and managers (Roome, 2001; Todtling, Kaufmann, 1999), and to creation of competitive new services. Cooperation may be treated as a face-to-face interaction in which tourism partners are free to communicate, negotiate and construct proposals regarding the development of a tourism destination (Bramwell, Lane, 2000b).

All the above mentioned motivating factors are elements of selected key theories. Some of them are strongly connected with these theories, while others may be understood as supplementary factors stimulating actions and reactions of various different stakeholders in a tourism destination. Beritelli (2011) distinguishes six of these theories with brief explanations: (1) game theory, (2) rational choice theory, (3) institutional analysis, (4) resource dependence theory, (5) transaction cost economics, and (6) social exchange theory. The theoretical framework of this paper draws largely on rational choice theory

and resource dependence theory. According to the former, companies select partners for cooperation according to rationality of benefits (Hall, 1994), while the latter holds that the need for resources helps companies to choose their partners (individuals or groups).

It could be said that cooperation is a central requirement for the development of a tourist destination (Bramwell, Lane, 2000a) and also for the realization of projects at the regional and corporate levels (Vernon, Essex, Pinder, Curry, 2005). In order to offer insight into different forms of cooperation, we would like to look at the outcomes of studies by other scholars. According to Copp, Ivy (2001, p. 345), manufacturing firms cooperate for the purpose of developing resources and products. In the case of service companies it has been proved that the key motivating factors for entering into such partnerships are marketing and training. The scope of the benefits appears to be significant, but many micro and small tourism companies do not exploit the opportunities presented by cooperation to an optimum degree (Palakshappa, Gordon, 2007).

### **2.3 Forms and patterns of cooperation in business**

There have been numerous studies attempting to elucidate various aspects of cooperation – for example Chon, Edgell (2006); Clark (2006); Fennell (2006); Getz, Jamal (1994); Wang, Krakover, Florida (2007). All of them deal with the tourist destination – at the regional level (Fagence, 1966) or local level (Bramwell, Sharman, 1999 and Jamal, Stronza, 2009). Morrison, Lynch, Johns (2004) identified the forms of cooperation at the international level. The most interesting motivating factors hitherto identified are information sharing, comparative studies, joint projects between countries, better planning models, and inter-agency cooperation for the purpose of tackling regional stagnation. Many of the approaches to cooperation presented in the literature focus on the planning area (Fennell, 2006). One of the collaborative planning approaches used by Timothy (1998) cited four types of cooperation: between government agencies; between different levels of administration; between same-level political bodies; and between the private and public sectors. Unfortunately, however, this typology of cooperation does not fully reflect the business profile of the tourism industry. Selin (1999) constructed an enriched typology of cooperation based on the following dimensions: geographical scale, legal structure, locus of control, organizational diversity and size, and time frame. According to Jamal and Stronza (2009), the scope of collaboration in the context of protected areas refers to conservation, economic development, alleviation of poverty, cultural protection and heritage management, and conflicts between tourism and growth. Recognition of the pattern of cooperation between tourism companies could shed new light on the dependence of service-service providers (Scott, Laws, 2010) and serve as a kind of shadow of value chains across the industry sector.

## **3. Data and Methodology**

The first phase of our research involved collecting information about tourism companies in Poland. Three information-gathering channels were used. The first channel recorded contact data on the tourism companies that already cooperated with the research team. The second was snowball sampling after we contacted companies already cooperating with the research team, and the third used databases from popular internet sources. This approach delivered satisfactory results in terms of collecting many different addresses

for companies from various kinds of tourism-sector activities. The preliminary database consisted of 8,742 unique e-mail addresses of different tourism companies in Poland. The companies were divided into seven major segments of the tourism sector in Poland:

- accommodation,
- restaurants,
- passenger transport,
- tourist attractions,
- travel agents,
- tour operators,
- tourist organizations.

The inquiry form was prepared in electronic form on the website, with access granted to companies that were invited by a special e-mail invitation. To ensure high quality in the first stage, a pilot project was organized that involved sending out 650 e-mails with invitations. After the wording of the invitation was altered, the whole process was repeated with the remaining companies. Ultimately, out of the 8,742 unique addresses to which emails were sent, 1,620 proved incorrect, so the final number of invitations delivered was 7,122. In all, the completed inquiry forms eventually gave us 980 full records. These formed the database we included in our analysis. The return rate of the survey was 13.76%. Estimation of the size of the sample as a percentage of the overall population of Polish companies active on the tourism market was a very difficult and error-prone task (many companies operate under different categories in the public statistics, which makes it impossible to generate reliable calculations). The data used were from a research project conducted by the Cracow University of Economics and delivered in 2011.

The central question in the inquiry addressed the number of partners from each of the aforementioned segments with which the surveyed company had cooperated over the previous year. The survey respondents were also asked to specify the number of partners with which their companies had cooperated in another five areas:

- public administration,
- universities,
- business consulting,
- advertising agencies,
- financial institutions.

One of the roles of all five of these types of companies/institutions is to be supportive of business and in frequent cooperation with other entities in any kind of business context. The surveyed companies thus had to answer the questions in respect of 12 types of partners in all. The survey comprised two main parts: questions on cooperation patterns, and characteristics of the company.

The answers were measured on the five-point Likert scale. A score of 1 meant that the surveyed company did not cooperate with any other entity. A score of 2 meant that it cooperated with 1–5 other companies or institutions, a score of 3 that it cooperated with 6–10 other bodies, a score of 4 that it cooperated with 11–20 other entities, and a score of 5 that the respondent company cooperated with more than 20 other businesses or institutions.

These answers were the input for the factor analysis, which is a multivariate data analysis technique often used for analyzing interdependence among a large number of variables with the primary purpose of defining the underlying structure between them (Hair *et al.*, 2010). It is often described as a data reduction technique by which a large number of starting variables is combined into a smaller number of latent variables termed factors. The factors and initial variables are connected by correlation coefficients. Depending on the prior knowledge about the concept being researched, factor analysis may be explanatory or confirmatory. The former refers to exploration of underlying structures in the data sample. In our case, the factor analysis could be qualified as exploratory.

Two further important questions in the survey were related to the size and the maturity of the surveyed companies. Respondents had to state how many employees their company had and how many years it had been operating on the tourist market. The answers to both these questions were measured using categorical binary scales. The code 1 was given to companies with 9 or fewer employees and operating on the tourist market for a maximum of 10 years. Conversely, the code 0 was awarded to surveyed companies with 10 or more employees and with a history of 11 or more years' cooperation on the tourist market.

These answers were the input for logistic regression, a multivariate data analysis technique that is very similar to the widely known linear regression, with the difference that it operates with categorical (nonmetric), *i.e.* binary or dummy dependent, variables. It measures the probability of an independent variable being in one category rather than in another (Baggio, Klobas, 2011, p. 107). In that regard, logistic regression does not require an assumption of normality or linearity. Moreover, the coefficients of logistic regression models are usually estimated using the maximum likelihood method. Logistic regression is often called LOGIT regression.

The further part of the paper presents the results of our analysis in detail. The analysis was conducted in SPSS Statistics 17.0. Every step of the application of the aforementioned methods is described in brief and the outcome commented.

## 4. Results of Analysis

Our first step in the data analysis process was to apply factor analysis to discover the groups of partners with which the surveyed companies cooperate frequently. In other words, the aim was to discover as many different groups of partners as possible. The partners in one group form one distinctive combination of cooperative partners. The first task in the application of the factor analysis was to check the factorability. The matrix of correlation coefficients was examined, the Kaiser-Meyer-Olkin measure of sampling adequacy calculated, and Bartlett's test of sphericity conducted. The results are shown in Table 1.

According to the Kaiser-Meyer-Olkin measure of sampling adequacy (0.877), the overall set of variables is entirely factorable. Besides, Bartlett's test of sphericity confirms that the overall set of correlation coefficients is significant at a level lower than 0.01.

The applicability of factor analysis is best shown by the matrix of correlation coefficients among the variables. Correlation coefficients higher than 0.5 are good indicators of the applicability of factor analysis and these are highlighted in the correlation matrix. It is interesting to note that none of the correlation coefficients are higher than 0.8, which might indicate excessive multicollinearity. Four of the variables have no correlation coefficients

higher than 0.5. These variables are thus treated as redundant and all further analysis is continued with the remaining eight variables (“Accommodation”, “Restaurants”, “Travel agents”, “Tour operators”, “Tourist organizations”, “Business consulting”, “Advertising agencies” and “Financial institutions”).

**Table 1 | Results of Factorability Check**

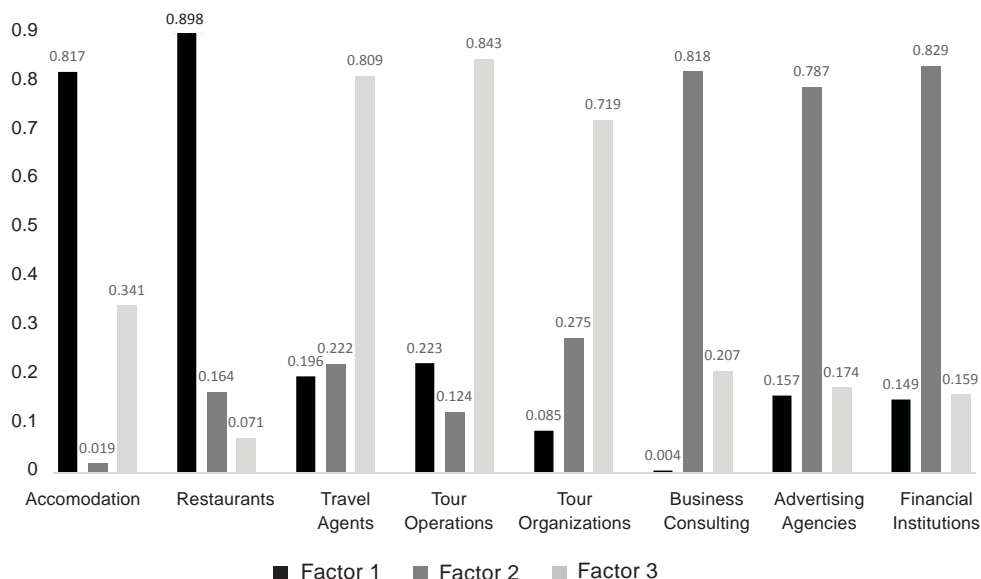
	Accommodation	Restaurants	Passenger transport	Tourist attractions	Travel agent	Tour operators	Tourist organizations	Public administration	Universities	Business consulting	Advertising agencies	Financial institutions
Accommodation	1.000	<b>0.584</b>	0.394	0.476	0.406	0.424	0.317	0.287	0.268	0.133	0.203	0.197
Restaurants	<b>0.584</b>	1.000	0.433	0.466	0.283	0.292	0.223	0.255	0.258	0.166	0.247	0.251
Passenger transport	0.394	0.433	1.000	0.452	0.365	0.379	0.288	0.337	0.275	0.214	0.273	0.286
Tourist attractions	0.476	0.466	0.452	1.000	0.409	0.418	0.341	0.316	0.292	0.220	0.287	0.243
Travel agent	0.406	0.283	0.365	0.409	1.000	<b>0.671</b>	0.480	0.394	0.415	0.354	0.307	0.376
Tour operators	0.424	0.292	0.379	0.418	<b>0.671</b>	1.000	<b>0.501</b>	0.348	0.314	0.264	0.325	0.279
Tourist organizations	0.317	0.223	0.288	0.341	0.480	<b>0.501</b>	1.000	0.465	0.422	0.347	0.346	0.319
Public administration	0.287	0.255	0.337	0.316	0.394	0.348	0.465	1.000	0.437	0.482	0.371	0.454
Universities	0.268	0.258	0.275	0.292	0.415	0.314	0.422	0.437	1.000	0.399	0.266	0.402
Business consulting	0.133	0.166	0.214	0.220	0.354	0.264	0.347	0.482	0.399	1.000	<b>0.523</b>	<b>0.584</b>
Advertising agencies	0.203	0.247	0.273	0.287	0.307	0.325	0.346	0.371	0.266	<b>0.523</b>	1.000	<b>0.563</b>
Financial institutions	0.197	0.251	0.286	0.243	0.376	0.279	0.319	0.454	0.402	<b>0.584</b>	<b>0.563</b>	1.000
<b>KMO measure of sampling adequacy</b>					0.877							
<b>Bartlett's test of sphericity</b>			<b>Chi-square</b>		3518.8							
			<b>df</b>		66							
			<b>Significance level</b>		0.000							

Source: Authors' calculation

The analysis was continued by applying the principal component technique for extraction of factors. The latent root criterion (*i.e.* factor eigenvalues equal to or greater than 1) is applied as the factor retaining criterion, together with the percentage of variance

criterion. The combination of these two, which in the literature are the most widely used criteria, led to the extraction of three factors, all of which have eigenvalues equal to or greater than 1 (the first one 3.5, the second one 1.4, and the third one 0.98, which may be treated as approximately 1). These three factors together represent 73.3% of the variance of the eight analyzed variables. Next, the VARIMAX raw orthogonal rotation technique is applied to improve interpretation of the extracted factors. The results of this step are shown in Table 2.

**Figure 1 | Factor Loadings of Rotated Factors**



Source: Authors' calculation

It seems that three sets of variables may be identified, each representing a group of cooperative partners in the Polish tourism business. The first group may be labelled “fundamentally tourist-focused”. This includes accommodation suppliers and restaurants, which indicates that a proportion of the surveyed companies cooperate frequently with both of these categories of cooperative partners. The second group may be labelled “intermediaries”. This includes travel agents, tour operators and tourist organizations, which indicates that another proportion of the surveyed companies cooperate frequently with partners in this category. Finally, the third group can be termed “business support”. This group includes business consulting firms, advertising companies and financial institutions. This is not surprising, because it is a group of partners that is regularly involved in cooperation with other companies in many industries.

The second phase of our analysis involved the application of logistic regression to include categorical variables in the analysis and, accordingly, to explore how the size and maturity of the surveyed companies influence their cooperation with the above three groups of partners. Thus, we aimed to give a slightly broader context to the issue of cooperation in the Polish tourism business. The first step in applying logistic regression



was to compute the summated scales of the initial variables. This is a special technique for creating a smaller number of composite variables to replace the larger number of original variables (see Hair *et al.*, 2010). The three newly created composite variables were the object of further analysis. Hence, they served as constitutive parts of the constructed logistic regression models together with the categorical (dummy) variables, *i.e.* the size and maturity of the surveyed companies. In the next step we constructed two logistic regression models, one with the size of the surveyed companies as the variable of interest, and another with their maturity as this variable. We estimated the coefficients of the models by the maximum likelihood method and conducted the Hosmer-Lemeshow test to examine overall goodness-of-fit. The results of this step are shown in Table 2.

**Table 2 | Results of Logistic Regression**

		Coefficients			Goodness of fit of the model
		Coefficient	Wald test significance	EXP(Coefficient)	Hosmer-Lemeshow test significance
Size	Fundamentally Tourist-focussed	0.358	0.000	1.430	0.449
	Intermediaries	-0.252	0.010	0.777	
	Business Support	-1.032	0.000	0.356	
Maturity	Fundamentally Tourist-focussed	-0.186	0.019	0.831	0.039
	Intermediaries	-0.255	0.005	0.775	
	Business Support	0.247	0.025	1.280	

Source: Authors' calculation

The results of the Hosmer-Lemeshow test indicated that the maturity of a company probably does not affect its cooperation with any of the distinct groups of partners identified. Irrespective of how many years a company has been operating on the tourist market, it may be considered equally likely to cooperate with any of the distinct groups of cooperative partners identified. Conversely, the size of a company does appear to matter, since the Hosmer-Lemeshow test shows no significance. Accordingly, only the model which evaluates the role of company size was the object of further analysis.

The final step of the application of logistic regression involved evaluation of every single coefficient in the valid model. As shown in Table 2, the Wald test statistics suggests that all of the three coefficients are significant at the level of 0.01. It could thus be concluded that the surveyed companies cooperate differently with the three identified distinct groups of cooperative partners depending on their own size. The patterns of the regression coefficients indicate that smaller companies are more likely to cooperate

less with partners in the “Business support” and “Intermediaries” groups but more likely to cooperate with partners in the “Fundamentally tourist-focussed” group. The “exponentiated logistic coefficients” shown in the fifth column of Table 2 indicate the same. The findings of the logistic regression analysis are also unsurprising, since it was to be expected that smaller companies have insufficient resources for frequent usage of the services of advertising and other consulting firms. Moreover, smaller companies are not usually eligible for substantial financing by financial institutions. Finally, since the smallest companies in our final sample were mostly travel agents, it is to be expected that they would cooperate with accommodation companies and restaurants more frequently than with other cooperative partners.

A further discussion of the findings of this research and the final conclusion are presented in the next and final section of the paper.

## 5. Conclusions

The aim of this paper is to present an empirical examination of cooperation patterns in the tourism business at the national level. The analysis is empirical and is focussed on the case of Poland, but it could also be generalized to certain other areas as a starting point for analysis. The sample was quite large, but it was not sufficient to allow the authors to extrapolate the results to the whole country or to other East European countries. At the very least it could serve as a blueprint for further investigations into the important issue of cooperation in tourism.

The cooperation patterns that we found may be described as follows. There are three distinct groups of cooperative partners of companies that operate on the tourism market. The first group could be described as a group of cooperative partners that offer traditional tourist market services: accommodation and catering. Companies that cooperate with accommodation firms also frequently cooperate with catering firms. Larger companies might be expected to cooperate less frequently with accommodation and catering firms. The second group of cooperative partners could be described as a group that consists of agents, *i.e.* firms that intermediate on the tourist market. Companies that cooperate with tourist agents also frequently cooperate with tour operators and tourist organizations. Larger companies are more likely to cooperate with such types of players on the tourist market. The third group could be described as a group of cooperative partners that usually provide support services, such as consultancy, advertising and various types of financial service. Companies that cooperate with advertising agencies are also frequently users of the services of consultancy firms and financial institutions. It was also to be expected that larger companies would cooperate more frequently with such types of players on the tourist market.

One interesting finding that should also be highlighted relates to the types of potential cooperative partners that were excluded from further analysis after factor analysis. These are “Passenger transport” firms, “Tourist attractions”, “Public administration”, “Institutions” and “Universities”. In the case of the first two types of potential cooperative partners, the reason for the exclusion could be low variability across the sample, since these types of potential cooperative partners could be perceived as “universal partners” with which all of the surveyed companies cooperate equally. Thus, the variability of answers and, accordingly, the correlation coefficients were not so large. Likewise, in the case of “Public administration”, “Institutions” and “Universities”, the reason could be that companies operating on the Polish tourist market do not cooperate with them at all, or do so only to a rather insignificant extent.

The presented results may be an interesting source of information for conducting a subsequent tourism satellite account by including in the methodology the preferences of the companies regarding cooperation and on some scale the volume of expenditures of companies from different sectors.

Given the constraints of the analysis, some limitations regarding the choice of initial sample should be mentioned. The initial sample consisted of a narrow array of companies that are the most common players on the tourist market. However, since tourism usually involves a very large number of business entities and covers a very broad area of business relations, any future empirical research should take these facts into account.

## Appendix

### Questionnaire of the study

[Question 1]

**How many different types of entities from your region (province) over the last year worked your business?**

Type of entity	with any entity	with 1-5 players	with 6-10 players	with 11-20 players	with over 20 players
accommodation companies					
catering companies					
transport companies					
private places of Interest					
travel agents (travel agents)					
tour operators (PCO)					
tourist organizations (chambers, associations)					
public administration (municipal or county offices, employment agencies, etc.)					
universities					
business consulting and training companies					
advertising, public relations (PR) agencies, etc.					
financial institutions (banks, insurance, leasing)					

[Question 2]

How do you rate the frequency of contacts with different types of actors in the region (province) over the last year? (one choice *per line*)

Type of entities	Very rare	Rare	Medium	Frequent	Very common
[QB13] accommodation companies					
[QB14] catering companies					
[QB15] transport companies					
[QB16] private places of interest					
[QB17] travel agents (travel agents)					
[QB18] tour operators (PCO)					
[QB19] tourist organizations (chambers, associations)					
[QB20] public administration (municipal or county offices, employment agencies, etc.)					
[QB21] universities					
[QB22] business consulting and training companies					
[QB23] advertising, public relations (PR) agencies, etc.					
[QB24] financial institutions (banks, insurance, leasing)					

[QM01]

**Number of employees in your company:**

- 1 - up to 9 (micro enterprise)
- 2 - 10-49 (small enterprise)
- 3 - 50-249 (medium-sized enterprise)
- 4 - 250 or over (large enterprise)

[QM02]

**Your company's history in the tourism market**

- 1 - less than 1 year
- 2 - 1-2 years
- 3 - 3-5 years
- 4 - 6-10 years
- 5 - 11-15 years
- 6 - over 15 years

## References

- Athiyaman, A., Robertson, R. W. (1995). Strategic Planning in Large Tourism Firms: An Empirical Analysis. *Tourism Management*, 16(3), 199–205. DOI: 10.1016/0261-5177(95)00004-8.
- Baggio, R., Klobas, J. (2011). *Quantitative Methods in Tourism: A Handbook*. Bristol: Channel View.
- Beritelli, P. (2011). Cooperation among Prominent Actors in a Tourist Destination. *Annals of Tourism Research*, 38(2), 607–629. DOI: 10.1016/j.annals.2010.11.015.
- Bocquet, R. et al. (2006). *The Inter-Firm Networks in the Mountain Tourism Industry: between Transactions and Competence*. Papers presented at the Druid Summer Conference, pp. 1–21.
- Borodako, K. (2011). Cooperation of Small and Medium-Sized Tourism Enterprises (SMTEs) with Tourism Stakeholders in the Małopolska Region – Top Management Perspective Approach. *Tourism & Management Studies*, 7, 24–32.
- Bramwell, B., Lane, B. (2000a). Collaboration and Partnerships in Tourism Planning, in Bramwell, B., Lane, B., eds., *Tourism Collaboration and Partnerships: Politics, Practice and Sustainability*. Clevedon: Channel View Publications, pp. 1–19.
- Bramwell, B., Lane, B. (2000b). *Tourism Collaboration and Partnerships: Politics, Practice and Sustainability*. Clevedon: Channel View Publications.
- Bramwell, B., Sharman, A. (1999). Collaboration in Local Tourism Policy Making. *Annals of Tourism Research*, 26(2), 392–415. DOI: 10.1016/s0160-7383(98)00105-4.
- Brown, K., Keast, R. (2003). Citizen-Government Engagement: Connection through Networked Arrangements. *Asian Journal of Public Administration*, 25(1), 107–31. DOI: 10.1080/02598272.2003.10800411.
- Chon, K. S., Edgell, D. L. (2006). *Managing Sustainable Tourism: A Legacy for the Future*. New York: The Haworth Hospitality Press, pp. 10–11.
- Clark, G. (2006). *City to City Cooperation in Tourism*. Paper presented at the Edinburgh – Glasgow Tourism Cooperation Conference, pp. 27–28.
- Copp, C. B., Ivy, R. L. (2001). Networking Trends of Small Tourism Businesses in Post-Socialist Slovakia. *Journal of Small Business Management*, 39(4), 345–353. DOI: 10.1111/0447-2778.00031.
- Czernek, K. (2013). Determinants of Cooperation in a Tourist Region. *Annals of Tourism Research*, 40, 83–104. DOI: 10.1016/j.annals.2012.09.003.
- Dredge, D. (2006). Policy Networks and the Local Organisation of Tourism. *Tourism Management*, 27(2), 269–280. DOI: 10.1016/j.tourman.2004.10.003.
- Fagence, M. (1996). Regional Tourism Cooperation. *Annals of Tourism Research*, 23(3), 717–720. DOI: 10.1016/0160-7383(96)84664-0.
- Fennell, D. A. (2006). Evolution in Tourism: The Theory of Reciprocal Altruism and Tourist– Host Interactions. *Current Issues in Tourism*, 9(2), 105–124. DOI: 10.1080/13683500608668241.
- Fernández-Ardèvol, M., Lladós Masllorens, J. (1984). Determinants of Science-Based Cooperation: Evidence in a Sample of Small and Micro Firms. *Managing Global Transitions*, 9(4), 319–333.
- Ford, D. et al. (2003). *Managing Relationships*. Chichester: Wiley.
- Freel, M. S., Harrisom, R. T. (2006). Innovation and Cooperation in the Small Firm Sector: Evidence from Northern Britain. *Regional Studies*, 40, 289–305. DOI: 10.1080/00343400600725095.

- Fyall, A. et al. (2001). Scottish Visitor Attractions – A Collaborative Future? *International Journal Tourism Research*, 3(4), 211–228. DOI: 10.1002/jtr.313.
- Getz, D., Jamal, T. B. (1994). The Environment-Community Symbiosis: A Case for Collaborative Tourism Planning. *Journal of Sustainable Tourism*, 2(3), 152–173. DOI: 10.1080/09669589409510692.
- Go, F. M., Williams, A. P. (1993). Competing and Cooperating in the Changing Tourism Channel System. *Journal of Travel and Tourism Marketing*, 2(2/3), 229–48. DOI: 10.1300/J073v02n02\_14.
- Gray, B. (1985). Conditions Facilitating Inter-organizational Collaboration. *Human Relations*, 38, 911–936. DOI: 10.1177/001872678503801001.
- Gray, B. (1989). *Collaborating: Finding Common Ground for Multiparty Problems*. San Francisco: Jossey-Bass.
- Hair, J. F. et al. (2010). *Multivariate Data Analysis*. 7th Ed. Upper Saddle River, New Jersey: Prentice Hall.
- Hall, C. M. (1994). *Tourism and Politics, Policy, Power and Place*. Chichester: Wiley.
- Huybers, T., Bennett, J. (2003). Inter-Firm Cooperation at Nature-Based Tourism Destinations. *Journal of Socio-Economics*, 32(5), 571–587. DOI: 10.1016/j.soc.2003.08.011.
- Hwang, L. J., Lockwood, A. (2006). Understanding the Challenges of Implementing Best Practices in Hospitality and Tourism SMEs. *International Journal*, 13(3), 337–354. DOI: 10.1108/14635770610668820.
- Jamal, T., Stronza, A. (2009). Collaboration Theory and Tourism Practice in Protected Areas: Stakeholders, Structuring and Sustainability. *Journal of Sustainable Tourism*, 17(2), 169–189. DOI: 10.1080/09669580802495741.
- Kumar, K., van Dissel, H. G. (1996). Sustainable Collaboration: Managing Conflict and Cooperation in Interorganizational Systems. *MIS Quarterly*, 20(3), 279–300. DOI: 10.2307/249657.
- Lemetyinen, A., Go, F. M. (2009). The Key Capabilities Required for Managing Tourism Business Networks. *Tourism Management*, 30(1), 31–40. DOI: 10.1016/j.tourman.2008.04.005.
- Morrison, A. et al. (2004). International Tourism Networks. *International Journal of Contemporary Hospitality Management*, 16(3), 197–202. DOI: 10.1108/09596110410531195.
- Mulford, C. L., Rogers, D. L. (1982). Definitions and Models, in Rogers D. L., Whetten D., eds., *Interorganisational Coordination: Theory, Research and Implementation*. Ames, IA: Iowa State University Press, pp. 9–13.
- Ndou, V., Passiante, G. (2005). Value Creation in Tourism Network Systems, in Frew, A. J., ed., *Information and Communication Technologies in Tourism*. Wien: Springer Vienna, pp. 440–451. DOI: 10.1007/3-211-27283-6\_40.
- Palakshappa, N., Gordon, M. E. (2007). Collaborative Business Relationships: Helping Firms to Acquire Skills and Economies to Prosper. *Journal of Small Business and Enterprise Development*, 14(2), 264–279. DOI: 10.1108/14626000710746691.
- Palmer, A., Bejou, D. (1995). Tourism Destination Marketing Alliances. *Annals of Tourism Research*, 22(3), 616–629. DOI: 10.1016/0160-7383(95)00010-4.
- Plummer, R. et al. (2006). How Are We Working Together? A Framework to Assess Collaborative Arrangements in Nature-based Tourism. *Current Issues in Tourism*, 9(6), 499–515. DOI: 10.2167/cit284.0.
- Roome, N. (2001). Conceptualizing and Studying the Contribution of Networks in Environmental Management and Sustainable Development. *Business Strategy and the Environment*, 10(2), 69–76. DOI: 10.1002/bse.276.

- Scott, N., Laws, E. (2010). Advances in Service Networks Research. *The Service Industries Journal*, 30(10), 1581–1592. DOI: 10.1080/02642060903580623.
- Selin, S. (1999). Developing a Typology of Sustainable Tourism Partnerships. *Journal of Sustainable Tourism*, 7(3), 260–273. DOI: 10.1080/09669589908667339.
- Selin, S. W. (1993). Collaborative Alliances: New Inter-organizational Forms in Tourism. *Journal of Travel and Tourism Marketing*, 2(2), 217–227. DOI: 10.1300/J073v02n02\_13.
- Soriano, D. R. (2005). The New Role of the Corporate and Functional Strategies in the Tourism Sector: Spanish Small and Medium-Sized Hotels. *Business*, 25(4), 601–613. DOI: 10.1080/02642060500092469.
- Timothy, D. J. (1998). Cooperative Tourism Planning in a Developing Destination. *Journal of Sustainable Tourism*, 6(1), 52–68. DOI: 10.1080/09669589808667301.
- Todtling, F., Kaufmann, A. (1999). Innovation Systems in Regions of Europe -A Comparative Perspective. *European Planning Studies*, 7(6), 699–717. DOI: 10.1080/09654319908720549.
- Vernon, J. et al. (2005). Collaborative Policymaking. *Annals of Tourism Research*, 32(2), 325–345. DOI: 10.1016/j.annals.2004.06.005.
- Wang, Y. et al. (2007). Destination Marketing: Competition, Cooperation or Coopetition? *International Journal of Contemporary Hospitality Management*, 20(2), 126–141. DOI: 10.1108/09596110810852113.
- Watkins, M., Bell, B. (2002). The Experience of Forming Business Relationships in Tourism. *International Journal of Tourism Research*, 4(1), 15–28. DOI: 10.1002/jtr.337.
- Weidenfeld, A. et al. (2011). The Role of Clustering, Cooperation and Complementarities in the Visitor Attraction Sector. *Current Issues in Tourism*, 14(7), 595–629. DOI: 10.1080/13683500.2010.517312.
- Wood, D. J., Gray, B. (1991). Towards a Comprehensive Theory of Collaboration. *The Journal of Applied Behavioral Science*, 27(2), 139–162. DOI: 10.1177/0021886391272001.