INTERORGANIZATIONAL COOPERATION IN SPORT TOURISM: A SOCIAL NETWORK ANALYSIS

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Background and aim
In many regions sport tourism has the potential to foster socio-economic development. However, due to a heterogenous set of actors involved, regional sport tourism (RST) is complex in terms of management (Wäsche & Woll, 2010). To benefit from sport tourism and to avoid negative impacts, cooperation among organizations from different sectors and with differing interests (i.e. stakeholders) is crucial. However, prior research has shown that cooperation in RST is underdeveloped (e.g. Devine, Boyd, & Boyle, 2010; Weed & Bull, 2004). The aim of this paper is to map and explain cooperative structures within a RST network. Therefore, conditions under which cooperative relationships form were studied. Furthermore, it was analyzed which structural (network-related) and attributive (actor-related) effects are significant mechanisms for interorganizational cooperation in RST.

Method
In a cross-sectional social network analysis, the relational structures underlying the sport tourism program of two neighboring communities at Lake Constance in Southwestern Germany were analyzed. Both communities are marketed jointly as a tourist destination. The actors contributing to the sport tourism program were identified through tourist brochures and interviews with tourism officials. In total, the analyzed network consisted of 25 actors. Based on an online survey the network organizations were asked about cooperative relations (i.e. network ties) to all other organizations. Information exchange and various forms of collaboration were considered as cooperative relations. Furthermore, the participants provided information about organizational attributes and individual perceptions concerning cooperation within the network. Through the application of network-analytical methods, descriptive network measures were calculated and corresponding network visualizations were produced. For the purpose of inferential network analysis, an Exponential Random Graph Model (ERGM) was estimated to test hypotheses regarding particular patterns of network tie formation (Robins, Pattison, Kalish, & Lusher, 2007).

Results
The majority of the 25 network organizations stated to be profit-oriented (60%) and most were based in the sport sector (64 %). Furthermore, most of the organizations considered it to be important or very important to be involved in the RST network (56%). Within the network, 24 of the 25 organizations realized ties of cooperation. In total, 60 ties were present, resulting in a network density of 0.2. The most active actors, based on degree centrality, were a private sports agency and the local tourism organization. Concerning betweenness centrality or the extent to which an organization links other organizations, the sports agency and a private bathing beach appeared to be the most central actors. The statistical network analysis using an ERGM revealed three significant structural effects. For edges (i.e. ties) the parameter estimate showed to be negative and significant (−3.80, *SE* = 0.87). The parameter estimates for multiple triangulation (0.81, *SE* = 0.28) and multiple connectivity (0.15, *SE* = 0.07) were also significant but positive. The estimate for network centralization was not significant. Concerning organizational attributes, a positive and significant homophily effect (1.60, *SE* = 0.61) for organizations with the same aim in terms of a for-profit or non-profit orientation was found. Other homophily or activity effects (sector, importance of involvement) were non-significant. Lack of time was the most frequently reported barrier to cooperation (68%). The development of new and useful contacts was most often expected or experienced as an advantage of network cooperation, while loss of time was expected to be the greatest disadvantage.

Discussion
The results highlight particular network characteristics and enable a deeper understanding of the functioning and organization of RST networks. A private sports agency was identified to be the most central or focal actor of the network. However, the local tourism organization, as destination management organization, held also a central position. By applying an ERGM, endogenous and exogenous networks effects of tie formation were identified. It was shown that cooperative ties in the RST network are sparse and that there are tendencies for transitive triangles of cooperation and substantial network brokerage. Preferential attachment, as often observed in real world networks, was not present. A tendency of for-profit and non-profit organizations to cooperate with organizations pursuing the same goal was found. Other attributes had no effect on tie formation. Furthermore, time appeared to be a key aspect concerning cooperation. The analysis sheds light on conditions of network formation and significant mechanisms for interorganizational cooperation in RST, which can be utilized for managing RST. Moreover, the study introduced a new method to the analysis of cooperation in sport tourism and adds to qualitative studies in this field of research.

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