

A CASE FOR USING OF SOCIAL NETWORK ANALYSIS IN TOURISM MARKETING STUDIES.

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The aim of this research note is to present an overview of the application of social network analysis in tourism marketing studies. The objectives are to discuss the application of this research tool in field of tourism marketing studies, identify theoretical benefits, main contributors and core research streams. Based on these, we present relevant research gaps and the identification of research opportunities for future application of social network analysis in tourism marketing studies.

Keywords: *Social Network Analysis, Tourism Marketing*

INTRODUCTION

Tourism can be considered a fragmented, complex, transversal, relational phenomenon, involving multiple stakeholders, from multiple sectors, public, private and hybrid entities. Organizational networks have been identified as an appropriate governance model for tourism. First, it is one of the economic sectors incorporating greatest diversity of activities, sectors, organizations and partnerships (Jesus & Franco, 2016). The majority of tourism firms are micro or small-sized enterprises with limited resources, thus they need to develop formal and informal interorganizational collaboration (Ying, Norman & Zhou, 2016). Second, considering the multitude of actors involved, the relationships between stakeholders are hard to manage, limiting the forms of governance that could be successfully applied. Organizational networks facilitate stakeholder participation,

contribute to improve the quality of the service being offered and also facilitate inter-organizational learning, innovation diffusion and knowledge sharing, including the transmission of marketing data. Finally, organizational networks constitute a viable alternative to public sector management of the tourism sector and respond to an outcry for a more managerial perspective on governance for the sector in which the role of the government is restricted to act as a network broker (Van der Zee & Vanneste, 2015).

Social network theory is a useful approach for tourism studies because it is perfectly adapted to the study of the tourism phenomenon where networks assume capital importance. Network theory facilitates the understanding of the structure and the interactions between stakeholders, including leadership and influence between actors (Tran, Jeeva & Pourabedin, 2016) and allows processes for the transmission of resources, customers, information and knowledge to be evaluated (Merinero-Rodríguez & Pulido-Fernandez, 2016). Under this perspective, analyses are conducted on patterns of relationships rather than concentrating upon the attributes and behaviors of single individuals or organizations.

THEORETICAL CONTEXT

SNA uses a set of tools and techniques to analyze how the topological or structural properties of networks influences its overall dynamic and can be used to explain a wide number of processes, including the formation of opinions, leadership, influence, diffusion of information as well as the robustness of the system to external shocks.

A network is a set of actors connected by a set of ties. The actors, often called *nodes*, can be persons, teams, organizations, concepts, etc. Ties connect pairs of actors and can be directed (i.e., potentially one-directional, as in giving advice to someone) or undirected (as in being physically proximate) and can be dichotomous or valued (Borgatti & Foster, 2003). A network is normally represented by a drawing in which the various elements are shown as dots and the connections among them as lines linking pairs of dots. This drawing, a mathematical abstraction, is called a graph and the branch of mathematics known as graph theory establishes the framework providing the formal language to describe it and its features (Baggio,

Scott & Cooper, 2010). The graph can also be represented by a square adjacency matrix. The identification between the graph and the adjacency matrix makes the methods of linear algebra available to network analysis. The multi-disciplinary origin of network science has led to a wide variety of quantitative measurements of their topological characteristics.

The basic assumption of social network theory is that the structure of social interactions (relationships) influences individual decisions, beliefs and behavior of individuals or organizations. To study social networks various methods of analysis have been employed, including qualitative approaches and quantitative methods. Network analysis has its origin in three research streams: i) the socio-metric perspective, that developed the graph theory; ii) the Harvard perspective, which pioneered the use of inter-relational models and cliques and, after 1970, developed the algebraic models of network analysis and; iii) the anthropologist perspective of the Manchester School, which focused on the analysis of structural relations (Nogueira & Pinho, 2015).

SNA has undergone major application in social sciences in recent decades because of its capacity to analyze the mathematical properties of patterns of social interactions, shaping structural research on social phenomena (Merinero-Rodríguez & Pulido-Fernandez, 2016). Network analysis has been employed in sociology, political sciences, geography, business and management studies.

SOCIAL NETWORK ANALYSIS IN TOURISM MARKETING STUDIES

For the purpose of this analysis, tourism marketing is understood according to the definition proposed by Dolnicar and Ring (2014), which is an adaptation to tourism of Grönroos' (2006) notorious conceptualization of marketing.

Customer focus that permeates organizational functions and processes and is geared towards making promises relating to products and services required when travelling to and staying in places outside one's usual environment for leisure, business

and other purposes for less than one year, enabling the fulfilment of individual expectations created by such promises, and fulfilling such expectations through support to customers' value-generating processes. (Dolnicar & Ring, 2014, p.44)

This definition implies that organizations' marketing processes consist of making promises, enabling such promises and fulfilling expectations that tourist consumers develop based on the promises made. Knowledge generated through tourism marketing research can therefore be classified into the content areas of making, enabling or keeping promises (Dolnicar & Ring, 2014).

From a marketing perspective, SNA has been applied in several research areas, including: i) the analysis of distribution channels (e.g. Tran et al., 2016; Feige, 2013); ii) consumer behavior (e.g. Ronchetto, Hutt & Reingen, 1989; Benoit & Van Den Poel, 2012; Iacobucci, Henderson, Marcati & Chang, 1996); iii) word-of-mouth (e.g. Williams, Inversini, Buhalis & Ferdinand, 2015; Groeger & Buttle, 2016; Goldenberg, Libai & Muller, 2001); iv) promotion and communication (e.g. Zhang, Bhattacharyya & Ram, 2016) v) relationship marketing (e.g. Iacobucci & Ostrom, 1996; Mattsson, 1997; Achrol, 1997); vi) leadership and influence (e.g. Al-garadi, Varathan & Ravan, 2016; Faraj, Kudaravalli & Wasko, 2015) and ; vii) new product development and adoption (e.g. Banica, Brinzea & Radulescu, 2015; Lee, 2015).

In tourism marketing studies, the application of SNA is still limited and mostly relates to research about stakeholder involvement in destination marketing, destination image or branding (e.g. Aarstad, Ness & Haugland, 2015; Cakmak & Isaac, 2012; Marzano & Scott, 2009; Mazanec, 2010; Nogueira & Pinho, 2015; Sheehan, Ritchie & Hudson, 2007), thus it can be classified in the content areas of making and enabling promises. No studies were found that actually draw upon the evaluation of tourism networks, including its capacity to fulfill marketing promises, for example by trying to quantify the objective benefits of tourism networks. Most studies adopt a more descriptive perspective, explaining how stakeholders interact to marketing places and the structure and types of interactions established.

The argument in favor of the application of SNA in tourism marketing studies is supported by the importance of marketing interactions in the sector. Nogueira and Pinho (2015) used SNA to study stakeholder interactions in a Portuguese National Park (Peneda-Gerês), founding that marketing information interactions were the most dense among local stakeholders.

Some literature links the mathematical properties of tourism networks with marketing strategies. For example, Aarstad et al. (2015) applied SNA, combined with surveys, to research co-branding practices in a destination context, concluding that interfirm network position (closeness centrality) is related to the use of the destination brand as an explicit marketing strategy. Once again, the nature of these studies is predominantly descriptive, not prescriptive.

SNA has also been used in tourism marketing studies to research the effect of online word-of-mouth (eWOM) in consumer behaviour. Williams et. al. (2015) using a combination of SNA and content analysis examines eWOM in twitter relayed with a tourism destination (Bournemouth) when a festival (Bournemouth Air Show 2013) occurred, founding that key users are usually prominent individuals and that festivals act as both a direct generator as well as an online animator of eWOM about tourism destinations. In another example, Money (2000) used network analysis to study eWOM referrals in the business of corporate travel services, founding that culture has more impact than location in the referral process.

These examples illustrate how marketing networks are important in tourism, from both the supply and demand perspectives, and how the study of network relationships, trough SNA, can be instrumental to advance knowledge about tourism marketing. However, research using SNA in tourism marketing studies is still scarce, a paradox that may be related with the relative novelty of this research technique in social studies.

Although SNA has been consensually applauded as an important research tool in tourism research, there are also some critics in the literature. Some authors raise questions about the epistemological legitimacy of applying network analysis, a methodology grounded on mathematics and physics, to a social activity such as tourism (Baggio et al., 2010).

On many occasions full enumeration of data regarding a network is not possible, especially for social and economic systems, and this is certainly the case for a tourism destination (Baggio et al., 2010). Networks are difficult to define, they can be formal or informal, and their elements can belong to more than one network simultaneously (Jesus & Franco, 2016). Furthermore, most literature focuses on the relationships or networks within a specific tourism destination whereas the stakeholders in tourism can be located in different locations and not necessarily in the same tourism destination (Tran et al., 2016).

Another potential weakness of mathematically based network analysis is that “snapshots” of a situation do not allow for an understanding of network development over time (Albrech, 2013; Tran et al., 2016). Most studies research networks form a static perspective failing to address the dynamic nature of tourism.

RESEARCH OPPORTUNITIES

Empirical studies unpacking the roles of network relationships in destination marketing remain exploratory and single case-based. Multi comparative studies are needed to uncover patterns and generalize conclusions. There is also the need to ascertain how qualitative and mathematical properties of networks combine and to analyze their impact on tourism activity (Merinero-Rodríguez & Pulido-Fernandez, 2016). In addition, analyzing network dynamics with the consideration of time is suitable for the network analysis where actors are changing frequently. There is still a lack of research of relationship dynamics in networks (Tran et al., 2016).

Place attractions, which are managed by public and private entities, can be understood as individual nodes in a social network that can establish relationships to promote, market and brand places. Research is needed to understand the structural linkage between such tourism social networks and destination image and destination branding.

Finally, the recent evolution of marketing theory to a service-dominant (S-D) logic (Vargo & Lusch, 2004) can also represent research opportunities for tourism marketing research. For example, SNA could be used to study some fundamental premises of SD-logic

applied to tourism such as that value is cocreated by multiple actors, including the beneficiary (visitor or tourist).

CONCLUSION

Organizational networks have been identified as an appropriate governance model for tourism because of its complex nature. Considering that networks are a natural form of organization of the industry, social network theory can be considered a useful approach for tourism studies since it allows the understanding of the structure and the interactions between key tourism stakeholders. SNA constitutes an increasingly applied research tool in both tourism studies and marketing. However, in tourism marketing studies, the application of SNA is still limited and mostly related to research about actors' involvement in destination marketing, destination image or branding. The scarcity of tourism marketing studies using SNA contrasts with the significant potentialities of this research tool, a paradox that could be related with the relative novelty of this research technique in social studies.

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