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A Relational Approach to Networks in a Tourism Destination: Business and Family Networks in San Vito Lo Capo, Sicily

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This article constructs a relational framework using the principles of the Network Approach to examining the business exchange structure of a tourist destination. Network Analysis is the methodology to analyse the metrics of collaboration and cooperation among destination companies. The model was applied in a remote tourist destination named San Vito Lo Capo on the island of Sicily, where tourism has significantly expanded in the last twenty years. The focus is on how groupings of small companies within family relations can govern and be responsible for tourism destination cooperation. As the main result, the existence was identified, of a relational framework where three clusters of families with a high density of exchanges emerge. These families can influence the tourism business at the destination, guaranteeing cooperation among other business companies. The findings show the existence and the importance of informal business networks and the contribution of Network Analysis to understanding the structure and cohesiveness of a tourist destination.

Key Words: social network analysis, tourism destination, tourism business

Introduction

A whole series of reasons and arguments seem to be supporting the current theoretical rise of Networks. Hall (2005:179) defines a network as 'an arrangement of inter organisation cooperation and collaboration'. Tourism is a complex phenomenon (Van der Zee & Vanneste, 2015) and this complexity is derived from constant and temporal interactions between Supply and Demand. Therefore, tourists perceive this conglomerate of services as a holistic and comprehensive experience (Buhalis, 2000; Haugland *et al.*, 2011; Van der Zee & Go, 2013). Consequently, on-site tourist activity is perceived as a mix of public and private stakeholders that offer services, information, equipment and infrastructures (Gunn, 1977; Bramwell & Lane, 2000; Jamal & Getz, 1995).

The growing integration of stakeholders, generating the vision of a 'shared and integrated tourist destination' in the current literature, promotes the adoption of a 'Network Approach'. In this way, it is possible to understand business company relationships better (Provan & Kenis, 2008), providing benefits for destination management future evolution (Morrrison *et al.*, 2004; Novelli *et al.*, 2006) and public agents (Vargo & Lusch, 2004).

Better and greater coordination and integration of the Supply that leads to greater satisfaction of the Demand will be essential, both for tourist destination development and for the management of touristic development processes (Albrecht, 2013), thereby increasing competitiveness (Cowley *et al.*, 2007).

For some authors, the configuration of business networks can allow participating tourism companies to share knowledge and gain social capital by improving their competitive position (Sorensen, 2007; Halme, 2001). Improvement is derived from reduced transaction costs and added value generation (Fuglsang & Eide, 2013; Tinsley & Lynch, 2001). By ordering and better-combining relationships between stakeholders, participation in a network can generate critical competitive advantages (Saxena, 2005). For tourist destination studies, the focus of networks research is on inter-company interactions as the relationship between managers (Van der Zee & Vanneste, 2015:52). In this paper, a Network Analysis model was applied in a remote tourist destination named San Vito Lo Capo in Sicily, where tourism has significantly expanded in recent years.

The focus of the paper is on how groupings of small firms with family relations can govern and be responsible for tourism destination cooperation. The findings suggest that informal interactions based on social, economic and cultural proximity are more likely to produce positive results for the Network (Zach & Racherla, 2011).

Literature Review - Tourism Destination Network: a Theoretical Background

Far back in 1942, in their *Outline of General Tourism Science* (published in German) Walter Hunziker and Kurt Krapf defined Tourism as:

the sum of the phenomena and relationships arising from the travel and stay of non-residents, in so far as they do not lead to permanent residence and are not connected with any earning activity.

Since this tourism has been considered as a global, complex, and organic phenomenon. The authors represented tourism as a dynamic and relational tourist matrix, where the relationships and the interactions among the involved subjects, the resources and the interests are essential to explain both the origin and the development of tourist activities.

Though relationality in the tourism sector can be considered from different theoretical perspectives, our analysis in this paper will focus on the importance of social networks for understanding the structure and relationship in a tourist destination. Following the work of Laumann, Galaskiewicz and Marsden (1978), social networks could be viewed as a set of knots which could be individuals and organisations linked through specific social relationships. From this point of view, each tourist destination could be considered as a network of connections between subjects belonging to the destination, which, in the end, represent the local tourist system. In more recent times, the proliferation of studies focused on social networks in tourism is increasing (Camprubí, Guida & Comas, 2009; Bhat & Milne, 2008; Dregde, 2006; Novelli, Smith & Spencer, 2006; Shih, 2006).

All of these authors consider that the tourist industry at the destination consists of different activities (accommodation, transport and food and beverage), including those of a

complementary nature (entertainment and customised services) and support activities (institutions, public administrations and so on). Combining these activities can generate an integrated supply of tourist products to satisfy different needs and preferences. Hence, it follows that, from a social network point of view, coordination, cooperation, and interaction between tourist operators are fundamental. Local operators must work together in an integrated way because the competitiveness of a destination, based on an integrated supply of goods and services capable of meeting demand, derives from this (Comas, 2005; Tynsley & Linch, 2001). In this context, opportunities are managed for local enterprises that are well acquainted with the existing local tourist resources (Torraleja & Martos, 2003). These enterprises are usually family-run businesses, as is the case for the great majority of tourist companies all over the world (Ryan & Mottiar, 2007; Torraleja & Martos, 2003; Getz & Carlsen, 2005; Getz et al., 2005; Jaafar et al. 2010; Hallak, Assaker, & O'Connor, 2014; Zapalska & Brozik, 2014).

Currently, the world economy shows the significant presence and importance of family-run businesses, usually SMEs, which include tourist enterprises. Nonetheless, tourism represents a fundamental economic sector (Dyer & Handler, 1994; Rogoff & Heck, 2003; Denison et al., 2004; Sharma, 2004; Danes et al., 2008; 2009; Marín, et al., 2016) which it has not received the attention it deserves from a theoretical point of view (Gersick et al. 1997; Chua et al., 1999). Tourism depends on the prevalence of 'micro' enterprises and the peculiarity of their management: profit is not the central aspect of their existence; there is a sharing of responsibility, and children are involved in the family business. These aspects and problems linked with succession and inheritance issues (Getz et al., 2005) have limited the this kind of business. Likewise, the operational limits of family management, i.e., risk aversion, the low level of professionalisation, nepotism, poor quality of the services offered and so on (Shaw & Allan, 1998; Shaw, 2014), are closely linked with the figure of the 'owner-operator' typical of Anglo-Saxon culture.

Moreover, limitations deriving from the seasonality of tourist campaigns could negatively affect the profitability of family-run tourist SMEs, which could be considered a secondary source of income by the owners, thus limiting their development and improvement in quality (Getz *et al.*, 2005). In this paper, the research questions to be addressed are:

What is the structure of network relations within a tourist destination?

What is its extension?

To what extent are probable family ties important? We have structured this paper into three sections to answer these and other questions.

Methodology - Network Analysis

The production of goods and services at a tourist destination implies cooperation between the different stakeholders (Selin & Chavez, 1995; Hall, 1999; Bramwell & Lane, 2000; Selin, 2000). The presence or the absence of these relationships, formalised or not, represents the network of a tourist destination (Tinsley & Lynch, 2001; Copp & Ivy, 2001; Halme, 2001).

In international tourism literature, new research has emerged in recent years. This analyses destinations by moving from the older hypothesis that they are a set of elements strictly connected (Leiper, 1990; Carlsen, 1999). There is an implied need to find tools and methods to study the tourist destination focusing on the relationships between the different elements of the destination. *Social Network Analysis* (SNA) is the answer to this need (Baggio, 2008). Social network theory is an interdisciplinary methodology developed in sociology; which has been implemented through the contribution of mathematicians, statisticians and computer scientists who have developed and formalised a range of technical features, making it practical to represent relational networks in the economic field.

This methodology makes it possible to understand how a network is articulated by studying the stakeholders' attributes and the network's composition. Analysis of the differences in how stakeholders are connected is used to understand the players' characteristics and behaviours (Scott 2017). Multiple ties imply that people can more easily share the rules that favour economic networking until conformity with values and institutional practices is achieved (Di Maggio & Powell, 2000; Scott & Meyer, 1992). If the relationship density at a destination increases,

communication becomes more efficient (Rowley 1997), encouraging conformity and inclusion and allowing a destination's cohesion (Pavlovich 2003).

Alternatively, a low-density network tends to internally develop a small number of core elites with strongly interconnected players and the remaining players with a smaller number of ties (Scott 1992). The multidisciplinary origin of SNA has led to the creation of a wide range of quantitative measurements which allow the identification of the main features of the network (Scott, 2000). The indexes used are:

- i. *Network Density*. This is a ratio of the number of ties present, related to the maximum possible number of lines. This index varies from 0 to 1, 1 being the density of a graph in which all the players are interconnected
- ii. *Ist-order Neighbourhood*. The neighbourhood of an actor is the set of actors they are connected to together with the actors that are related to them. An ego-centred network is a subgraph induced by a group of neighbours. The network consists of all the neighbours and the connections between them. The idea of an ego network can be extended to a group of actors, and the neighbourhood is simply the union of the areas of the group.
- iii. *Clustering Coefficient.* The Clustering Coefficient of an actor is the density of its open neighbourhood. The overall clustering coefficient is the mean of the clustering coefficient of all the actors.

The weighted overall clustering coefficient is the weighted mean of the clustering coefficient of all the actors, each weighted by its degree. It is calculated as the ratio between the actual number of links connecting the neighbourhood (the nodes immediately connected to a chosen node) of a node and the maximum possible number of links in that neighbourhood.

iv. *Structural Holes.* These separate different actors who are not connected, and represent the absence of ties between two parts of the network. This variable is obtained by subtracting 1–Constraint. The Constraint is obtained through Burt's formula (1992). The constraint measures the extent to which

the ego is tied to connected people, thereby creating redundancy in the ego's local network.

- v. Network Centrality. This is measured using the 'normalised eigenvector' proposed by Bonacich (1972). This measure of centrality captures the critical feature that an ego's status and power in a network is a function not only of how many actors they are tied too but also how high in centrality (and consequent status and power) each of these actors is. That is, a high value is given to an actor who is connected to many actors who are themselves also well-connected. The defining equation of an eigenvector is $\lambda v = Av$, where A is the adjacency matrix of the graph, λ is a constant (the eigenvalue), and v is the eigenvector. The equation lends itself to the interpretation that a node with a high eigenvector score is adjacent to nodes that are themselves high scorers (Borgatti, 1995).
- vi. *Betweenness Centrality*. This views a node as being in a favoured position to the extent that the actor falls on the geodesic paths between other pairs of actors in the network. Let b_{ik} be the proportion of

- all geodesics linking vertex j and vertex k which pass through vertex i. The betweenness of vertex i is the sum of all b_{jk} where i, j and k are distinct. Betweenness measures the number of times a vertex occurs on a geodesic. To be precise, suppose that $g_i^{(st)}$ is the number of geodesic paths from vertex s to vertex t that pass through s, and suppose that s is the total number of geodesic paths from s to s. Then, the betweenness of vertex s is, where s is the total number of vertices in the network (Freeman 1979).
- vii. *Normalised Betweenness Centrality*. This is the betweenness divided by the maximum possible betweenness expressed as a percentage. For a given network with vertices v1....vn and maximum betweenness centrality cmax, the network betweenness centralisation measure is S (cmaxc(vi)) divided by the maximum value possible, where c(vi) is the betweenness centrality of vertex vi (Freeman 1979).
- viii. *Geodesic Distance* calculates the length of the shortest path connecting two points.
- ix. Average Distance is the average geodesic distance.



The Remote Destination and Model Application

Local tourism production, especially in the case of remote destinations, necessarily implies relationships among the existing operators (Czernek, 2013; Baggio, 2011; Beritelli, 2011). A widespread presence of micro-businesses mainly characterises remote tourist destinations. The network analysis model was applied in a remote tourist destination named San Vito Lo Capo in Sicily, where tourism has significantly expanded in the last twenty years. San Vito Lo Capo is a small tourism destination, geographically surrounded by a group of mountains and accessible only through a single road. It is famous mainly as a seaside destination and tourism flows are concentrated during the summer. Tourism in this remote destination emerged measurably in the 1990s, and since then, it has grown constantly, from 134,507 overnight stays in 1996 to 601,885 in 2016. Focusing on tourism demand, we can also observe the number of arrivals in the last twenty years and the emerging trend. Over the years, S. Vito Lo Capo has created a widespread accommodation capacity consisting of private accommodations, houses and villas owned by residents who are part of a type of hospitality called 'non-traditional'. The more traditional tourism facility supply has also developed since 1996.

The study of this tourist destination, focusing on its relations, could provide interesting insights for developing appropriate policies and strategies to increase the tourism supply's level of integration.

The aim is to verify the existence of any form of cooperation among local enterprises and to identify a potential general framework that could be considered a model to apply. This should then be viewed as a pattern for reaching the right degree of cooperation among the local operators and supporting long-term development.

The central proposition is to better understand the family network's impact on commercial relations. The analysis was conducted in two steps.

- a. The first question was to analyse the structure of family relationships in San Vito Lo Capo to understand the nature, extent and possible existence of pivotal families who drive and coordinate existing family relationships.
- b. The second question led us to study if the role of the family is fundamental in the relational context of tourist destinations.

The analysis was performed using Ucinet 6 software (Borgatti, Everett & Freeman, 2002). The unit of the research analysis is the set of tourist enterprises existing in the municipality of San Vito Lo Capo (N). The group of companies was observed regarding the firm to firm relational links (R) at the destination.

While recognising the existence of different links between local and external enterprises, we focused only on the relationships between local enterprises by containing the observation unit. As regards the boundaries of the community, an 'external' definition of the boundary was adopted based on the classification codes of the enterprises that belong to the accommodation, catering, transport, and tourist categories (see Table 1) (definition of Tourist-cultural chain by *Ministry of Economic Development 2018*), though recognising that there are many ties between the players in the community and the external environment.

Table 1: Relative Clusters			
Description	Components		
Family 1	HAC 1; HAC 30; HAC 23; HAC 28; CAC 3; RES 15; HAC 17; HAC 5*		
Family 2	AAC 6; RES 1; AAC 14; AAC 9**; HAC 7; HAC 4; HAC 2		
Family 3	RES 2; AAC 7; AAC 5; HAC 31; AAC 1		

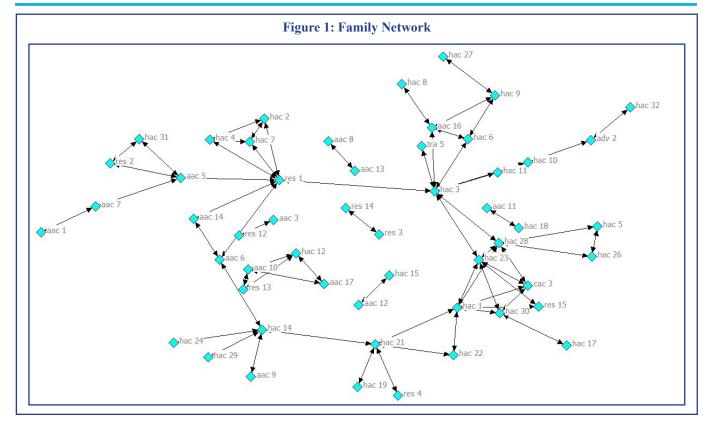
Legend: HAC= Hotels and similar establishments;

AAC= Room rentals for short stays, vacation homes and apartments, B&B, apartments, housing connected to farms;

RES= Restaurants with service;

CAC= Camping grounds and areas for campers and trailers.

* in-law of hac 28 / ** in-law of aac 6



A questionnaire was administered to the actors of the network. Each questionnaire was given to the owner of the enterprise. Each respondent was asked:

- i. Name of owner
- ii. Gender
- iii. Age
- iv. Education level
- v. Participation in trade associations
- vi. Which enterprises do you have commercial relationships with during the year to realise the tourist services provided to your customers (overnights, transfer, excursions, food and beverage, suggestion / advice for other structures, entertainment services...)? (a list of all enterprises present within the tourist destination was provided)
- viii. Which owners of the following enterprises are you related to? (a list of all the enterprises within the tourist destination has been provided).

The answers of the operators were collected and included in two different matrices:

i) the commercial matrix: this elaborates the data concerning the question on commercial relationships;

ii) the *relative matrix* elaborates the data concerning family relations between enterprises for analysing.

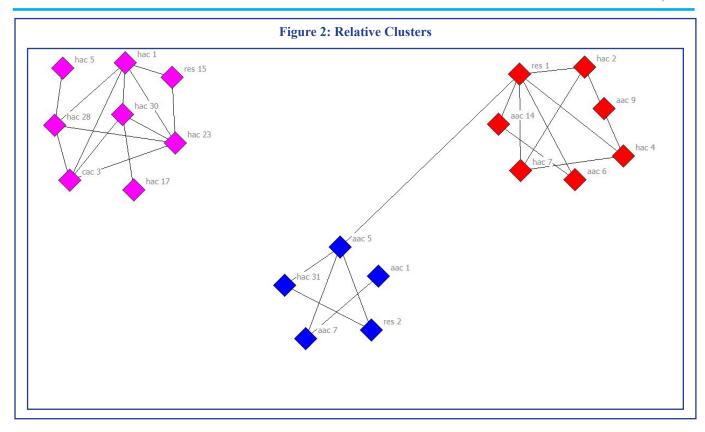
Destination Analysis

The analysis carried out within the territorial context of the tourist destination of San Vito Lo Capo highlighted the existence of a network of enterprises whose owners are linked by family ties (Figure 1).

In particular, 66.25% of actors at the destination feature various family ties. Calculating the density index on all those related by family ties, it is noted that it equals 0.0472. This low value can be explained by considering that, on average, each node of the family network has about two links, and at least one is a neuralgic node. This can be seen from the application of the structural holes index¹.

Analysing the characteristics of this network, we realise that the branches of the network originate from some clusters that present much denser relationships within them (see Figure 1). We can highlight three families composed according to the activity carried out. In this

1 there are three couples of companies that are disconnected from the family relational network and four companies are independent family units.



way, we identified these families showing a high-density value of 0.50; 0.57 and 0.60 (see Table 1 & Figure 2).

As can be seen from Table 1, the first family, the largest, is made up of 8 members:

6 of them carry out an activity that is part of the category 'Hotels and Similar Establishments'; 1 of them carries out an activity that is part of 'Restaurants with Service'; 1 member carries out an activity that is part of 'Camping Grounds and Areas for Campers and Trailers').

The second family is made up of 7 members:

3 of them carry out an activity that is part of the category 'Hotels and Similar Establishments';

3 of them carry out an activity that is part of 'Room Rentals for Short Stays, Vacation Homes and Apartments, B&B, Apartments, Housing Connected to Farms'; 1 member carries out an activity that is part of 'Restaurants with Service'.

Finally, we find the third family is made up of 5 members:

3 of them carry out an activity that is part of 'Room Rentals for Short Stays, Vacation Homes and Apartments, B&B, Apartments, Housing Connected to Farms'; 1 member carries out an activity that is part of 'Restaurants with Service'; 1 of them carries out an activity that is part of the category 'Hotels and Similar Establishments').

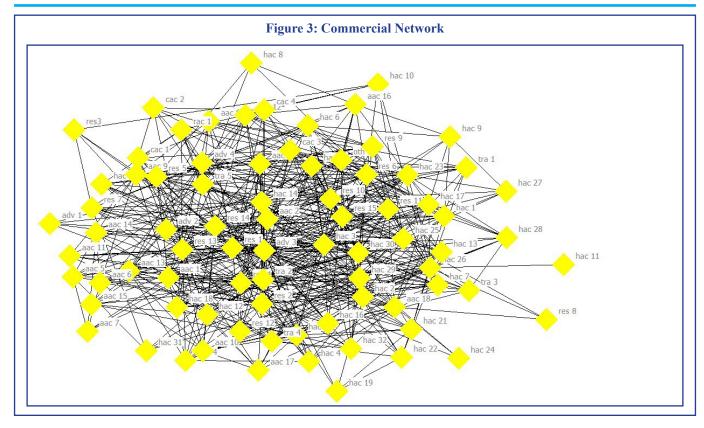
Table 2: Commercial Clusters			
Description	Components		
Cluster 1	HAC 1; HAC 30; HAC 23; HAC 28; CAC 3; HAC 7		
Cluster 2	AAC 6; RES 1; AAC 14; AAC 9; AAC 7; AAC 5		
Cluster 3	HAC 4; HAC 2; RES 2; HAC 5; RES 14; AAC 4		

Legend: HAC= Hotels and similar establishments;

AAC= Room rentals for short stays, vacation homes and apartments, B&B, apartments, housing connected to farms;

RES= Restaurants with service;

CAC= Camping grounds and areas for campers and trailers.



Analysis of the sub-structures of the commercial network (Figure 3) allows us to discover that three clusters with a high internal density exist (equal to 0.80) and that the elements included are the three families previously identified.

By calculating the *1st-order neighbourhood* for the three families in the *commercial matrix*, we noted that these could affect 92.5% of the existing enterprises at the tourist destination of San Vito Lo Capo. This value is important, if we consider (Figure 4) that the density of the

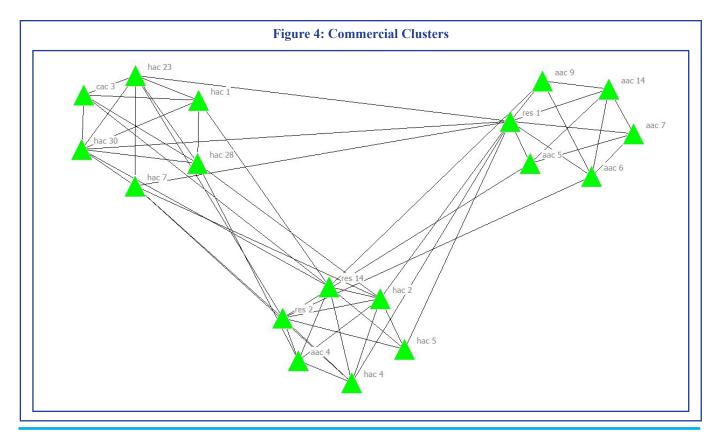


Table 3: Bonacich Centrality			
Bonacich Centrality			
45.000			
41.000			
26.000			
25.000			
25.000			

Source: extracted from the centrality result in the appendix

commercial network is equal to 0.1403, we realise that these three families are influential within this network but are also central and indispensable in commercial relationships. To analyse the role attributed by the tourist destination to these three families, the database had to be modified by combining the nodes belonging to the family and indicating it as a single node.

Using the normalised eigenvector proposed by Bonacich, we note in Table 3 that the first two families have a considerable status and power within the commercial network as this high value is given to an actor connected to many actors who are themselves also well-connected. This calculation considers not only the number of interactions, but also who they are tied to.

The data on the three families is interesting when compared to the two companies in the table. This index illustrates how it is not only being a family that plays an essential role in commercial relations but also how to manage them. We also calculated the betweenness centrality in Table 4. The first two families use their

Table 4: Betweenness Centrality				
	Betweenness	nBetweenness		
Family 1	300.770	18.195		
Family 2	221.821	13.419		
hac 26	91.392	5.529		
hac 3	77.993	4.718		
tra 2	70.739	4.279		
res 13	64.327	3.892		
res 10	61.498	3.720		
Family 3	48.489	2.933		
Source: extracted from the centrality result in the appendix				

power and status within the commercial network, placing themselves as vertices of relationships. The high values recorded for the first two families indicate that they have some influence over the network.

The data show that this structure provides a system of mutual assistance and exchange of commercial relations extended to all the players, even if these do not fall within the kinship sphere. The existence of three central families at the destination that can affect almost the entire system implies that, within the network, the enterprises share rules endogenously produced in the network. This behaviour maintains stability for a long time (Hayek, 1973). These cultural rules, based on the mutual trust deriving from the family relationships, bring compliance and set the interactions between individual actors (Bernheim, 1994). Therefore, the social network generates reliance on an overall family system. The confidence this brings implies the creation of social capital through which the local enterprises compare each other, cooperating in the development of the system.

Considerations for Destination Analysis

The results in this paper imply suggestions for practice and research since they demonstrate the contribution of network analysis to understanding the structure and cohesiveness of a tourist destination (Provan & Kenis, 2008; Michael, 2007; Morrison et al., 2004; Novelli et al., 2006). Indeed, as previously highlighted in the literature, the relational approach improves the competitiveness and the performances of each actor of the system and that of the destination as a whole. In general terms, network analysis, as an analytical tool, is particularly useful because it considers the destination approach and the different actors operating in the area, pointing out a systemic vision of the destination. Indeed, visualisation of the relationships and structural positions of the local stakeholders is beneficial since the local structure of the supply can be easily interpreted by managers and shared with destination stakeholders. Considering the specific application of Social Network Analysis to the case study in this paper, it helps to understand the operational and internal structure of the tourism supply at San Vito Lo Capo, a little town in north-western Sicily, which experienced rapid tourism development from 2003 to 2019.

The paper investigates the existence and the intensity of relations among local business companies in the tourism sector, considering two kinds of links represented by two different matrices.

The results highlight pivotal families, i.e., a network of enterprises whose owners are linked by family ties. In particular, 66.25% of companies at the destination level have family ties. Analysing the characteristics of this network, it can be noted that three families, variously composed according to the activity carried out, show a high-density value equal to: 0.50; 0.57 and 0.60. Moreover, a deeper analysis of the sub-structures of the commercial network allows the discovery that there are three clusters with a high internal density (equal to 0.80) and the elements included are the three families previously identified. The commercial matrix shows that these can affect 92.5% of the existing enterprises at the tourist destination of San Vito Lo Capo. The first two families have considerable status and power within the commercial network.

The importance of the families is demonstrated through the regular collaboration with the other families and the central role they play in trade relations with all enterprises at the destination - highlighted by the SNA through the high density of relationships. The presence of kinship links is the basis of the commercial relations of the three high-density clusters / families. These relations provide a system of mutual assistance and commercial exchanges. The enterprises involved in the network share rules endogenously and spontaneously produced in the network, based on the mutual trust deriving from the family relationships, aiming to maintain stability over time (Hayek, 1973; Bernheim, 1994).

These relations, again, determine the creation of social capital through which local enterprises measure up with each other, cooperating in the development of the whole local tourism system.

This type of cooperation, repeated over time, consolidates trust among the actors. A deeper analysis of the relations among firms in San Vito Lo Capo and the internal features of each family business identifies the subjects of significant importance within each node or family of

the network. In this sense, the family members support the activities of the most prominent members. This high degree of cooperation can be explained only if relationships are based on trust among the enterprises. More specifically, by analysing the links of an individual family, a single member cannot influence and manage the entire destination. However, when the prominent family members cooperate, they can control the destination and affect its performance. Communication intensity reinforced through multiple rounds of cooperation and the effectiveness of establishing contact (in line with transaction cost economics) foster collaboration. Hence, to increase cooperation or launch collective action, planners must pay attention to previously established bonds of trust among actors through intense communication, which is also considered a fundamental condition in an exploratory study by Saxena (2005).

The work in this paper has its limitations. First, the results are valid for one destination and could reflect the behaviour of individuals in a local / regional culture different from that of other destinations. Thus, the findings can only be considered valid for destinations with supply structures and physical features, such as those of San Vito Lo Capo. Second, the research in this paper reflects a single point in time, but networks are dynamic. An important area of future research will be to simulate past and future destination networks based on their current characteristics. Relationships among stakeholders are constantly shifting as they draw together and define the network's various elements and interact with the external environment. Third, no longitudinal data are available in this study. However, further research could observe dimensions like trust and communication, thus describing the mechanisms that foster or hinder cooperative behaviour over time.

To conclude, this work should be of interest for peripheral tourist destinations located in territories characterised by difficulties in local development (such as islands, mountain sites, border areas and so on) or for those situated in areas characterised by structural underdevelopment, namely, places where family-run businesses and their kinship networks play a relevant role in the creation and configuration of new or more efficient tourist destinations.

References

- Afuah, A. (2013) Are network effects really all about size? The role of structure and conduct. *Strategic Management Journal*, 34(3), 257-273.
- Albrecht, J.N. (2013) Networking for sustainable tourism Towards a research agenda. *Journal of Sustainable Tourism*, 21(5), 639–657.
- Baggio, R. (2008) Symptoms of complexity in a tourism system. *Tourism Analysis*, 13(1), 1-20.
- Baggio, R., Scott, N. & Cooper, C. (2009) Network position and perceptions of destination stakeholder importance. *Anatolia: An international journal of tourism and hospitality research*, 20(1), 33-45.
- Baggio, R. & Cooper, C. (2010) Knowledge transfer in a tourism destination: the effects of a network structure. *The Service Industries Journal*, 30(10), 1757-1771.
- Baggio, R., Scott, N. & Cooper, C. (2013) Using network analysis to improve tourist destination management. In C. Costa, E. Panyik, & D. Buhalis (Eds.), *Trends in European Tourism Planning and Organisation* (pp. 278–288). Bristol: Channel View Publications
- Baggio, R. (2011) Collaboration and cooperation in a tourism destination: a network science approach. *Current Issues in Tourism*, 14(2), 183-189.
- Baggio, R. (2013) Studying complex tourism systems: a novel approach based on networks derived from a time series. Paper presented at XIV April International Academic Conference on Economic and Social Development Moscow, April 2-5, 2013.
- Baggio, R. & Del Chiappa, G. (2014) Real and virtual relationships in tourism digital ecosystems. *Information Technology & Tourism*, 14(1), 3-19.
- Balkundi, P., Kilduff, M. & Harrison, D.A. (2011) Centrality and charisma: comparing how leader networks and attributions affect team performance. *Journal of Applied Psychology*, 96: 1209-1222.
- Beritelli, P. (2011) Cooperation among prominent actors in a tourist destination. *Annals of Tourism Research*, 38(2), 607-629.
- Bernheim, B.D. (1994) A theory of conformity. *Journal of political Economy*, 102(5), 841-877.
- Bhat, S.S. & Milne, S. (2008) Network effects on cooperation in destination website development. *Tourism Management*, 29(6), 1131-1140.
- Boschma, R.A. & Frenken, K. (2006) Why is economic geography not an evolutionary science? Towards an evolutionary economic geography. *Journal of Economic Geography*, 6(3), 273-302.

- Bramwell, B. & Lane, B. (Eds.) (2000) *Tourism Collaboration and Partnerships: Politics, Practice and Sustainability* (Vol. 2). Channel View Publications.
- Buhalis, D. (2000) Marketing the competitive destination of the future. *Tourism Management*, 21(1), 97-116.
- Camprubí, R., Guia, J. & Comas, J. (2009) La formación de la imagen turística inducida: un modelo conceptual. PASOS. *Revista de Turismo y Patrimonio Cultural*, 7(2).
- Carlsen, J. (1999) A systems approach to island tourism destination management. Systems Research and Behavioral Science: The Official Journal of the International Federation for Systems Research, 16(4), 321-327.
- Carrà, G., Mariani, M., Radić, I. & Peri, I. (2016) Participatory Strategy Analysis: The Case of Wine Tourism Business. Agriculture and Agricultural Science Procedia, 8, 706-712.
- Chua, J.H., Chrisman, J.J. & Sharma, P. (1999) Defining the family business by behavior. *Entrepreneurship Theory and Practice*, 23(4), 19-39.
- Comas Trayter, J. (2005) Innovació i desestacionalització de la demanda hotelera en un districte turístic: el paper de les xarxes relacionals. Universitat de Girona.
- 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.
- Costa, C., Breda, Z., Costa, R. & Miguéns, J. (2008) The benefits of networks for small and medium-sized tourism enterprises. *Network Analysis and Tourism: From Theory* to Practice, 96-114.
- Czernek, K. (2013) Determinants of cooperation in a tourist region. *Annals of Tourism Research*, 40, 83-104.
- Danes, S.M., Stafford, K., Haynes, G. & Amarapurkar, S.S. (2009) Family capital of family firms: Bridging human, social, and financial capital. *Family Business Review*, 22(3), 199-215.
- Danes, S.M., Lee, J., Stafford, K., & Heck, R.K.Z. (2008) The effects of ethnicity, families and culture on entrepreneurial experience: An extension of sustainable family business theory. *Journal of Developmental Entrepreneurship*, 13(03), 229-268.
- De Klerk, S. & Saayman, M. (2012) Networking as key factor in artpreneurial success, *European Business Review*, 24(5), 382–399
- Del Chiappa, G. & Presenza, A. (2013) The use of network analysis to assess relationships among stakeholders within a tourism destination: An empirical investigation on Costa Smeralda-Gallura, Italy. *Tourism Analysis*, 18(1), 1-13.
- Denison, D., Lief, C. & Ward, J.L. (2004) Culture in family-owned enterprises: Recognizing and leveraging unique strengths. *Family Business Review*, 17(1), 61-70.

- Dredge, D. (2006) Policy networks and the local organisation of tourism. *Tourism management*, 27(2), 269-280.
- Dredge, D. (2014) Tourism-planning network knowledge dynamics. In M. McLeod & R. Vaughan (Eds.) *Knowledge Networks and Tourism*. Abingdon: Routledge, 9–27.
- Dyer Jr, W.G. & Handler, W. (1994) Entrepreneurship and family business: Exploring the connections. *Entrepreneurship Theory and Practice*, 19(1), 71-83.
- Fuglsang, L. & Eide, D. (2013) The experience turn as 'bandwagon': Understanding network formation and innovation as practice. *European Urban and Regional Studies*, 20(4), 417-434.
- Fyall, A. Garrod, B. & Wang, Y. (2012) Destination collaboration: A critical review of theoretical approaches to a multi-dimensional phenomenon. *Journal of Destination Marketing & Management*, 1(1), 10-26.
- Gersick, K.E., Gersick, K.E., Davis, J.A., Hampton, M.M. & Lansberg, I. (1997) *Generation to Generation: Life Cycles of the Family Business*. Harvard Business Press.
- Getz, D., Carlsen, J. & Morrison, A. (2005) Quality issues for the Family Business, in Jones E. and Haven-tang C. (Eds.) Tourism SMEs, Service Quality And Destination Competitiveness. CABI, Wallingford, 73-85.
- Getz, D. & Carlsen, J. (2005) Family business in tourism: State of the art. *Annals of Tourism Research*, 32(1), 237-258.
- Gorman, C. & Mottiar, Z. (2015) 'Economic Recession as a Catalyst to Increased Collaboration in Rural Tourism.' In Collaboration in Gursoy, D., Saayman, M. and Sotiriadis, M. (Eds) *Tourism Businesses and Destinations: A Handbook*. Bingley: Emerald, 141–54.
- Graci, S. (2013) Collaboration and partnership development for sustainable tourism. *Tourism Geographies*, 15(1), 25-42.
- Granovetter, M. (1973) (1973) The strength of weak ties, *American Journal of Sociology*, 78, 1360-1380.
- Gunn, C.A. (1977) 'Industry pragmatism vs tourism planning'. *Leisure Sciences*, 1(1),85-94.
- Hall, C.M. (1999) Rethinking collaboration and partnership: A public policy perspective. *Journal of Sustainable Tourism*, 7(3-4), 274-289.
- Hallak, R., Assaker, G. & O'Connor, P. (2014) Are family and nonfamily tourism businesses different? An examination of the entrepreneurial self-efficacy-entrepreneurial performance relationship. *Journal of Hospitality & Tourism Research*, 38(3), 388-413.
- Halme, M. (2001) Learning for sustainable development in tourism networks. *Business Strategy and the Environment*, 10(2), 100-114.

- Hanneman, R.A. & Riddle, M. (2005) Introduction to Social Network Methods. Riverside, CA: University of California, Riverside (published in digital form at http://faculty.ucr.edu/~hanneman/)
- Haugland, S.A., Ness, H., Grønseth, B.-O. & Aarstad, J. (2011) 'Development of tourism destinations; an integrated multilevel perspective'. *Annals of Tourism Research*, 38(1), 268-290.
- Hayek, F.A.V. (1973) Law, Legislation and Liberty: a new statement of the liberal principles of justice and political economy. London: Routledge.
- Hunziker, W. & Krapf, K. (1942) El turismo conceptos y definiciones e importancia actual. Murcia, España.
- Jaafar, M., Maideen, S.A. & Sukarno, S.Z.M. (2010) Entrepreneurial characteristics of small and medium hotel owner-managers. World Applied Sciences Journal, 10 (Special Issue of Tourism and Hospitality), 54-62.
- Jamal, T.B. & Getz, D. (1995) 'Collaboration theory and community tourism planning'. *Annals of Tourism Research*, 22(1), 186–204
- Karl, M. & Reintinger, C. (2017) Investigating Tourists' Destination Choices-An Application of Network Analysis. *European Journal of Tourism Research*, 15, 112-130.
- Kimbu, A.N. & Ngoasong, M.Z. (2013) Centralised decentralisation of tourism development: a network perspective. *Annals of Tourism Research*, 40, 235-259.
- Kogut, B. (2000) The network as knowledge: Generative rules and the emergence of structure. *Strategic Management Journal*, 21(3), 405-425.
- Latour, B. (2013) Reassembling the Social. An Introduction to Actor-Network-Theory. *Journal of Economic Sociology*, 14(2), 73-87.
- Laumann, E.O., Galaskiewicz, J. & Marsden, P.V. (1978) Community structure as interorganizational linkages. *Annual Review of Sociology*, 4(1), 455-484.
- Lazzeretti, L. & Petrillo, C.S. (Eds.) (2006) *Tourism Local Systems and Networking*. Routledge.
- Leiper, N. (1990) Partial industrialization of tourism systems. *Annals of Tourism Research*, 17(4), 600-605.
- Lienert, J., Schnetzer, F. & Ingold, K. (2013) Stakeholder analysis combined with social network analysis provides fine-grained insights into water infrastructure planning processes. *Journal of Environmental Management*, 125, 134-148
- Maggioni, M.A. & Uberti, T.E. (2011) Networks and geography in the economics of knowledge flows. *Quality & Quantity*, 45(5), 1031-1051.
- Marín, G.S., Hernández, A.J.C., del Valle, I.D. & Castillo, M.Á.S. (2016) Organizational culture and family business: A configurational approach. *European Journal of Family Business*, 6(2), 99-107.

- Merinero-Rodríguez, R. & Pulido-Fernández, J.I. (2016a) Analysing relationships in tourism: A review. *Tourism Management*, 54, 122-135.
- Merinero-Rodríguez, R. & Pulido-Fernández, J.I. (2016b) Network science: A review focused on tourism. *Annals of Tourism Research*, 37(3), 802-827.
- Meyer, J.W. & Scott, W.R. (1992) *Organizational Environments: Ritual and Rationality*. Sage Publications, Inc.
- Michael, E.J. (Ed.) (2007) *Micro-clusters and Networks: The Growth of Tourism*. Oxford: Elsevier.
- Morrison, A., Lynch, P. & Johns, N. (2004) International tourism networks'. *International Journal of Contemporary Hospitality Management*, 16(3), 197–202
- Novelli, M., Schmitz, B. & Spencer, T. (2006) Networks, clusters and innovation in tourism: A UK experience. *Tourism Management*, 27(6), 1141-1152.
- Pavlovich, K. (2003) The evolution and transformation of a tourism destination network: the Waitomo Caves, New Zealand. *Tourism Management*, 24(2), 203-216.
- Petrillo, C.S. & Swarbrooke, J. (2005) Networking and Partnership in Destinations and Development Management (Vol. II). Naples: Enzo Albano.
- Powell, W.W., DiMaggio, P. & Chiesara, L. (2001) *Il neoistituzionalismo nell'analisi organizzativa*.
- Presenza, A. & Cipollina, M. (2010) Analysing tourism stakeholders networks. *Tourism Review*, 65(4), 17-30.
- Provan, K.G. & Kenis, P. (2008) Modes of network governance: Structure, management, and effectiveness. *Journal of Public Administration Research and Theory*, 18(2), 229–252.
- Rogoff, E.G. & Heck, R.K.Z. (2003) Evolving research in entrepreneurship and family business: Recognizing family as the oxygen that feeds the fire of entrepreneurship. *Journal of Business Venturing*, 18(5), 559-566.
- Rowley, T.J. (1997) Moving beyond dyadic ties: A network theory of stakeholder influences. *Academy of Management Review*, 22(4), 887-910.
- Ryan, T. & Mottiar, Z. (2007) The Role of SMEs in Tourism Development: An Industrial District Approach Applied to Killarney, Ireland. In Thomas, R. and Augustyn, M. (Eds.) *Tourism in the New Europe: perspectives on SME policies and practices*, Routledge, 77-92.
- Saxena, G. (2005) Relationships, networks and the learning regions: case evidence from the Peak District National Park. *Tourism Management*, 26(2), 277-289.
- Scott J. (1992) Social Network Analysis. Sage: Newbury Park CA
- Scott, J. (2000) Social Network Analysis: A handbook. Sage London. 2nd edition.

- Scott, J. (2017) Social Network Analysis. Sage.
- Scott, N., Baggio, R. & Cooper, C. (2008) *Network Analysis* and *Tourism: From theory to practice*. Channel View Publications.
- Selin, S. & Chavez, D. (1995) Developing an evolutionary tourism partnership model. *Annals of Tourism Research*, 22(4), 844-856.
- Selin, S. (2000) Developing a Typology of Sustainable Tourism Partnerships. Tourism collaboration and partnerships: Politics, practice and sustainability. Channel View Publications: Clevedon, 129-42.
- Sharma, P. (2004) An overview of the field of family business studies: Current status and directions for the future. *Family Business Review*, 17(1), 1-36.
- Shaw, G. (2014) Entrepreneurial Cultures and Small Business Enterprises in Tourism. The Wiley Blackwell companion to tourism, 120-131.
- Shaw, G. and Allan M.W. (1998) Entrepreneurship, Small Business Culture and Tourism Development. In Ioannides D. and Debbage K. G. (Eds.) *The Economic Geography of the Tourist Industry. A Supply-side Analysis*. Routledge: London: 235-55.
- Shih, H.Y. (2006) Network characteristics of drive tourism destinations: An application of network analysis in tourism. *Tourism Management*, 27(5), 1029-1039.
- Simpson, B., Markovsky, B. & Steketee, M. (2011) Power and the perception of social networks. *Social Networks*, 33(2), 166-171.
- Sorensen, F. (2007) 'The geographies of social networks and innovation in tourism'. *Tourism Geographies: An International Journal of Tourism Space, Place and Environment*, 9(1), 22–48.
- Sytch, M., Tatarynowicz, A. & Gulati, R. (2012) Toward a theory of extended contact: The incentives and opportunities for bridging across network communities. *Organization Science*, 23(6), 1658-1681.
- Tremblay, P. (1998) The economic organization of tourism. *Annals of Tourism Research*, 25(4), 837-859.
- Tinsley, R. & Lynch, P. (2001) Small tourism business networks and destination development. *International Journal of Hospitality Management*, 20(4), 367-378.
- Torraleja, F.A.G. & Martos, M.C.V. (2003) La empresa familiar como instrumento de desarrollo económico-social: el caso de las zonas turísticas de interior. *Investigaciones europeas de dirección y economía de la empresa*, 9(3), 129-146.
- Tortoriello, M., Reagans, R. & McEvily, B. (2012) Bridging the knowledge gap: The influence of strong ties, network cohesion, and network range on the transfer of knowledge between organizational units. *Organization Science*, 23(4), 1024-1039.

- Van der Zee, E. & Go, F.M. (2013) Analysing beyond the environmental bubble dichotomy: How the 2010 World Cup case helped to bridge the host–guest gap. *Journal of Sport & Tourism*, 18(3), 161-183.
- Van der Zee, E. & Vanneste, D. (2015) Tourism networks unravelled; a review of the literature on networks in tourism management studies. *Tourism Management Perspectives*, 15, 46-56
- Vanneste, D. & Ryckaert, L. (2011) Networking and governance as success factors for rural tourism? The perception of tourism entrepreneurs in the Vlaamse Ardennen. *Bulletin de la Société Géographique de Liège*, 57, 53-71.
- Vargo, S.L. & Lusch, R.F. (2004) Evolving to a new dominant logic for marketing. *Journal of Marketing*, 68 (1), 1-17.
- Viken, A., & Aarsaether, N. (2013) Transforming an iconic attraction into a diversified destination: The case of North Cape tourism. *Scandinavian Journal of Hospitality and Tourism*, 13(1), 38-54.

- Wray, M. (2009) Policy communities, networks and issue cycles in tourism destination systems. *Journal of Sustainable Tourism*, 17(6), 673-690
- Watts, D.J. & Strogatz, S.H. (1998) Collective dynamics of 'small-world' networks. *Nature*, 393(6684), 440.
- Zach, F., & Racherla, P. (2011) Assessing the value of collaborations in tourism networks: A case study of Elkhart County, Indiana. *Journal of Travel & Tourism Marketing*, 28(1),97-110.
- Zehrer, A., Raich, F., Siller, H. & Tschiderer, F. (2014) Leadership networks in destinations. *Tourism Review*, 69(1), 59-73.
- Zapalska, A.M. & Brozik, D. (2014) Female entrepreneurial businesses in tourism and hospitality industry in Poland. *Problems and Perspectives in Management*, 12(2), 7-13.