# TOURIST DESTINATION NETWORK ANALYSIS: THE EGO NETWORK ROLE

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**ABSTRACT**

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This paper aims to analyze the different roles that enterprises have within a tourist destination by identifying the presence and possible role of leaders within the system.
The Social Network Analysis (SNA) is a tool that offers a greater degree of understanding of the operation of the destination. The map of commercial relations between the leading players of tourist supply can provide greater insight into the main relations existing between enterprises and the principles that ensure and regulate operation.
In keeping with this objective and building on the results of a previous paper (Iannolino and Ruggieri, 2012), the authors have focused their attention on the role of some enterprises operating in San Vito Lo Capo (Italy) to determine the extent of their aggregating force vis-à-vis the destination.
The ego-network analysis (ENA) has been applied to the existing relations between the enterprises at the destination San Vito Lo Capo, to determine the presence or absence of groups of enterprises, called Egos, which, with respect to the others, play an important role or are to be considered, in commercial terms, key subjects for the entire system.
Following on this first result, the paper explores ways in which enterprises belonging to the ego networks are the key players responsible for a better climate of cooperation and trust among all of the system's enterprises.

1. Social Network Analysis: background

The production of goods and services within a tourist destination necessarily implies a set of collaborations between the various stakeholders (Selin & Chavez, 1995; Hall, 1999; Bramwell & Lane, 2000; Selin, 2000). The presence or absence of these relationships, be they formalized or spontaneous and not formalized, represents the grid or network of a tourist destination (Tinsley & Lynch, 2001; Copp & Ivy, 2001; Halme, 2001).
A recent line of research in the literature on tourism has analyzed destinations based on the assumption that they are a set of elements that are strongly interconnected (Leiper, 1990; Carlsen, 1999). This grid, or system, is referred to in the literature as mix (*destination mix*), that is a set, both indistinct and non-identifiable, whose presence is able to ensure the operation of the tourist destination as a whole thus determining its success as well.
This has resulted in the need to find tools and techniques that could be used to study the destination, focusing on the relationship between components and elements of a tourist destination.
The Social Network Analysis (SNA) has addressed this need (Baggio, 2008), as its unit of analysis is the network as a whole. In order to achieve this goal, it uses techniques that analyze the relationships between individuals, groups or organizations (Tichy, Tushman, and Fombrum, 1979). The importance of considering relationships as an element constituting human nature was well expressed by Kilduff & Tsai (2003): "*Human beings are by their very nature gregarious creatures, for whom relationships are defining elements of their identities and creativeness. The study of such relationships is therefore the study of human nature itself*."
This greater attention to relationships required that the tools used to analyze the network differ profoundly from the statistical methods used to date in scientific research applied to tourism. These have analyzed each component of the destination individually, without considering the relational dimension, i.e., the degree of interaction between the single elements with the entire system.
The Social Network Analysis (SNA) applied to the analysis of tourist destinations allows illustrating and representing the set of relationships between enterprises in a simplified manner through relational maps ( Cross, Borgatti and Parker, 2002).
The SNA provides managers the opportunity to understand the logic of operation of the network so as to learn about the features and critical aspects to achieve better destination governance (Baggio, 2007; Scott et al, 2008a, 2008b; Fontoura Costa & Baggio, 2009).
In both the static and dynamic analysis of tourist destinations, this approach is absolutely necessary, because it adds a dimension hitherto neglected which can impact, more than any other, the success of a tourist destination determining its growth or decline.
Knowing the network of a destination means understanding its structure as Galaskiewicz and Wasserman (1994) argue: "*social network analysis focuses its attention on how these interactions constitute a framework or structure that can be studied and analysed in its own right*.''
The multi-disciplinary origin of SNA has led to the creation of a wide range of quantitative measurements that allow identifying the main characteristics of the network (Scott 2000). The following table outlines some of these indexes.

**Table 1** Some SNA indices

| *Table of Contents* | *Description* |
|---|---|
| *Density* | *Number of lines of a network compared to the maximum possible number of lines* |
| *Geodesic distance* | *Calculates the length of the shortest path connecting two points;* |
| *Average distance* | *The average of the geodesic distances;* |
| *Diameter* | *The longest distance connecting two points in a network* |

## 2. Tourist destination: the network between enterprises

In addition to dealing with the issue of the structural elements (Pearce; Cooper et al. 2002), the presence or absence of specific assets, the territorial dimension (Costa, 2000), and the role and composition of stakeholders and shareholders (Candela G, 2012), the literature on tourist destinations addresses some of the conditions that allow destinations to grow and develop (Scott, et al, 2012).

These are dealt with in a more widespread and thorough manner in the tourism cluster model whose main condition is the presence of a multitude of enterprises and the ongoing interaction between them.

In this paradigm, a tourist destination becomes a place of relationships and interactions between firms, or the place where there is business originating from economic, social and production relations.

This space of social and economic relations is composed of individuals who, like the nodes of a relational grid, albeit productive, are responsible for establishing or maintaining the set of formal, informal, economic and social relations underlying the operation of the entire tourist destination.

However, the presence of these relationships is not enough to explain the systemic operation of the destination. The reasons are to be sought in relational dynamics as well as in the role played by each subject within the grid. Therefore, the possible interactions and collaboration between firms do not often depend on individual determination or technical capacity, but is due to the role that these have within the destination. In particular, in some cases, it depends on the extent to which they are recognized as system leaders or have a dense consolidated network of trust relationships, such as to be identified as leaders of the system and central figures in its operation vis-à-vis other enterprises.

At many destinations, though, there are conditions of aggregation between enterprises, characterized by the presence of either leading enterprises that are recognized as being leaders of the system or satellite enterprises that keep out of the cooperation and collaboration system marginalizing their role.

Therefore, collaborating with a system of companies or being a satellite enterprise is a binary choice of the individual entrepreneur who decides to join a formalized system of established rules or to follow his own independent strategies.

The presence of different roles played by the enterprises and the various possible aggregations among them in a cluster or subcluster draws attention to how the network of enterprises is structured.

This paper aims at highlighting that the presence of formal, informal, intense, complex and concentrated relationships between firms does not explain per se how the tourist destination system works. In this network the presence of system leaders, satellite enterprises and groups of undertakings are to be identified to gain greater insight into the role of each.

The different relational configurations and different weights of the individual firms compared with the others in the system (better defined as nodes) can offer an overall view of the destination, revealing its strengths (relevant companies or leaders), and its weaknesses (satellite enterprises, uncooperative firms, marginal or marginalized businesses).

The need to cooperate in small tourist destinations, characterized as they are by the widespread presence of micro-businesses, albeit felt as necessary and often induced by tourism policies aimed at growth and development, encounters the main resistance or driving forces in the relational configuration and in the structure of the relationships between companies with different roles.

3. The Social Network Analysis for ego network findings

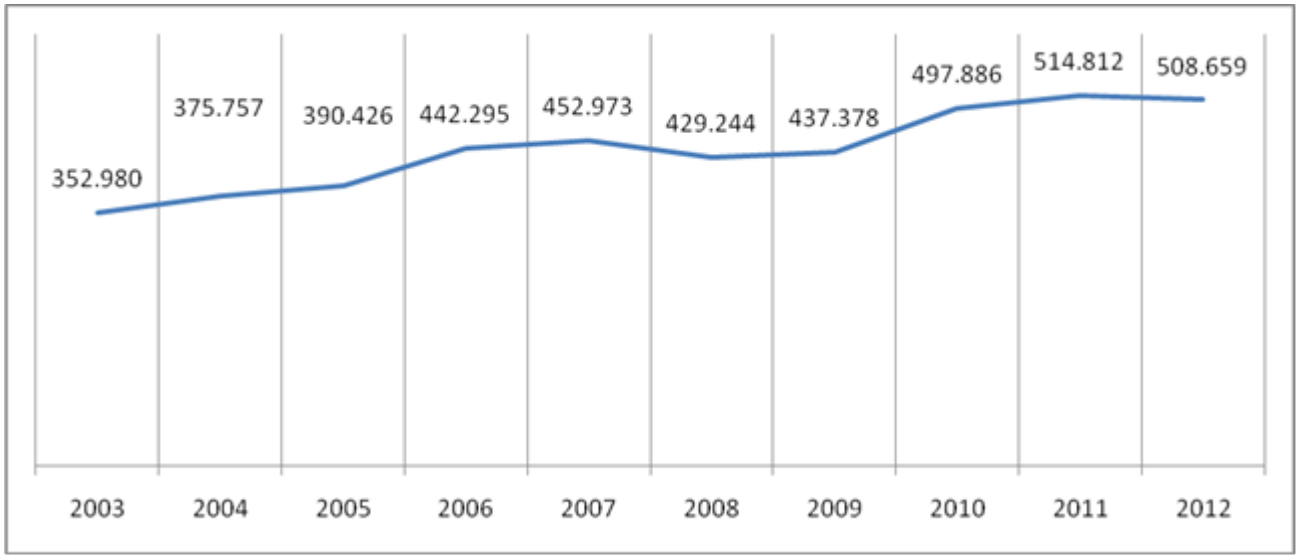
An ego-network is a network *consisting of a single actor (ego) together with the actors they are connected to (alters) and all the links among those alters*"( Everett and Borgatti 2005). These networks are also known as " *neighborhood networks of ego*" or "*first order neighbourhoods of ego*". One of the first contributions to focus attention on research into ego-networks is that of Bott (1957) who understood that within small networks it is possible to "*exert consistent informal pressure on one another to conform to the norms, keep in touch with one another, and, if need be, to help one another*." The ego tends to create links with those entities that are consistent with their *schematic expectations* (Kilduff & Tsai, 2003) in order to better manage the structure of the links that it forms around itself (Janicik & Larrick, 2005). This ability to choose the entities that will become part of one's own network is facilitated in a global structure of links in which there is a low density ( Bott 1957). In the latter situation, there is a lack of a set of shared institutional rules and this leads entities to be more likely to establish relationships with those that are recognized to be leaders. Within this tighter network, the entities involved are urged to share norms and values that characterize the ego and in this sense, one can understand why leadership creates the social capital (Pastor, Meindl, & Mayo, 2002). Therefore, the ego is led to invest in relationships with the others, adding and/or subtracting players from its network in order to improve its performance and that of the network (Sparrowe, Liden, Wayne, & Kraimer, 2001) and be present in the other networks (which it is not part of) through the *alters*. These two motivations have different impacts on the *whole network*. For the enterprises, the first characteristic entails the opportunity to have a common growth basis (as is that of a small network) (Powell, Koput & Smith-Doerr, 1996) and allows them to create new ties (Gulati & Gargiulo, 1999) with entities with which they did not have relations before but which know themselves through the ego-network. Ongoing interaction in time and the exchange of information can yield innovations in services and products (Hargadon & Sutton, 1997). The second characteristic, on the other hand, improves management of the *whole network* because it allows the players (or nodes) to be able to reach one another through the least number of ties (Kogut & Walker, 2001).

This leads to a micro-analysis of the ego-networks using some indices such as density, connectivity (Burt, 1992) or the location of the *alters*. The reason why the focus is not limited only to density lies in the fact that, as Mitchell argued (1969): "*our interest is primarily in reachability since norm enforcement may occur through transmission of opinions and attitudes along the links of a network. A dense network may imply that this enforcement is more likely to take place than a sparse one but this cannot be taken for granted. The pattern of the network must also be taken into consideration*."

4. The network survey

The analysis of the relational network was conducted in the territory of San Vito lo Capo, a Sicilian town, which is today one of the best examples on the island of a successful tourist destination.
Over the last ten years, the resort has grown in size evolving from a simple place with a tourist vocation to one with an increasingly systemic and structured configuration and is now defined a spontaneously growing tourist destination.
Collaboration and cooperation between operators and people living in the town are the driving forces of the growth of the destination, which independently and through self-management has been able to structure its supply consistently with the growth in tourist demand. The network created among the increasing number of new small tourism businesses that are connected together underpins a systemic make-up unique in its kind on the Sicilian tourism scene, revealing original and spontaneous aspects in its endogenous growth processes.
In the 2003-2012 period, overnights increased by 45%, from 352,980 to 508,659 (2012). However, these figures underestimate the actual number of visitors due to the large number of tourists who are lodged in private accommodations not covered by statistics. Increasing tourism demand has created a new supply of accommodations, homes and facilities in the non-hotel sector.
While in 2003 60% of accommodations were concentrated in the hotel sector—though consisting of small-to-medium sized establishments—in 2012 these consisted mainly of non-hotel accommodations and especially B&B's, accounting for over 70%.

Figure 1: Number of tourists from 2003 to 2012




Source: based on Province of Trapani data

The data show a significant change in the local tourism system at the center of which lies widespread entrepreneurship. In fact, the production of tourism services sees almost the entire local community engaged and this is also the case when it comes to programming. On the one hand, this situation has prevented the rise of the conflicts well known in the literature (Candela, Figini, 2012) between operators and the local population and, on the other hand, it has allowed both public and private interests to be consistent and shared by all the players at the tourist destination.

The uniqueness of the experience of San Vito lo Capo raises the question on what are the factors that have contributed to the forming of this "host community", and specifically on what the density of the ties, both productive and non-productive, is between the firms and what economic, social and cultural conditions these are based on.
The presence of this "host community" is to be sought for in the network of relationships of mutual trust and guidance toward a balanced and widespread development open to all.
In order to gain greater insight into the bonds and reasons behind this development, and following on the survey carried out in a previous study (Ruggieri, Iannolino, 2013), the authors' attention was focused on the relational ties between the enterprises (observation unit - R) consisting in mutual commercial relations or in bonds of kinship. The tourism companies of San Vito Lo Capo (analysis unit - N) reported in the table belong to several economic sectors (ATECO 2007).

**Table** 2 - San Vito Lo Capo Survey - 2010

| *Code* | *Description* | *Number of tourism enterprises* | *Composition of the analysis unit in percent* |
|---|---|---|---|
| *HAC* | *Hotels and similar establishments* | *32* | *34%* |
| *AAC* | *Room rentals for short stays, vacation homes and apartments, B&Bs, apartments, accommodations on farms* | *27* | *29%* |
| *RES* | *Catering with the serving of food and beverages* | *18* | *19%* |
| *OTH* | *Other booking services and related activities* | *6* | *6%* |
| *CAC* | *Camping grounds and equipped areas for campers and trailers* | *4* | *4%* |
| *TRA* | *Transportation by taxi, car rental with driver* | *2* | *2%* |
| *REC* | *Car and light motor vehicle rental* | *2* | *2%* |
| *ADV* | *Travel agency and tour operator activities* | *2* | *2%* |
| *RAC* | *Holiday villages* | *1* | *1%* |
| | ***TOTAL*** | ***94*** | ***100%*** |

*Source: Based on data of the network of Chambers of Commerce*

The survey was carried out through a questionnaire applying the Social Network Analysis techniques to a total of 80 enterprises that participated in the survey. The answers of the questionnaires that were filled out directly by managers or entrepreneurs of tourism enterprises were loaded and entered into an *adjacency matrix*, i.e., a data matrix, in accordance with the Social Network Analysis methodology.
The answers were processed with the Ucinet 6 software package (Borgatti, S.P., Everett, M. G., and Freeman, L. C., 2002), obtaining two 80x80 square matrices: one to process the commercial relations data (*commercial matrix*) and another to process the data relating to relations of kinship (*relative matrix*). The calculation of the specific SNA indices[1] shows the presence of a complex grid of relationships, which are illustrated and analyzed in the paragraphs below.

[1] **Density**: is one of the main statistical descriptors and it is used to indicate the level of cohesion among the enterprises. It summarizes the distance between the situation of maximum integration among the network's enterprises and the level actually measured. (Di Maggio & Powell, 1983; Scott &Meyer, 1983). The greater the number of links between the enterprises is, the denser the network.
**Geodesic distance**, i.e., the length of the shortest path connecting two players. If the distances are great, the relationship between two firms are more rarefied and pass through other enterprises, which are mediated or anyhow indirect.
**Centrality:** An enterprise is central if it is "at the center" of a certain number of relations (degree centrality) and this implies that the links are of considerable importance to the network. In other cases, an enterprise plays a mediating role between different enterprises becoming central to the network (betweenness centrality). In this case the enterprise takes on a certain importance in the coordination functions.

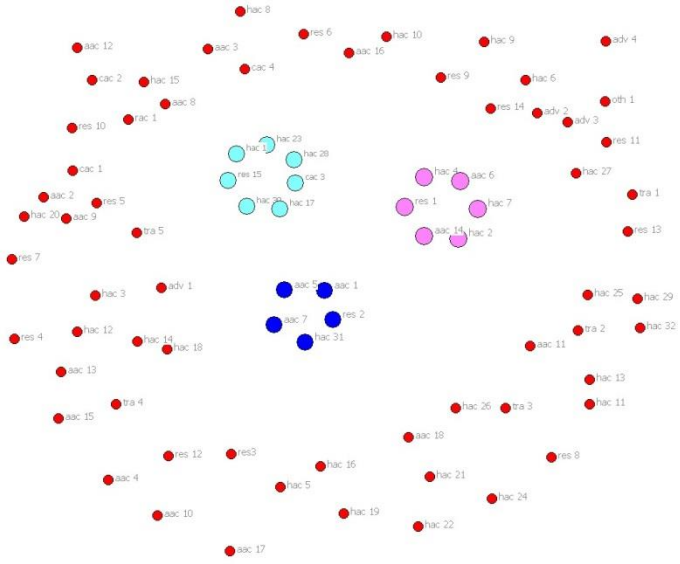
5. Ego Network Analysis: graphs

The continued growth of tourism demand and the subsequent organization of the supply over the last ten years have made it possible to set up a network of relations between enterprises in the town of San Vito Lo Capo. The cluster of enterprises that have driven growth, as demonstrated (Ruggieri, Iannolino, 2012), are characterized by a high density of commercial relationships supported by bonds of trust among relatives.
The presence of three family clusters was then demonstrated. They collaborate regularly with one another and play a central role in terms of trade relations with enterprises at the destination.

The enterprises identified and grouped together according to relative relations are the following:

| Cluster | Enterprises |
|---|---|
| 1 | hac1;hac23;hac28;cac3;hac17;hac30;res15 |
| 2 | hac4;res1;aac14;hac2; hac7;aac6 |
| 3 | aac5;aac7;hac31;res2;aac1 |

Figure 2: The three subgroups of family ties and commercial relationships - San Vito Lo Capo

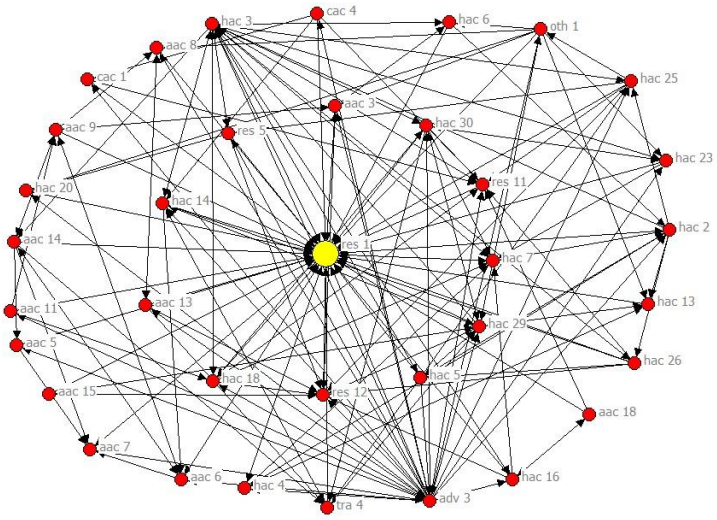


Source: Data processed by the authors

The next step now is to explore the role played by each enterprise within the three families. It is based on the likely hypothesis that within these clusters, each enterprise may have more or less commercial relationships with other firms in the system. In this way, we will obtain the enterprises with most relationships in the system and other enterprises with a small number of relationships.

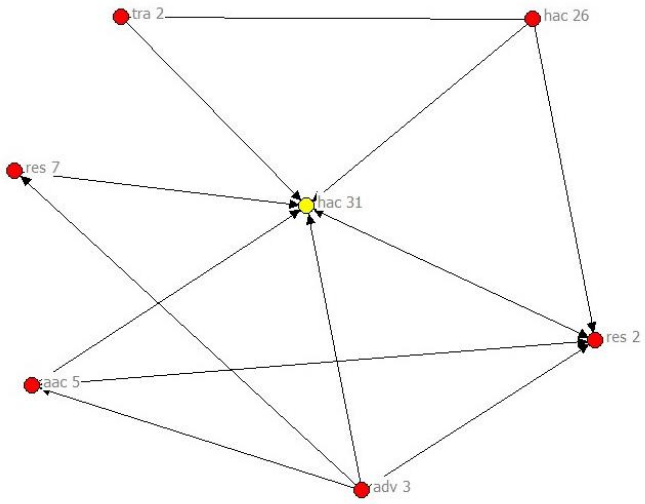
Therefore, the ego network analysis makes it possible to know both the quantity of relationships of each enterprise, called Ego, with all the other firms at the destination, as well as to illustrate and analyze the individual network (Ego-network).

Figure 3: Ego network of the enterprise with the most single relationships res_1




The graphical representation is an example of ego network in which firm res_1, which belongs to cluster 2, has the largest number of business relationships with firms at the tourist destination. It is a catering business that has a commercial network with 35 other firms.

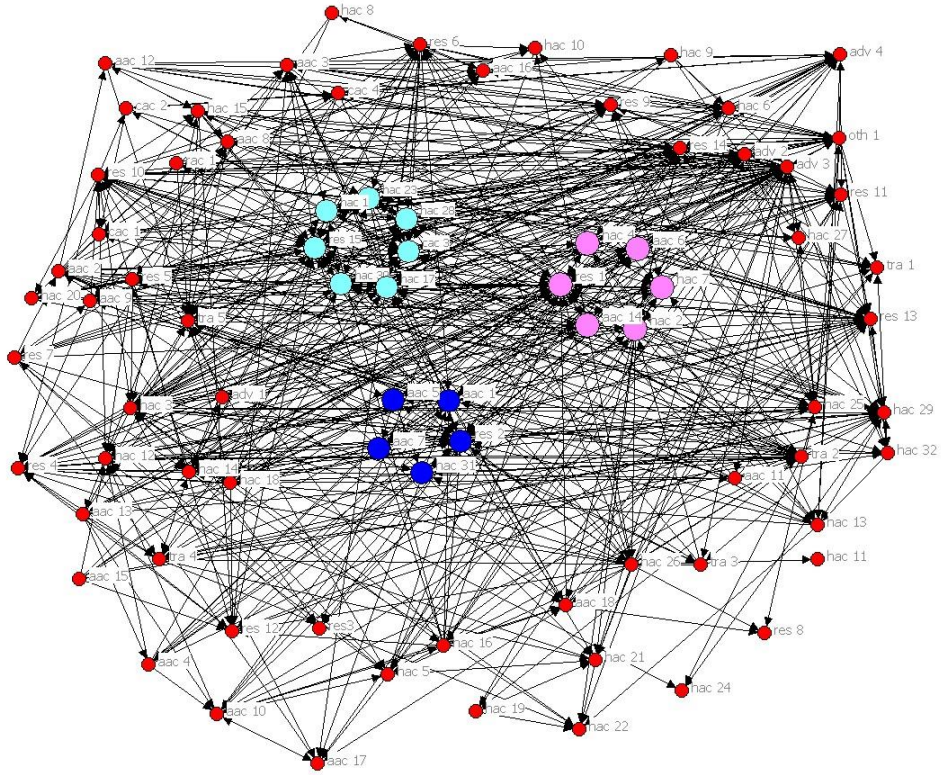
Figure 4: Ego network of the enterprise with least single relationships hac_31




A second example is represented by firm hac_31, a member of cluster 3, which has a limited number of commercial relationships with the firms in the tourist destination. It has only 6 commercial relationships and it belongs to the hospitality system.
By extending the graphical analysis to each enterprise belonging to a relative cluster, the result is a map of the influences exerted by families on the entire system.

Illustrating the aggregate of ego networks shows the map of influences exerted by groups of enterprises belonging to the three families. This network is a bit smaller than the destination of its aggregate, since it connects 73 enterprises out of a total of 80. The firms not included in this map of links, called satellite firms, are those that exclude themselves from the system of direct relations with the enterprises of the three relative clusters.

Figure 5: The three subgroups of family that related to all destination




A first graphical approach has shown that the leadership role played by families as the core of business aggregates explains the operation of the entire system of commercial relations at the destination.
Families are able to assure credibility, reassurance, relationships and trust. In order to better explain the leadership role played by the three families (at the moment in which these cooperate with one another), the size, composition and relationality of the individual ego-networks needs to be analyzed.

## 6. Ego Network Analysis: characteristics

In order to be able to understand the role that the three families play within the destination of San Vito Lo Capo, the behavior of the individual members belonging to them needs to be analyzed. Specifically, the Ucinet 6 software application (Borgatti, S. P., Everett, M. G. and Freeman, L. C. 2002) made it possible to build the reference network (Ego-network) for each of the 18 enterprises (Egos) belonging to the three families. Table 3 shows the 18 ego-networks and their characteristics.

**Table** 3 Characteristics of the ego-networks

| | Size | Ties | Pairs | Densit | AvgDis | Diamet | EgoBet | nEgoBe |
|---|---|---|---|---|---|---|---|---|
| res 1 | 35.00 | 222.00 | 1190.00 | 18.66 | 1.99 | 4.00 | 257.14 | 43.22 |
| hac 30 | 25.00 | 238.00 | 600.00 | 39.67 | 1.61 | 3.00 | 48.27 | 16.09 |
| res 15 | 22.00 | 144.00 | 462.00 | 31.17 | 1.77 | 3.00 | 68.25 | 29.55 |
| res 2 | 22.00 | 108.00 | 462.00 | 23.38 | 1.87 | 3.00 | 86.54 | 37.46 |
| hac 23 | 21.00 | 156.00 | 420.00 | 37.14 | 1.68 | 3.00 | 48.25 | 22.98 |
| aac 1 | 21.00 | 130.00 | 420.00 | 30.95 | 1.78 | 3.00 | 66.65 | 31.74 |
| hac 2 | 20.00 | 124.00 | 380.00 | 32.63 | 1.74 | 3.00 | 54.33 | 28.59 |
| cac 3 | 19.00 | 134.00 | 342.00 | 39.18 | 1.66 | 3.00 | 39.35 | 23.01 |
| hac 17 | 18.00 | 118.00 | 306.00 | 38.56 | 1.68 | 3.00 | 37.47 | 24.49 |
| hac 1 | 16.00 | 96.00 | 240.00 | 40.00 | 1.63 | 3.00 | 27.01 | 22.51 |
| hac 7 | 13.00 | 72.00 | 156.00 | 46.15 | 1.56 | 3.00 | 14.62 | 18.74 |
| aac 6 | 12.00 | 56.00 | 132.00 | 42.42 | 1.62 | 3.00 | 16.43 | 24.90 |
| aac 14 | 12.00 | 54.00 | 132.00 | 40.91 | 1.64 | 3.00 | 16.63 | 25.20 |
| hac 4 | 10.00 | 42.00 | 90.00 | 46.67 | 1.58 | 3.00 | 9.82 | 21.81 |
| hac 28 | 10.00 | 40.00 | 90.00 | 44.44 | 1.78 | 3.00 | 16.53 | 36.74 |
| aac 5 | 10.00 | 28.00 | 90.00 | 31.11 | | | 21.67 | 48.15 |
| aac 7 | 6.00 | 24.00 | 30.00 | 80.00 | 1.20 | 2.00 | 0.60 | 4.00 |
| hac 31 | 6.00 | 12.00 | 30.00 | 40.00 | 1.93 | 4.00 | 6.50 | 43.33 |

**Legend**: Size: Size of ego network; Ties: Number of directed ties; Pairs: Number of ordered pairs; Density: Ties divided by Pairs; AvgDist: Average geodesic distance; Diameter: Longest distance in egonet; Ego Betweenness: Betweenness of ego in own network; Normalized Ego Betweenness: Betweenness of ego in own network
**Source:** Data processed by the authors

The first feature that characterizes the ego-networks is their size (size column), which depends on the number of direct ties that each enterprise has. The enterprises have a different position in the table depending on the number of ties.

Looking at the composition of the ego-networks (table 4), it can be observed that each of them has several enterprises belonging to the same family and in 78% of cases there is at least one member of the other two families as well. This shows that the enterprises cooperate with one another regardless of membership in another family.

**Table 4** Presence of members of the three families in each ego-network

| | hac 30 | hac 28 | hac 23 | hac 4 | hac 1 | hac 7 | hac 2 | aac 14 | aac 1 | aac 5 | aac 6 | cac 3 | res 1 | res 15 | res 2 | hac 17 | aac 7 | hac 31 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| hac 30 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 |
| hac 28 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| hac 23 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 |
| hac 4 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| hac 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| hac 7 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| hac 2 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| aac 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 |
| aac 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| aac 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 |
| aac 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| cac 3 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| res 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| res 15 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| res 2 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| hac 17 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| aac 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| hac 31 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |

**Source:** Data processed by the authors

The *tairs* and *pairs* indices, (table 3) show the degree of connectivity within each ego-network. High values of the indices correspond to a greater degree of connectivity. The data show that when the number of members of the same family increases, connectivity within the ego-network improves. This high level of cooperation can only be explained by the fact that the firms are bound together by ties based on trust (Purpura, 1995; Adobor, 2005).
Another significant result emerges from the high values reached by density index. This shows that there is actually considerable cooperation between the enterprises that belong to each ego-network. Finally, by combining the values of the density and Normalized Ego Betweenness indices, it is clear that the enterprises that are involved in the ego networks present at the destination recognize the leadership of the ego enterprise (Balkundi and Kilduff 2006) and therefore of the family of belonging.

Based on the results of the analysis of the indices, it can be stated that at the tourist destination of San Vito Lo Capo, each enterprise belonging to the three families has no ego-network large enough to manage the entire system.
It is the family, among the three identified, which manages to directly influence the greatest number of firms. However, the single family cannot manage and coordinate the commercial relations of the whole system on its own. The three major families are able to reach and influence 91.3 % of the enterprises (equal to 73 units) at the tourist destination of San Vito Lo Capo.

## Final consideration for tourist destination building

As seen within the tourist destination of San Vito Lo Capo, the leading role is played by a set of entities that are bound together by ties of kinship. It was observed that each enterprise alone cannot influence the entire destination because its scope of influence is limited to the size of its ego-network. To overcome this problem, and to be crucial at system level, enterprises are using their kinship ties as an informal network system to coordinate actions. The presence of coordination is known within the individual ego-networks in which management of member activities is supported both by the other members of the same family and by members of the other two families.

All this involves the determination of the rules of conduct that are shared by all three families and that are reiterated within each ego-network.

Within each ego-network, the enterprises share these rules of conduct that go on to become rules of the system. These system rules and the ensuing behaviors tend to remain relatively stable over long periods of time (as argued by Hayek, 1973). These cultural norms, supported by the system of kinship, produce compliance, govern the interactions among individuals and allow the development of the tourist destination.

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