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Coopetition and sustainable competitive advantage. The case of tourist destinations

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HIGHLIGHTS

- The paper proposes a model of coopetition and the determinants of firm performance.
- The model is tested by data from Naples and Sorrento based on respondents from SMEs.
- It is found coopetition improves performance and key determinants were numbers of links and trust between partners.

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ABSTRACT

This research paper focuses on coopetition among small and medium tourism enterprises (SMEs), and has two objectives. First it makes a theoretical contribution by establishing a model of variables that induce coopetition, the degrees to which coopetition exists and the relationship between those variables and firm performance. Second, it tests the modeling in the context of the tourism industry in Naples and Sorrento, Italy. The former comprises a sample of 149 accommodation providers and the latter 169. Building on survey data and local linkages between accommodation providers and SMEs in tourism it is found that coopetition improves performance but a key determinant is not only numbers of links but also acquired trust between partners.

1. Introduction

In an era of globalization, new markets and business models, firms seek new opportunities through which they can gain competitive advantages. Traditionally, most contributions in strategic management have treated the concept of competition to be opposed to that of cooperation when focusing on sources of advantages for firms (Caves & Porter, 1977; Barney, 1986).

Over time, there has been a growing attention to the issue. Even studies that consider both aspects tend to distinguish between the concepts, considering them as opposites or different in terms of contents Yami, Castaldo, Dagnino, and Roy (2010), p.2) describe competition as a way to encourage "the search of new rent-generating combinations of resources, skills and processes" while cooperation allows "access to rare and complementary resources".

The interest in coopetition as an intensive simultaneous process of competition and cooperation has gained ground in the last decade, even if with a rather fragmented set of contributions (Morris, Kocak, & Özer, 2007; Padula & Dagnino, 2007; Walley, 2007; Yami et al., 2010; Gnyawali, He, & Madhavan, 2008; Bengsston & Kock, 2014). Most works refer to dyadic relationships between big firms or between a focal firm and its suppliers/clients (Bengsston & Kock, 2000). Such relationships take place in different directions: a) vertical, in terms of supplier-customer diads; b) horizontal, between direct competitors; and c) at a network level, with different actors and complementors in the value network (Czakon & Rogalski, 2014, p. 30).

In this scenario, we chose to deepen the analysis with reference to networks comprising different firms, to study the main motivations to cooperate between competitors, and to see if high performance systems (destinations) show different levels of competitiveness. Other studies (Gnyawali et al, 2008) consider coopetition within networks from the perspective of a firm, and examine how a firm's position in a coopetition network influences its competitive behavior. We embrace a different perspective and deliberately concentrate on coopetition networks as units of

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analysis, mainly made of small and medium enterprises, without a bigger firm that governs the whole network. In this paper, we verify if the overall level of coopetition of the network changes between destinations with different levels of performance. We test our hypotheses on coopetition networks in tourist destinations. We define destinations as "areas capable to attract tourists as main places to visit" (Della Corte, 2000; Tamma, 2002; Martini, 2005; Conrady & Buck, 2009; Franch, 2010; Kozak & Baloglu, 2010; Della Corte & Sciarelli, 2012).

The aim of this research is therefore twofold: from a theoretical point of view, the paper represents an advance in the literature on coopetition in studies of strategic management. It in fact concentrates on the main strategic factors that induce competitors to cooperate as well as on the relative intensity and interactions between cooperation and competition. More specifically, we focus on coopetition networks made of small and medium enterprises (SMEs) with different strategic behaviors. Additionally, we focus on the tourism industry, which appears to be particularly characterized by coopetitive dynamics. We in fact consider coopetition networks at a tourist destination level. For this reason, we conducted an empirical analysis at two destinations, to analyze firms' strategic behaviors and to identify the intrinsic aspects of competition, cooperation and interaction between competitive and cooperative strategic behaviors. We subsequently suggest an index of coopetition, that can be applied to any destination. This answers both theoretical and empirical perspectives, aids policy makers to better understand and manage companies operating in a dynamic coopetitive environment.

2. Literature review: a definition of coopetition

Studies on coopetition commenced at the beginning of the twentieth century, when the Sealshipt Oyster Company coined the term co-opetition in defining its dealers. Cherington (1913) considered the competitive mindset and defined a competitor as "the oyster sold from the wooden tub", specifying that dealers are not in competition with another one, but in co-opetition to better develop their individual businesses. Even if not cited in further studies, this shed light on the possibility that a cooperative approach between competitors can create benefits for the whole market. Research on game theory in the seventies produced some further hints for the development of two opposite streams of research: one that, recalling the neoclassical economic theory, asserts that competition and cooperation cannot coexist (Gomes-Cassares, 1996), and another developed within strategic management, behavioral theory and game theory, stating that cooperation and competition determine different actions, which nonetheless can be interdependent (Chen, 2008).

According to the neoclassical economic theory, people have rational preferences, so individuals maximize their utility and firms maximize their profit on the basis of full and relevant information (Jevons, 1905; Edgeworth, 1881; Pareto, 1906). Contributions on game theory furthered this view by introducing the possibility modelling the strategic interaction between two or more players in a context with a certain sets of rules and outcomes. This theory highlights that firms manage their relationships through actions and reactions and can choose to act either in a coalitional or in a non-cooperative game. A central assumption is that the players are rational, which means that a player "always chooses an action which gives the outcome he most prefers, given what he expects his opponents to do" (Turocy & von Stengel, 2001). Over time, the scenario has progressed to consider the industry as an arena in which there are not only win-lose situations but also win–win situations for the players. Game theory can shed light on situations where firms and other organizations have to interact strategically

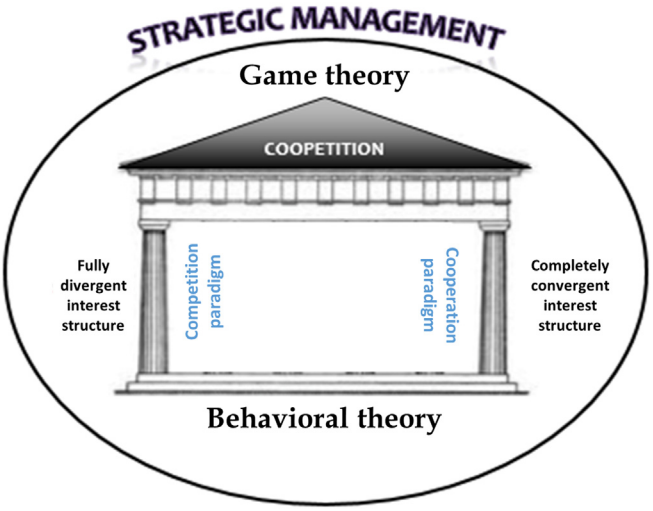

Fig. 1. Thereotical background of coopetition.

and individual actions directly affect the payoffs of others (Shy, 1995). At this stage, attention has moved towards the possible relationships between direct competitors.

Subsequent key contributions have determined relevant shifts in studies of strategic coopetition, not only within game theory, but also within resource-based views and behavioral theory. The analysis of the different pieces on the field is very useful since it permits a framework that well explains the basic assumption of coopetition, summarized in (Fig. 1).

Brandenburger and Nalebuff (1996) use game theory to face the challenge of the Dr Jekyll and Mr Hide dilemma. This is based on the assumption that, rather than seeing every player as a threat, many players may complement each other even if they are competitors. Therefore, it is possible to embrace the paradox of looking for complementary opportunities while watching for competitive threats: firms can engage in complementary markets and compete in dividing those markets. By avoiding mutually destructive strategic behaviors, firms can achieve win–win conditions.

The derived PARTS model is based on the identification of a network of actors (players), who can be both competitors and complements, thus generating Added Value, that is the wider size of the pie that a firm can get by being in the game, and the Rules and the Tactics are so developed by putting oneself in the other parties' shoes in trying to anticipate reactions to actions, also proceeding in the "fog". The basic assumption is therefore the prisoner's dilemma, which presupposes that parties tend to maximize their own benefits and reduce their own costs, as in the "tit for tat" strategy when benefits from cooperation are higher than from competition or defection.[1] Then it becomes a "variable-plus-sum game" rather than a "zero-sum" one (Rouse, 2005). Combining cooperation and competition, in fact, players can generate "win-win-win" situations in what is gained from the overall actors involved in the process (here including the customers) is greater than the combined sum of what they are able to generate operating only with competition (zero-sum game) or cooperation separate behaviors (plus-sum game).

This should mean that coopetition strategies could generate a

[1] Dagnino and Padula (2002) describe coopetition as "a matter of incomplete congruence of interests and goals concerning firms' interdependence". Luo (2004) focuses on the possibility "to create a bigger business pie, while competing to divide it up".

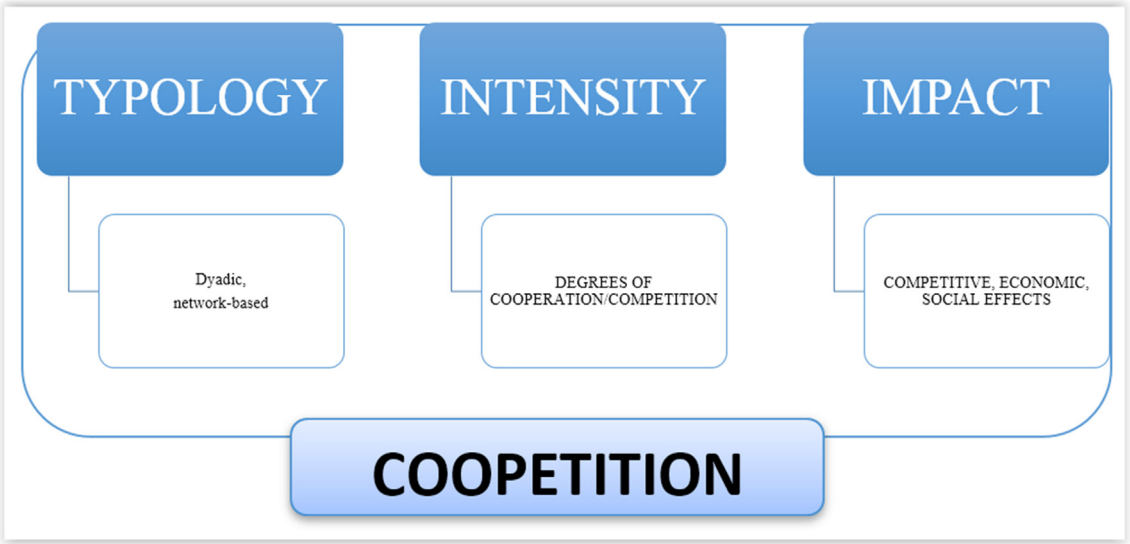

Fig. 2. Main typos of coopetition and nature of the relationships.

competitive advantage. By combining this view with resource-based perspective, Lado, Boyd, and Hanlon (1997) describe the "syncretic rent seeking strategic behavior", thus linking the coopetitive approach with the competitive advantage objective. Rent seeking refers to the search for resources and capabilities to acquire and/or develop value enhancing strategies to gain above normal results[2] (Rumelt, 1984). The above normal results depend on the level of economic rents, which refer to the returns generated by coopetition strategies over those of the best alternative. Therefore, results depend on the use, allocation and eventual exchange of strategic resources (Rumelt, 1987) in the implementation of such strategies.

In order to better understand how coopetition behavior can develop, different aspects have to be taken into account (Fig. 2): the typology (dyadic versus networks); the intensity of the coopetitive dynamics within involved actors (levels or competition and cooperation); the relative impacts (in terms of competitive advantage, that is economic and social).

Looking at the possible typologies, from dyadic relationships to networks, these relationships can be both horizontal, vertical and multiple (Bengsston & Kock, 2014). The field of study that concerns the "network approach" (Powell, Koput, & Smith-Doerr, 1996) is also applied to Small and Medium Enterprises (Gnyawali & Park, 2009; Levy, Loebbecke, & Powell, 2003), that face numerous challenges in the emerging markets where there are high R&D costs, disruptions in technological innovation and high risks (BarNir & Smith, 2002; Gomes-Casseres, 1996; 1997). Scholars concentrate either on the possibility of creating economies of scale, reducing risks, and leveraging resources together (Morris et al., 2007) or on the benefits that the firm with a central position (focal firm) can get by being in the network (Gnyawali & He, 2006). These situations apply to the tourism industry (Wang & Krakover, 2008; Soubeyran & Weber, 2002). For these reasons, it is interesting to analyze the dynamics of competition and cooperation that occur between SMEs and their attitudes in adopting coopetitive behaviors. The definition that, in this wide range of situations, we adopt in this research is the following (Della Corte & Sciarelli, 2012, p. 369): a coopetitive firm *has some cooperation relationships with firms that are, at the same time, competitors in some other markets* (*Dowling, Roering, Carlin, & Wisnieski, 1996*) *or mainly in the same market.*

As regards the nature of coopetition, it can be generated either by spontaneous behaviors or by guided top-down processes. As underlined before, most of the cited literature concentrates on inter-firm relationships in which there is a dominant partner (Eikebrokk & Olsen, 2005). *Less attention has been, up to now, paid to relationships between small and medium enterprises in contexts which lack key players.*

With reference to SMEs, scholars have identified different approaches with different degrees of coopetition respectively. This statement can in fact modify firms' dynamics within a business since "an actor's decision to cooperate will reduce the degree of competition with other actors, and conversely, their decision to compete will decrease the degree of cooperation among them" (Damayanti, Scott, & Ruhanen, 2013, p.4).

Hence, it is important and still not explicitly analysed if these situations depend on the presence of pivotal actors and if such actors have particular characteristics that facilitate these processes, rather than the conditions for coopetition arising as spontaneous.

With reference to the degree of coopetition, it is relevant to take into account the possibility that firms may adopt high competition and high cooperation behaviors as well as low competition and low cooperation (Bengtsson, Eriksson, & Wincent, 2010). Besides, the latest literature shows that it is also possible to measure the degree of coopetition looking at the intensity of cooperation between competitors and the degree of distance (dependency) between competitors (Easton, Burrell, Rotschild, & Shearman, 1993; Bengsston & Kock, 1999).

As regards the impacts, and the possibility of generating a superior performance (Ritala, 2012; Pike, Yang, & Roos, 2012; Hsieh, Lin, & Yuan, 2013) through coopetition, the topic is explicated in the next paragraph.

At this stage, a first gap in the literature can be drawn, since contributions mainly focus on the nature and on the source of coopetition, and concentrate less on the importance of the benefits these relationships create and the mechanisms of interaction between the two variables: (Gnyawali & Park, 2011). *There is limited research about why and how firms engage in coopetition, how coopetition dynamics affects the industry (their impacts) and what factors drive coopetition in contexts characterized by high levels of innovation.*

[2] For a full view of the "above normal results" definition, see Barney, 1996 e ss. This concept refers to results that are higher than investors' expectations, that is their opportunity cost.

2.1. Levels of coopetition and impacts on performance

According to prior studies, coopetitive dynamics should have a positive impact on performance. The lack of empirical investigations (Gnyawali et al., 2008) does not provide enough evidence to measure these positive impacts, but the contributions on the theme highlight that firms engaged in coopetitive relationships can derive valuable resources and strengthen their competitive capabilities (Gnyawali & Madhavan, 2001). In terms of competitive strategies, cooperation between competitors could create added value for the customers as the firms can provide integrated offerings (Mione, 2009) and share risks and costs of new initiatives or new markets (Ritala, 2012). Sharing this optic, it seems interesting to investigate the effects of collaboration between competitors, for example, in terms of popularity (brand) and activation of commercial relations among firms. Furthermore, the literature on the impacts of coopetition mainly addresses the effects of coopetition on firms' behaviors (Gnyawali et al., 2008). In this sense, scholars are mainly focused on the intangible effects of coopetition on firms' performance, studying them in terms of mutual benefits, trust and commitment (Morris et al., 2007) but paying less attention to the economic impacts of these behaviors on firms' performance.

There are a few studies that attempt to establish a relationship between coopetitive strategy and market performance, with reference to what can be called "coopetitive advantage", (Gnyawali et al., 2008).

In strategic management, one idea is that of sustainable competitive advantage. In this context, we embrace a resource-based theory (RBT) definition of competitive advantage. As the result of resources' use and bundling within the firm (Barney, 1996): a resource is considered to be strategic and therefore a source of competitive advantage according to three main variables: i) value (that refers to the capacity of the resource to neutralize external threats and/or to catch or create opportunities in order to increase the difference between revenues and costs); ii) rareness, that means possessed by a number of firms inferior to that of perfect competition settings; iii) difficult or costly to imitate. The above cited variables are studied within the well known VRIO framework, according to which when a resource is just valuable, it can be taken to competitive parity; when it is also rare, it can create temporary competitive advantage; if it is also difficult or expensive to imitate (either for its history or for its own relationships, or for specific ambiguous processes someway rooted in the organization), it can be the source of a sustainable competitive advantage. All these implications, however, take place only when the resource is used in organizational terms; otherwise they just remain potential rather than utilized resources.

In the analysis of the roots of a competitive advantage, even strategic choices and dynamics, if valuable, rare, difficult or costly to imitate and used organizationally can become the source of a competitive advantage and it is possible to extend the concept to coopetition strategies. The analysis can be conducted at the single firm level or at the aggregate level: in the former case, it will concentrate on the specific coopetition strategies adopted by the firm that is the unit of analysis; in the latter, it will refer to the impact of coopetition dynamics on the whole system performance, appropriately valued and measured.

In general, competitive advantage requires the study of the connected economic performance. According to RBT, the economic performance is below normal when firms do not have any valuable resource; normal when they are valuable, taking the firm to competitive parity; and above normal when they generate either temporary or sustainable competitive advantage. The different levels of an economic performance: below normal, normal or above normal, have to be considered with reference to competitors in the market as well as to the owners' expectations and can be measured according to different approaches with different aims (contributions on firm survival (Alchian, 1950; Demsetz, 1973; Freeman, 1979); or based on accounting measure and studies based on the analysis of multiple stakeholders view of performance (Mason and Mitroff, 1981), or on financial measures (Copeland, Weston, & Shastri, 2005).

RBT is in fact consistent with coopetition, considering that "bunching together creates complementarities that develop the market even if there's sometimes more competition in dividing it up" (Branderburger & Nalebuff, 1986, p. 34).

With reference to aggregates, however, different systems of measurement are necessary, since they regard the aggregate as a whole, with both quantitative and qualitative aspects. The parameters strictly depend on the specific sector activities of the network, that determine the relative specificities. In this case, we consider the impact at a tourism destination level.

3. Coopetition in tourism industry

The tourism industry appears as one of the more interesting sectors in which to verify the gaps identified above for several reasons. Firstly, the higher level of complementarity between tourism services and the fact that firms often have to engage into collaboration, in spite of being direct competitors, means this industry is of interest. Secondly, in many tourist destinations there are many small and medium enterprises, without a bigger focal firm and this makes the analysis much more challenging, compared with the typical strategic networks' schemes in which, in most cases, there is a focal firm.

The global tourism paradigm also demands greater cooperation and collaboration both at local and at regional level to ensure a quality tourism offer that can compete effectively at the international level (Edgell & Haenisch, 1995).

It also emerges from previous studies that past research has mainly concentrated on collaboration rather than on the interactions between competition and collaboration, considering the two topics separately (Jamal & Getz, 1995; Cai, 2002; Huang, 2006, Beritelli & Laesser, 2011).

Novelli, Schmitz, and Spencer (2006) developed theories related to networking, clustering and agglomeration to analyze tourism impacts on local growth and regional development. In a tourism network, partners tend to develop long-term cooperative efforts to meet both their individual and mutual goals; in fact, they recognize their interdependence and are more likely to share information and to adopt a constructive problem-solving approach. Beritelli and Laesser (2011) emphasize that the planning and marketing of community-structured destinations requires a cooperative approach among various different actors who create a network.

The debate on the topic has shown an increasing interest over time, with reference to business-to-business horizontal relationships (i.e. between travel agencies – Huang, 2006; between hotel firms – von Friedrichs Grängsjö & Gummesson, 2006) as well as to vertical relationships – for example, hotels and travel agencies (Guo, Zheng, Ling, & Yang, 2014).[3]

Other studies on this topic have assumed the process of value

[3] Guo et al. (2014) analyze the tourism online marketplace, in which hotel websites and online travel agencies (OTAs) also base their competition on price. Therefore, it is necessary to balance cooperation and competition between hotels and OTAs through online coopetition: the relationship is based on a unit commission fee of the hotel to maintain the cooperation. Moreover, the cooperative model may be enriched by quantity discount contracts based on revenue sharing that eliminate the competition and coordinate the participants in the online supply chain.

creation and appropriation in tourism networks (Novelli et al., 2006; Lemmetyinen & Go, 2009; Cabiddu, Lui, & Piccoli, 2013) and the relative position of firms within networks (Casanueva, Gallego, & Sancho, 2013, 2014; Marcoz, Mauri, Maggioni, & Cantù, 2014; Rusko, 2014). In the tourism sector coopetition has been considered with reference to destination management and marketing processes for whole areas (Wang & Fesenmaier, 2007; Wang, 2008; Bhat & Milne, 2008; Marcoz et al., 2014), as well as with reference to an analysis of the levels of coordination (Andergassen, Candela, & Figini, 2013) and interactions between concurrent destinations (that is, coopetition at destinations' levels – d'Angella, Go, 2009; Fyall, Garrod, & Wang, 2012; Mariani & Kylänen, 2014; Scott, Cooper, & Baggio, 2008; Wang, Lang, & Sun, 2014; Zemla, 2014). In particular, some studies concentrate also issues at governance (Volgger & Pechlaner, 2014). Few contributions try to explain why networks often fail or do not take off (Della Corte & Aria, 2014). Partners need to perceive benefits that can arise from collaboration: without this perception, they may not understand the importance of networking and decide to implement a more familiar and known alternative strategy (Ramayah, Lee, & In, 2011).

Looking more specifically at the competition vs cooperation dynamics, Wang and Krakover (2008) state that coopetition relationships emerge when tourism businesses cooperate in some activities in a collaborative destination-marketing context (i. e. marketing campaigns) while competing in other activities. This behavior involves two different interaction logics. On the one hand, there are conflicting interests in getting a bigger piece of the business once the visitors are in the destination; on the other hand, it is necessary to pool resources and to develop mutual commitment to achieve the common goal of attracting the visitors to the destination.

Looking at inter-destination competitive dynamics, too much competition among destinations within a region weakens the overall effectiveness and efficiency of regional tourism development (Zemla, 2014). However, having a neighboring destination with a very competitive offer might not necessarily be a threat but may also create opportunities. Cooperation might be successful and durable only if destination stakeholders see that some benefit is achievable. Zemla demonstrates that when tourism destinations are successful and have strong brands they rarely search for inter-destination cooperation as they can achieve their goals without this effort and without the risk of "sharing" the success with competitors. Nonetheless, temporary competitive advantage might not be sufficient to ensure long-term success and firms should look for new ideas: in this perspective, inter-destination cooperation is an attractive option.

Another relevant concept is that geographic proximity, co-location and the consequent formation of micro clusters are the sources for unintentional coopetition (Rusko, 2008; Kylänen & Rusko, 2011). Destination Management Organizations (DMO) usually favor both intentional and unintentional coopetitive connections between firms and other service providers, or between individual workers, thus creating more and more versatile strategic options.

Another reason for inter-destination coopetition is the highly dynamic and turbulent environment (Fyall et al., 2012), since competing and co-located companies have to cooperate for destination marketing purposes, to improve the attractiveness of anyone destination.

However, both tourism companies and destinations need to evaluate the advantages and costs stemming from the specific coopetitive relationships they are initiating, cultivating and maintaining. The way of cooperation can mix with competition and their relative specific weight, inside the partnership, might be changing over time (Mariani, Baggio, Buhalis, & Longhi, 2014).

Also institutional contexts can activate coopetition dynamics, encouraging competing co-located companies to cooperate with each other (Mariani & Kylänen, 2014). This situation is particularly relevant in the tourism sector where public stakeholders support a collaborative attitude among tourism businesses. Public–private relationships can in fact contribute to a better development and promotion of a tourism destination and to the improvement of information and knowledge sharing within the business aggregation. In such logic, coopetition among tourism businesses can shift from a prevalently short-term basis to the long-term, when public and private stakeholders understand the benefits in terms of enhancement of the brand image of the destination and attracting a higher number of visitors.

For the above factors, a firm's strategies and performance in the sector are often connected with the strategic networks that operate within tourist destinations. Strategic networks can be conceived as networks that "encompass a firm's set of relationships, both horizontal and vertical, with other organizations – be they suppliers, customers, competitors, or other entities – including relationships across industries and countries" (Gulati, Nohria, & Zaheer, 2000, p. 203). Tourist strategic networks are also defined as Local systems of tourism offer (Rispoli & Tamma, 1995; Martini, 2002; Della Corte, 2000; 2013) since they are bound to their specific territory and are linked to local resources and to their relative potential attractiveness. The territory is itself part of the system of the offer, that cannot always be located elsewhere. In local systems of the tourist offer, firms tend to promote and sell the destination (territory) where they operate, with all its specific resources (both natural and historical/artistic) that cannot be moved from their own location.

Therefore, the contributions that mainly refer to the tourism industry have the merit of enlarging significantly it how small and medium enterprises operate with a more specific focus on strategic networks and on tourism destinations. However, in spite of the developed literature, some further research is necessary, both theoretically and empirically, in order to verify if coopetition can really favor sustainable competitive advantage, both for the single firms and for the destination as a whole.

Starting from the assumption that a destination has some distinctive features,[4] it is necessary to understand the relationships that can occur between firms of the same business (i.e. accommodation) and/or of the same sector (i.e. accommodation, transports, etc. within the tourism industry).

It is also important to evaluate the coopetition aftermaths for the different small and medium size tourism enterprises.

The literature on the subject identifies different variables that measure the performance of a destination. The main ones are the international tourist arrivals and overnight stays the average length of stay, the destination accommodation capacity, the levels of investment, and financial ratios of local firms, together with indicators of infrastructure quality, human resource quality and natural/environmental quality (Assaf, Tsionas, 2015; Barros, Botti, Peypoch, Robinot, & Solonandrasana, 2011). Other relevant variables are: the increased number of visitors, the enhanced competitiveness and the extended season in evaluating destination

[4] The distinctive features of a destination are: access, in terms of accessibility of the location and mobility within it; attractions, which are local resources able to attract demand; accommodation, with reference to the presence of hotels or other accommodation; amenities, which include complementary activities necessary to complete the tourist offer (restaurants, shops, local crafts, recreational activities); assemblage, that refers to the existence of proposals and package tours for the location; ancillary services, which are companies offer sightseeing, tours and events, dedicated transport services for tourists (incoming companies) and activities of local authorities and support organizations that define the paths of the tourism strategic development in the area (policy of tourism).

performance improvements (Kozak & Rimmington, 1998). From a Resource-Based View optic, sustainable competitive advantage can be measured by these variables, to check long lasting as well short-term market performance.

It is also interesting to question if coopetition can act as a stimulus for other actors of the supply chain? Can coopetition strategies significantly improve the competitive environment and become themselves sources of competitive advantage for the whole system of firms? *The literature on the topic still lacks an explanation of how the two factors (competition and cooperation) interact and implications arise from such interactions.*

4. Research questions

Starting from these reflections, this research has the objective of verifying empirically if coopetition can be a source of competitive advantage and what are the interconnections between competition and cooperation.

With this purpose, we link to Lado et al.'s model (p. 119), to check if in high performance destinations the syncretic rent seeking behavior, characterized by high competition and high cooperation's orientations, prevails. More specifically, our aim is to verify if, in areas with different levels of performance in tourism, there is a different combination between levels of cooperation and levels of competition.

To analyze this, we focus on two famous Italian destinations: Naples and the Sorrento Peninsula. These are among the most attractive tourist destinations in Southern Italy, but each with a different pattern of tourist performance.

More specifically, we selected these areas for different reasons. First, they are well developed tourist areas, with a relevant set of attractive factors, characterized by precise geographic of boundaries (Della Corte, Aria, 2014, p. 7). Therefore they both are endowed with strategic resources. Napoli is an art-city, located just in the middle of the Gulf of Naples. Its main attractions are cultural resources, landscape, eno-gastronomy, a folklore to cite the main ones. The Sorrento Peninsula is very close to the city of Naples, made of small cities and promoting all the surrounding area: Pompei, Hercullaneum, the islands, and the city of Naples in terms of excursions. Even if they represent two different tourist destinations, they are in some cases competitors within the so called “Neapolitan Riviera”: this area includes the coast, cultural attractions, the islands and therefore the tourist who chooses one of the two to stay can visit the other during his or her visit.

Since they are so close, they are also similar in terms of typologies of firms: mainly small and medium enterprises, even if at different levels of development (some have acquired more structures over time and/or have invested in complementary activities, or are the results of vertical integration of incoming tour operators), mostly family-owned, on the market from generations and with a good positioning and image. However, from an entrepreneurial point of view, as shown in other studies (Sciarelli, 2007). The Sorrento Peninsula appears more dynamic, with extremely high levels of entrepreneurship.

Between the two destinations there are, however, some differences in performance. In order to measure their performance, we used parameters that included: 1) number of hotels and relative accommodation capacity in terms of number of beds (average size of local accommodation structures), which expresses the intensity of investments in accommodation in the destination; 2) tourist flows, relative yearly increase and relationships between arrivals and overnights, that are a measure of the destination market performance. Both variables have already been considered as relevant in evaluating destination performance by several scholars. Assaf and Tsionas (2015) studied as principal performance variables the international tourist arrivals and receipts and the average length of stay; Barros et al. (2011) conducted their research using as relevant inputs the accommodation capacity and the arrivals. Botti, Briec, and Cliquet (2009) principally analyzed the tourist arrivals; Bosetti, Cassinelli, and Lanza (2007) and Barros, Dieke, and Santos (2010) took into account the total presences of tourists and the relationship bed/nights; Fuchs (2004) considered bed capacity. All these indicators are in line with the Resource-Based perspective, since both areas are endowed with resources complying the VRIO framework and such performance measures are commonly considered as expression of a destination's competitiveness.

The two areas are rather similar in composition of their accommodation structures.

The area of Naples has 149 accomodation provides 12.066 bed-spaces. The majority of the bed spaces are concentrated in three star hotels (40%), followed by four star hotels (29%), one star hotels (17%), two star hotels (11%), while the five star hotels represent 3% of the total.

The Sorrento Peninsula possesses 163 hotels and 16.384 bed-spaces. For this area as well, the majority of the bed-spaces is represented by three star hotels (47%), followed by four star hotels (35%), two star hotels (10%) and one star hotels (4%). The five star hotels represent the 4% and are mainly concentrated in the city of Sorrento.

However, the data show that Sorrento has a better performance than Naples (Fig. 3). The average size of the hotels in Sorrento is greater than 100 beds while in Naples it approximates to 80 beds.

Looking at the Table 1 it is evident that the peninsula of Sorrento is characterized by an average length of stay (ratio between overnights and arrivals), that is almost twice that of Naples.

In order to clearly identify the main factors that refer to coopetition, we define the research questions as being:

1: Is there a different degree of cooperation between the firms in the two selected areas? Why?
2: Is there a different degree of competition between the firms in the two selected areas? Why?
3: Is there a relationship between the degree of competition and cooperation? If yes, does it show differences between the two selected areas?

This approach assesses both aspects individually as well as their relationships, thus verifying if high levels of competition can make collaboration more difficult.

Of course this kind of analysis requires a quantitative analysis, based on the study of different aspects of each single firm included in the survey, going deeply into the strategic decision process to single out the specific characteristics of their relative strategic

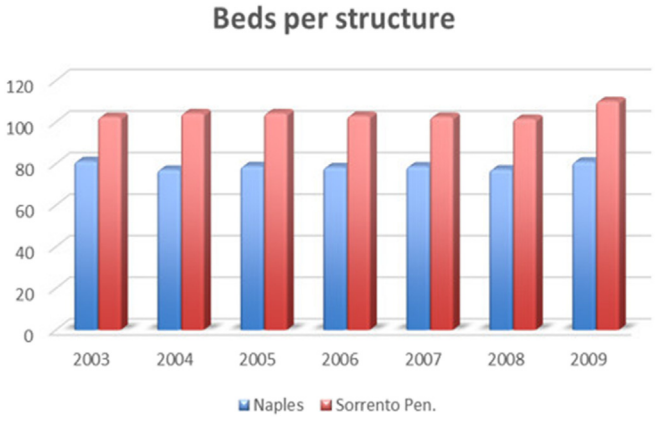

Fig. 3. Yearly time series of beds per structure in Naples and Sorrento Peninsula.

Table 1
Arrival, Overnight and Average length of stay in Naples and Sorrento Peninsula in 2000–2011 (source: Tourism Office of Campania Region).

Year	Naples						Sorrento Peninsula					
	Italian			Foreign			Italian			Foreign		
	Arrival	Overnight	Average length of stay	Arrival	Overnight	Average length of stay	Arrival	Overnight	Average length of stay	Arrival	Overnight	Average length of stay
2000	468917	1112007	2.37	325208	600242	1.85	144597	456351	3.16	431816	2016398	4.67
2001	427242	1142878	2.68	324271	960963	2.96	116206	350216	3.01	446671	2093150	4.69
2002	424951	1137747	2.68	320726	980975	3.06	132015	402475	3.05	408665	1999474	4.89
2003	434697	1204012	2.77	313270	922996	2.95	127826	366556	2.87	374147	1898415	5.07
2004	434226	1171407	2.70	331427	1023785	3.09	128089	349800	2.73	401051	1900293	4.74
2005	384429	913010	2.37	399928	1204687	3.01	116823	330523	2.83	402321	1901652	4.73
2006	442281	1040898	2.35	387462	938404	2.42	111654	328144	2.94	403341	1903054	4.72
2007	450851	987521	2.19	399792	959039	2.40	108685	386274	3.55	370022	1909712	5.16
2008	459883	950652	2.07	336340	776857	2.31	101925	295038	2.89	324314	1558212	4.80
2009	425611	879536	2.07	330117	826442	2.50	146168	421281	2.88	313421	1441994	4.60
2010	411627	904713	2.20	317607	821842	2.59	154210	441795	2.86	389818	1696750	4.35
2011	478011	971892	2.03	430228	1158437	2.69	135519	374324	2.76	427053	1861593	4.36
Mean 2000–2011	436894	1034689	2.37	351365	931222	2.65	126976	375231	2.96	391053	1848391	4.73
Mean 2000–2005	429077	1113510	2.59	335805	948941	2.82	127593	375987	2.94	410779	1968230	4.80
Mean 2006–2011	444711	955869	2.15	366924	913504	2.49	126360	374476	2.98	371328	1728553	4.67

behavior to the issues of competition and cooperation simultaneously. This is the reason why we decided to proceed with the methodology explained in the following section of the paper.

5. Methods

5.1. Sampling and questionnaire construction

Quantitative Research is used to generate numerical, ordinal or categorical data that can be transformed into useable statistics. It is used to quantify attitudes, opinions, behaviors, and other defined variables – and generalize results from a representative sample population.

The objective of our research is twofold. Firstly, we aim at measuring the relative degree/intensity of collaboration and competition of a representative group of firms of the local tourism industry in the areas of Naples and of Sorrento Peninsula. Secondly, we aim at studying the overall level of coopetition in both areas, through a comparison of the constructs of cooperation and competition. We then establish an index able to synthetize and express the combination of the two variables.

From an operational perspective, the study was developed in three phases:

1. Sample selection;
2. Data collection via questionnaires;
3. Data processing and analysis.

In order to define a specific profile of the sample firms we decided to involve local firms that involve accommodation, amenities (including restaurants, city sightseeing) and incoming travel agents and tour operators. This composition is in line with other studies on the subject (Ramaya et al., 2011).

With reference to the whole sample, we selected the more competitive firms in the market, either held by generations, or rather new (settled in the last three years) but thought to be extremely innovative in their strategic and marketing performance. Thus the sample involved the most significant firms from both areas.

As regards hotels, we considered 4 and 5 stars hotels that are members of national associations (specifically, Federalberghi and Confindustria) and are the most representative of the territory. We also included in the sample all the tour operators and travel agencies that work in incoming tourism and are members of both National and International associations. We then included the most famous restaurants and the firms, like city sightseeing, that contribute to create an appropriate local offer.

Of these selected units, we included the firms that allowed us to get the necessary information and in functions of decision makers' willingness to collaborate (Della Corte & Aria, 2014, p. 8).

We therefore established data set collected in a survey from a representative stratified non proportional sample of 80 firms.

Owing to our main research questions, we analysed the selected organizations over a period of six months, with interviews accompanied by visits to the firms, in order to better clarify the concepts. For this kind of analysis, it has been necessary to interview only the decision makers empowered to take strategic decisions both in terms of competition and of cooperation. So we interviewed decision makers and mainly the entrepreneurs in case of entrepreneurial or family firms or the general managers.

Then we selected the most appropriate questions pertinent for an analysis of competition and collaboration to create a complex index for studying coopetition. With such approach we were able to deepen the perceptional nature of the “coopetition-construct”. As known, the literature, starting from Luo (2004), suggests a method to measure both collaboration and competition's intensity by contemplating two main approaches (Czakon, Rogalski, 2014): first, *the structural* (Fernandez, Le Roy, & Gnyawali, 2014), mainly based on the analysis of the relative frequencies of competitive actions, their main scopes and duration on one side; and uses the network position as a proxy for collaboration. This approach has several limitations: it does not provide any information on the antecedents of such dynamics in strategic and resources' terms and it presupposes a network where there are key positionings. Also other studies (Gnyawali et al., 2006) use network analysis to proceed with such view. The second approach is *the behavioral*, that tries to examine the main drivers of coopetition (Lado et al., 1997). Within this approach, different kinds of collaboration and competition can be drawn, from passive to active. In this work we link to Lado's model and focus on active and proactive behaviors, since we base our analysis on the perception of the nature of coopetition by the involved parties in networks of small and medium enterprises, when there is not a leading actor. Therefore, even if close to the

behavioral approach, our perspective is more specifically focused on strategic behaviour. The problem was, however, the singling out of the appropriate questions to help analyse coopetitive behaviors.

With this purpose, we also considered aspects like commitment and extent of collaboration with reference to the cooperation factor (Ramayah et al., 2011). In particular, at the basis of the success of collaborative networking, the degree of commitment, measured by the duration and the repetitiveness of relationships, as well as the communication among partners have been considered, even if expanding both concepts: linkages in different activities and projects for the first and information flows and knowledge sharing for the second. On the other hand, we did not consider trust, since this is the result of a process rather than the cause for the success, but rather its antecedents. In the long term, it could however become itself a factor that favors the process but it needs time to be built.

We prepared a set of questions and submitted the list to a panel of experts in destination management, asking them to select those that in their own experience could better fit the analysis of competition, cooperation and their relative relationships. As a consequence, we got to the final list of items, that composed the three above described sections of the questionnaire. We then tested it on a group of five representative firms and eliminated some of the questions that seemed to be less clear. Questions had a closed-ended form measured using ordinal/discrete scales.

Given these premises, we proceeded with an on field analysis based on face-to-face interviews with entrepreneurs and general managers. The questionnaire was made of three main sections: the first, aimed at studying the firm's behavior in its competitive setting; the second section was based on verifying the existence of inter-firm collaborations and their relative intensity; and the third aimed at seeing if they manage, more specifically, collaborations with their competitors.

After this phase we examined the results by analyzing the degree of intensity of the coopetition between firms operating in the same field.

In each area, we investigated the reasons for which competitors decided to move towards cooperation and the activities for which firms have established a relationship. Furthermore, by using ordinal scales, we also asked their opinion about the role of cooperation between local actors of connected sectors, according to a destination management approach, and the kind of relationships that have been established between public and private actors.

Through the quantitative research, we therefore tested the degree of coopetition between firms and the way through which these relationships occur. We also took into account the possibility that the results can be used in order to provide guidance for employers in improving both their competitiveness and the performance of the entire destination.

5.2. Method tools

Exploratory Factor Analysis (EFA) is useful for determining the number of separate components that might exist for a group of items. As the goal of this analysis is to explore the dimensionality of phenomena, principal components seem to be a reasonable model to be used, although also other methods can be applied.

Principal component analysis (PCA) is a statistical procedure that transforms a number of (possibly) correlated variables into a (smaller) number of uncorrelated latent variables called principal components. We therefore adopted a factor analysis approach, Nonlinear Principal Component Analysis (Meulman J.J., van der Kooij A.J., Heiser W.J., 2004). The most important advantages of nonlinear over linear PCA are that it incorporates nominal and ordinal variables, and that it can handle and discover nonlinear relationships between variables. Also, non-linear PCA can deal with variables at their appropriate measurement level. Nonlinear PCA converts every category to a numeric value, in accordance with the variable's analysis level, using optimal quantification.

In Table 2 the results of the exploratory factor analysis show two subsets of questions, which respectively explain collaboration and competition behaviors.

The component loadings measure correlations between each of the quantified variables and the first principal component. The explained variability (EV) indicates the percentage of variability (information) of the original data that has been captured by the first principal component (Anderson, 2003). We selected questions that had high loadings (>0.40) on its first factor and relatively low loadings on the other factors. The result was an easily interpretable solution with high consistency for each of the dimension. Moreover, the variance explained in each first factor was relatively high (>75%) (Aaker, 1997).

Afterwards, we defined two formulae to create the composite indexes of collaboration and competition. These measures have been obtained as a weighted average of an appropriate transformation of the original subset of questions selected by factor analysis (Booysen, 2002).

Gnyawali and He (2006) propose an estimation of coopetition through the definition of two complex indexes of activity and variety

Table 2
Subsets of questions about inter-firms collaboration and competition identified by Exploratory factor analysis.

Subset of questions about collaboration explained variability 77.3%			Subset of questions about competition explained variability 75.9%		
CL	Description	Loadings with first component	*CP*	Description	Loadings with first component
CL_1	Num. of Local Operators with whom firms detain relationships	0.799	CP_1	Individual investment in the latest three years	0.767
CL_2	Num. of trust relationships	0.417			
CL_3	Time Dimension	0.678	CP_2	Number of investments in previous categories	0.624
CL_4	Factors that mainly influenced the idea of collaboration	0.737			
CL_5	Number of types of relationships (intensity)	0.563	CP_3	Main competitive factors	0.832
CL_6	Contents of the relationships	0.447			
CL_7	Impact of inter-firm collaboration	0.886	CP_4	Nbs of competitive factors	0.879
CL_8	Level of cooperation in local development process	0.587			
CL_9	Type of relationships with local tourist firms	0.575	CP_5	Location of main competitors	0.783
CL_{10}	Type of relationships with local authority	0.656			

Table 3
Dependence analysis between numbers of relationships and geographical area.

		Geographical area		Total
		Naples	Sorrento peninsula	
Num. of local operators with whom firms detain relationships	0	0.0%	9.4%	4.8%
	1	56.7%	18.8%	37.1%
	2	13.3%	34.4%	24.2%
	3	16.7%	28.0%	22.6%
	>3	13.3%	9.4%	11.3%
Total		100.0%	100.0%	100.0%

p-value 0.011.

of competition. That involves the collection of data from sources external to the enterprises and the construction of such a network does not take into account the internal processes that characterize different business realities as based on proxy variables.

The data collected in our paper are not just limited to sources external to the companies but are the result of the observation of business activities for a period of six months by a team of experts. That has permitted a measure of the intensity of the competition and cooperation starting from a set of information based on real business processes.

The composite collaboration index (ICL) measures the intensity of collaboration of firms as a weighted mean variables selected by Explorative Factor Analysis:

$$ICL_i = \frac{\sum_{j=1}^{s} \widetilde{CL}_{i,j} * W\_cl_j}{s}; \quad 0 \leq ICL_i \leq 1$$

where ICL_i represents the index calculated for the i^{th} firm, $\widetilde{CL}_{i,j}$ the optimal quantification value of j^{th} variable for the i^{th} firm, W_cl_j the weight of j^{th} variable obtained by loading of nonlinear PCA for the dimension competition and s a normalization factor.

ICL_i is a synthetic measure of this set of new variables and it can be interpreted as the intensity index of collaboration.

Following the same approach, we defined the intensity index of competition (ICP) as:

$$ICP_i = \frac{\sum_{h=1}^{k} \widetilde{CP}_{i,h} * W\_cp_j}{h}; \quad 0 \leq ICP_i \leq 1$$

where ICP_i represents the index calculated for the i^{th} firm, $\widetilde{CP}_{i,h}$ the optimal quantification value of h^{th} variable for the i^{th} firm, W_cp_j the weight of j^{th} variable obtained by loading of nonlinear PCA for the dimension competition and h a normalization factor.

The relationship between the two intensity indexes, "Coopetition concept", was measured by means of the Pearson correlation coefficient and it is shown by a scatterplot.

At last, *ICL* and *ICP* measures were aggregated to define a composite index of coopetition (ICO):

$$ICO_i = (ICL_i \times ICP_j)^{\frac{1}{2}}; \quad 0 \leq ICO_i \leq 1$$

where ICO_i represents the composite index calculated for the i^{th} firm and is calculated as the geometric mean of collaboration and competition indexes.

Moreover, we report the conditional distributions of the selected items by geographical area for each dimension CL and CP. To evaluate the significance of the dependence relationship between the considered characteristics of collaboration (or competition) and the geographical area, we used Pearson Chi square test. A p-value ≤ 0.05 indicates a moderate significance as well as a value $p \leq 0.01$ a strong significance.

Using a game theory approach, we tried to identify variables that can express the PARTS' model components (Branderburger & Nalebuff, 1986) to examine a set of relationships, distinguishing between the competitive rather than the cooperative. In particular, once we identified rules in terms of a number of trust-building relationships and their relative time dimension, that express a set of established relationships, we singled out variables to analyze their own perceptions (main influential factors in the decision to collaborate) of the advantages of cooperation with competitors and the tactics (contents of the relationships) put in place to develop them. The scope of this approach with its consequent "added value net" then identifies overall impacts on the whole destination (impacts on geographical areas).

6. Results

In the following tables, we report conditional distributions of responses by geographical area. To evaluate the significance of dependence relationship between considered characteristics of collaboration/competition and the geographical area, we used the exact Pearson Chi square test. A p-value ≤ 0.05 indicates a moderate significance as well as a value $p \leq 0.01$ a strong significance.

6.1. Subset CL: questions about inter-firms collaboration

As it can be noted from Table 3, it seems that there is a wider net of relationships in firms in Sorrento Peninsula in comparison with those in Naples area.

In spite of the different number of relationships, those that are declared to be trustful are but a few in numbers. The majority of the firms, in both areas, assert to have untrustful long lasting relationships, apart from some specific cases (Table 4).

This is in line with previous work (Della Corte & Aria, 2014) that show how often business networks of small and medium enterprises tend to fail or rather do not take off with the lack of trust being one of the main reasons for the difficulties in inter-firm collaboration. On the other hand, this contrasts with previous studies (Cook, 2005), according to which in tourism networks, owing to the chain relationships, the perceived risk is low. This may explain why trust seems not to have a direct impact on the extent of collaboration. On the other hand, the extent of collaboration shows a direct impact on performance, also in line with Sigala (2004), that underlines how cooperation can help to overcome a lack of resources and opportunities to develop long term competitive strategies.

However, some differences can be derived between the two areas. In the Sorrento Peninsula a wider distribution is registered, implying that even if just in some cases there are several more relationships of trust.

There is a need for some caution in interpreting these results because, as shown in Table 5, many of the relationships are recent and still of a continuing nature.

However, some significant difference exists between the two

Table 4
Dependence analysis between number of trust relationships and geographical area.

		Geographical area		Total
		Naples	Sorrento peninsula	
Num. of trust relationships	0	53.3%	46.9%	50.0%
	1	36.7%	31.3%	33.9%
	2	0.0%	12.5%	6.5%
	3	10.0%	3.1%	6.5%
	>3	0.00%	6.2%	1.6%
Total		100.0%	100.0%	100.0%

p-value 0.049.

Table 5
Dependence analysis between time dimension of relationship and geographical area.

		Geographical area		Total
		Naples	Sorrento peninsula	
Time dimension	Ongoing	100.0%	93.8%	96.8%
	Terminated for achieving objectives	0.0%	6.2%	3.2%
	Terminated for incompatibility	0.0%	0.0%	0.0%
Total		100.0%	100.0%	100.0%

p-value 0.164.

Table 6
Dependence analysis between factors affecting cooperation decision and geographical area.

		Geographical area		Total
		Naples	Sorrento peninsula	
Most influential factors on the decision to collaborate	Reciprocal advantages	80.0%	71.9%	75.8%
	Trust	3.3%	18.8%	11.3%
	Compatibility and cultural interaction	40.0%	9.4%	24.2%
	Communication flows and systems	30.0%	25.0%	27.4%
	Managerial skills	6.7%	9.4%	8.1%
	Positive attitude towards collaboration	30.0%	37.5%	33.9%
	Correct outline of the project	20.0%	6.3%	12.9%

P-value 0.027.
Note that the percentages do not add up to 100 because the question is multiple response one.

Table 7
Dependence analysis between contents of relationships and geographical area.

		Geographical area		Total
		Naples	Sorrento peninsula	
Contents of relationship	Tourist promotion of associates	23.3%	6.3%	14.6%
	Local tourism promotion	76.7%	37.5%	56.5%
	Local tourism planning	33.3%	15.6%	24.3%
	Common services	16.7%	6.3%	1.4%
	Goods' collective purchasing	16.7%	0.0%	1.7%
	Services' collective purchasing	3.3%	3.1%	3.2%
	Maintenance of common plants and equipment	3.3%	9.4%	6.5%
	Events	26.7%	21.9%	24.3%
	Incoming activities	30.0%	71.9%	51.6%
	Booking activities	46.7%	78.1%	63.0%

p-value <0.001.
Note that the percentages do not add up to 100 because the question is multiple response.

areas in factors decision makers consider more important in their decision to cooperate. The main reasons that push firms to collaboration are, in the case of Naples, reciprocal advantages, cultural compatibility and integration, communication flows and systems and positive attitude towards collaboration. However most answers mainly refer to operation management and are characterized by rather spontaneous processes (in some cases even causal). In the case of the Sorrento Peninsula, the main reasons are the propensity to collaboration and trust, and the more positive attitude towards collaboration, as if these firms were more accustomed to cooperate at least in some fields (Table 6). In the latter case there is a higher awareness of the necessity of cooperation. Also this result recalls the main results of previous works (Della Corte & Aria, 2014) that show how the "strategic and organizational cluster", with a wider and clearer vision, is mostly located in Sorrento while in Naples the knowledge-based one prevails, with less structured, more spontaneous and informal flows of communication and information. Some of the most relevant factors are in line with previously cited studies (Ramayah et al., 2011), whose results show that the extent of collaboration can predict tourism network performance, with a mediating affect on trust, commitment and communications.

These results clearly show that, while in Sorrento the relationships are more structured and oriented towards the management of incoming flows, followed by the aim of local tourism office promotion, in Naples a wider range of contents has been singled out, with maybe a more open but less focused view.

Looking more specifically at the contents of the relationships, once again in Naples there seems to be a more "generalist" interest in the overall promotional activities (local tourist promotion, events, etc.), while for firms in Sorrento "technical" relationships, like incoming and booking activities, take place (Table 7). From this point of view, Sorrento appears more in line with Beritelli and Laesser's framework of community structured destinations.

It can be noted that within the indicated activities, the contents of any given relationship are more numerous and potentially richer in the case of Sorrento (Tables 8 and 9).

Table 8
Dependence analysis between number of contents of relationship and geographical area.

		Geographical area		Total
		Naples	Sorrento peninsula	
Number of contents in the relationship	**1**	20.0%	6.2%	12.9%
	2	16.7%	0.0%	14.5%
	3	13.3%	12.5%	11.6%
	>3	50.0%	81.2%	61.0%
Total		100.0%	100.0%	100.0%

p-value 0.042.

Table 9
Dependence analysis between Impacts of inter-firm collaboration and geographical area.

	Geographical area						*P-value*
	Naples			Sorrento peninsula			
	Low	Med	High	Low	Med	High	
Impact on tourist local promotion	0.0%	75.9%	24.1%	0.0%	90.9%	9.1%	0.108
Impact on hospitality and services provided to tourists	0.0%	63.3%	36.7%	0.0%	71.9%	28.1%	0.424
Impact on firm's management	13.3%	56.7%	30.0%	6.2%	68.8%	25.0%	0.476
Economic/Political impact on other Institutional actors	46.7%	50.0%	3.3%	40.6%	51.6%	4.8%	0.778
Professional competences of members of the network	6.7%	66.7%	26.7%	12.5%	78.1%	9.4%	0.166
Appropriateness of individual behaviors of the members of the network	6.7%	80.0%	13.3%	12.5%	78.1%	9.4%	0.668

Table 10
Dependence analysis between level of cooperation and geographical area.

		Geographical area		Total
		Naples	Sorrento peninsula	
Level of cooperation in local development process	Not acceptable	33.3%	12.5%	22.6%
	More than acceptable	66.7%	87.5%	77.4%
Total		100.0%	100.0%	100.0%

p-value 0.050.

With respect to the opinion of the interviewed firms on the impact of inter-firm collaboration, there is, on the whole, a common view (though more strongly held in Sorrento, apart from the last factor) that these activities positively impact on local tourist promotion, on the development of specific offers for tourists, on management, and on the development of specific competences. In the case of Sorrento, however, decision makers appear more circumspect with regard to the professional competences and the individual behaviors of members of the network.

This view is confirmed by the overall idea that firms have about cooperation at a local level that, in both cases, is more than acceptable. However, while in the area of Naples one third of the decision makers declare themselves not to be satisfied with the process, in Sorrento the number of unsatisfied firms does not reach 13% (Table 10). In other studies in the literature on destination management (Komppula, 2014; Marcoz et al., 2014) importance of the governance mechanisms to drive local actors is shown to be a defined process of coordination and interaction, and that definition may be missing in the Italian example.

Nonetheless, the level of inter-firm collaboration is, in both cases, very high among local private firms (Table 11) as well as between these firms and local Institutions (Table 12), even if the interviewed decision makers appear much more committed to interacting with other private companies than with public Institutions.

In order to measure of the level of coopetition in these two areas, we proceeded to analyze the level of collaboration, the level of competition and then to measure the level of correlation between these two variables.

Considering the level of collaboration, in both cases, the collaboration composite index, calculated as previously explained, is quite high, being 31.5% in Naples area and 42.6% in Sorrento (Table 13 and Fig. 1a).

Considering the first research hypothesis – Is there a different degree of cooperation between the firms in the two selected areas? Why? – the results confirm that even if in both areas there is a positive attitude towards collaboration, this is higher in the case of Sorrento, where firms also seem to be more accustomed to cooperate in a more "technical" and specific way. The previous tables, in fact, show the different content of inter-firm collaboration in the two tourist destinations. They show a higher level of operationalization in Sorrento: this is in not only due to the fact that the sample we included firms of the tourist chain (because in that case the results would have been similar in the two areas) but it is also due to how they developed, as to activities and propositions. This makes the difference between the two destinations.

6.2. Subset CP: questions about competition

Looking at the main categories of investments, however, it also appears that firms in Sorrento are much more competitive, with a high intensity of investments in innovation, in service quality, customer satisfaction and in promotion (Table 14).

Sorrento also appears more dynamic in terms of the number of investments (Table 15).

As it can be noticed from Table 16, firms in Sorrento seem to be more competitive, since they mainly aim at service quality and customization, competitive prices but also innovation and partnerships more with foreign partners than with local organizations. This shows that they are maybe more competitive at a local level. In case of Naples, the majority of the interviewed asserted that service quality is by far the most necessary attribute and that they need to be competitive in terms of prices. However, the data revealed that they mostly behave as price and market takers rather than proactive actors, while companies in Sorrento adopt more aggressive and proactive strategies.

Other studies (eg. Guo et al., 2014) analyze the issue of competition exclusively based on price, considering the critical relationships even between supplier and client (hotels and Otas). Here we take into account other marketing aspects, like service customization, that appears to be even more important than price, and strategic factors, like innovation and partnerships with firms belonging to other industries or foreign partners. Therefore this study is more in line with other contributions (Wang, Krakover, 2008), which underline the possibility of cooperation in specific fields between highly competing firms.

This result is also confirmed with reference to the number of competitive factors decision makers state they possess: in Naples no more than three, while the number increases in Sorrent (Table 17).

Moreover, firms in Sorrento appear to be very competitive both at a local, national and international level, while in Naples there is locally a lower state of competition and decision makers traditionally feel they compete more with other destinations in Italy rather than internationally (Table 18). Therefore, we can assume that entrepreneurs and managers in Sorrento operate in a wider competitive environment. From the research it also emerged that some foreign major tour operators are investing directly, through significant shares acquisitions, on incoming activities in Sorrento.[5]

[5] This is the case of TUI group (world leader), which owns 50% of Acampora travel, one of the main and oldest incoming local travel agents.

Table 11
Type of relationships with local tourist firms per geographical area.

		Geographical area		Total
		Naples	Sorrento peninsula	
Type of relationships with local tourist firms	Non collaborative	3.3%	3.1%	3.2%
	Collaborative	96.7%	96.9%	96.8%
Total		100.0%	100.0%	100.0%

P-value 0.963.

Table 12
Type of relationships with local Institutions per geographical area.

		Geographical area		Total
		Naples	Sorrento peninsula	
Type of relationships with local institutions	Non collaborative	3.3%	0.0%	1.6%
	Indifferent	26.7%	25.0%	25.8%
	Collaborative	70.0%	75.0%	72.6%
Total		100.0%	100.0%	100.0%

P-value 0.566.

Table 13
Intensity collaboration index (ICL) distribution by geographical area.

		Geographical area	
		Naples	Sorrento peninsula
ICL (%)	Mean	31.5	42.6
	Standard error	3.2	2.7
	95% Confidence interval	[24.9–38.1]	[37.2–48.1]
	Min – Max	[0.0–64.0]	[8.0–86.0]
	P-value (mean t two samples test)	0.010	

This is confirmed by the competition index, which is significantly higher in Sorrento (75.7%) than in Naples (51.7%), not only with respect to the mean but also looking at the 95% confidence interval (Table 19 and Fig. 4).

Even if in both areas there is a quite intense competition, Sorrento Peninsula firms show a higher competition level, operating in a more international context and with a more complex set of relationships, especially with international partners.

The results therefore seem to indicate that in the case of Sorrento, even if competition is higher, it is at a degree that favors firms' creativity and entrepreneurial commitment, thus avoiding the risk of excessive competition within the destination. However, competition still holds a very individual configuration, not only within each area but also making the two destinations less collaborative on the whole, as shown in previous studies of other destinations, e.g. in Poland (Zemla, 2014).

7. Analysis of "coopetition" and discussion

In Table 20 we show the linear correlation between the collaboration and the competition indexes in order to arrive at a comparable result about the overall level of coopetition. As shown in the Table 19, there is a significant positive correlation between the two variables.

In Fig. 5, we present the two average points, namely barycenters

Table 14
Dependence analysis between individual investments and geographical area.

		Geographical area		Total
		Naples	Sorrento peninsula	
Individual investment in the latest three years	Innovation	28.9%	94.3%	57.5%
	Service quality	55.6%	97.1%	73.8%
	Customer Satisfaction	17.8%	57.1%	35.0%
	Promotion	64.4%	74.3%	68.8%

P-value 0.002.
Note that the percentages do not add up to 100 because the question is multiple response.

Table 15
Dependence analysis between numbers of investments and geographical area.

		Geographical area		Total
		Naples	Sorrento peninsula	
Number of investments in previous categories	**0**	2.2%	0.0%	1.2%
	1	33.3%	0.2%	18.8%
	2	60.0%	20.0%	42.4%
	3	4.4%	37.1%	18.8%
	4	0.0%	42.9%	18.8%
Total		100.0%	100.0%	100.0%

P-value <0.001.

Table 16
Dependence analysis between competitive factors and geographical area.

		Geographical area		Total
		Naples	Sorrento peninsula	
What are the main competitive factors	Price	75.6%	68.6%	72.5%
	Service quality and customization	95.6%	94.3%	95.0%
	Innovation	22.2%	54.3%	36.3%
	Partnerships with local firms	68.9%	40.0%	56.3%
	Partnerships with foreign firms	24.4%	77.1%	47.5%

P-value <0.001.
Note that the percentages do not add up to 100 because the question is multiple response.

Table 17
Dependence analysis between numbers of competitive factors and geographical area.

		Geographical area		Total
		Naples	Sorrento peninsula	
Number of competitive factors	1	2.2%	2.9%	2.5%
	2	28.9%	8.6%	20.0%
	3	53.3%	48.6%	51.2%
	4	11.1%	31.4%	20.0%
	5	4.4%	8.6%	6.2%
Total		100.0%	100.0%	100.0%

P-value 0.049.

Table 18
Dependence analysis between main competitors location and geographical area.

		Geographical area		Total
		Naples	Sorrento peninsula	
Where are your main competitors located?	Campania	40.0%	91.4%	62.5%
	Italy	84.4%	85.7%	85.0%
	Abroad	42.2%	74.3%	56.3%

P-value 0.041.
Note that the percentages do not add up to 100 because the question is multiple response.

Table 19
Intensity competition index (ICP), distribution by geographical area.

		Geographical area	
		Naples	Sorrento peninsula
ICP (%)	Mean	51.7	75.8
	Standard error	1.8	1.9
	95% confidence interval	[48.0–55.3]	[71.9–79.5]
	Min – Max	[33.0–92.0]	[50.0–100.0]
	P-value (mean t two samples test)	<0.001	

(Cs and Cn), that show how in Sorrento the levels of cooperation and competition (that together represent coopetition) are significantly higher than in Naples area.

Table 21 and Fig. 6 show the overall index of coopetition (ICO) in the two areas. They both confirm the higher level of the ICO in Sorrento (55.4) compared to that of Naples area(36.9) with p-value < 0.001.

8. Discussion

The paper is a significant advance both in theory and in practice. Theoretically, it adds content to the main contributions on the issue of coopetition, with specific reference to the role of this strategy in gaining sustainable competitive advantage, not only at the firm level but also at the destination level as a whole. Additionally, it applies the concept to the unit of analysis of the inter-firm system. The paper confirms the possibility of applying the typical concepts of game theory (the prisoner's dilemma) to the issue of strategy, presented in an innovative way. Since, in fact, most of studies underline the situations of quite large firms that can compete in some businesses and collaborate in others, in this case the focus is on business networks mainly made of small and medium enterprises and not necessarily with the presence of focal firms. Thus the paper adds value to the theory on the topic.

As regard to the methodology, the proposed indeces are statistically significant and show it is possible to compare different geographical errors.

The results show that in the area where there is a higher level of competition, cooperation is inducive to higher levels of performance, compared with situations of a higher collaborative perspective with a lower level of competition.

The results show that in smaller tourist destinations there is a higher willingness to cooperative relationships between actors of the tourism industry since in Sorrento firms demonstrate active relationships with a major number of local operators, but in the case of Naples there is a higher degree of trust in the relationships. It means that, in the coopetition logic, cooperation has a significant role in the creation of relationships, with particular reference to the temporal dimension, since there is a high number of ongoing relationships. The factor that mainly influences the decision for firms to cooperate can be linked to the mutual advantages they gain through these activities. According to the “win–win” approach, firms gaining performance improvements can also produce economic benefits for other actors involved in the same activities and vice-versa.

It is nevertheless necessary to underline that in this sample different tourist firms are represented and therefore relationships are not just horizontal but also vertical. In such cases, the propensity to cooperation is higher than other situations of direct competition, that are issues of successive studies. The favorable finding about collaboration is in line with previous studies that consider the level of cooperation between specific firms in tourism sectors (Guo et al., 2014). On the other hand, many studies that examine the level of cooperation at a horizontal level (e.g. Casanueva et al., 2013, 2014) refer to a specific sub-sector of tourism industry, namely airline industry, where firms necessarily have to collaborate in order to survive. In this case, we have a true coopetitive approach, in which we take into account different actors in the business chain that can be either full competitors or even complements. This allows us to have a wider view of the issue, in a context comprising heterogeneous companies across the whole chain of distribution.

Looking at the two areas, there is a significant difference with reference to the contents of the relationships: for Naples' firms, a consistent number of relationships occur in the case of tourism promotional activities at a local level, while for Sorrento's actors, there are collaborations for incoming and booking management activities.

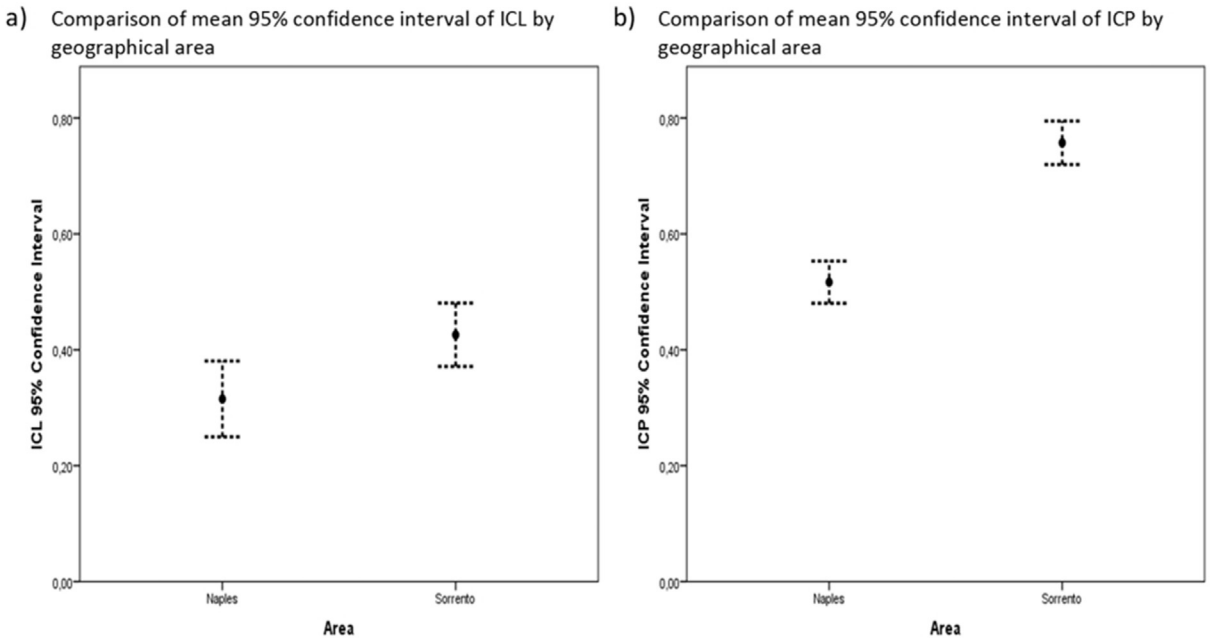

Fig. 4. Comparison of mean 95% confidence interval of Intensity indexes by geographical area.

Table 20
Pearson correlation between ICL and ICP distribution.

	Pearson correlation	P-value
ICL – ICP	0.256	0.020

In most cases, cooperation is considered of fundamental importance for the local development process, especially for Sorrento's firms, even if in Sorrento Peninsula there is a higher level of competition between firms when compared with Naples. In the area where the two factors – competition and cooperation – are higher, overall performance shows better results. As for the relationships with local authority, it seems that there is a high level of collaboration in both areas.

It is therefore clear that the most competitive tourism destination – Sorrento Peninsula – has a higher level of coopetition and therefore we can conclude that higher levels of coopetition can make a tourist destination more competitive.

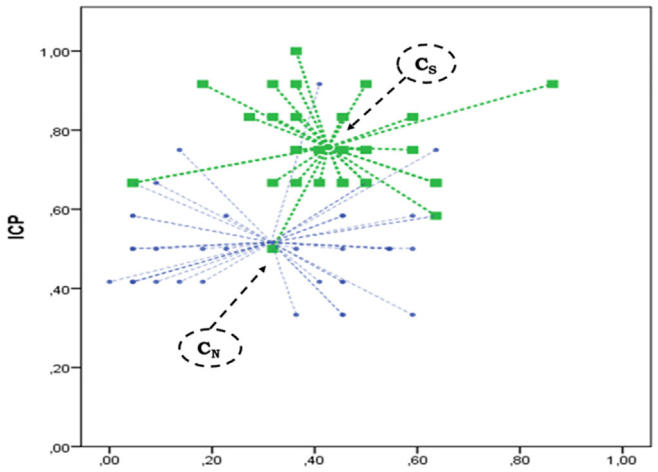

Fig. 5. Scatterplot between ICL and ICP distributions by geographical area.

This result is also extremely interesting in the light of previous studies on these areas. Della Corte and Aria (2014) show the relative propensity to cooperation in the two destinations, also pointing out there are not present specific recognized pivotal actors (like DMOs) in these instance. *These make our study much more interesting, because it analyses coopetition in contexts where focal firms are not present and, as underlined in the theoretical section of this article, there are systems of different levels of organization and more or less structured configurations.*

9. Conclusions and hints for future researches

The idea of this paper starts from the analysis of gaps in the existing literature. There are only a few attempts to evaluate the relationship between coopetition strategies and firm's performance mostly concentrated on dual relationships rather than contexts of networks/systems of firms in tourist destinations. In particular, the issue, which is getting growing attention in strategic management studies, is still unexplored in the tourism industry, in spite of the frequent coopetitive interactions that characterize the firms of the sector, especially small and medium enterprises. And yet, as shown in the discussion section, there is an interesting relationship between coopetitive strategies and performance also at local and aggregate levels (systems/networks).

Empirical testing has revealed to be difficult, because of the necessity of finding measures that are not only financial but also marketing-based. This is also the reason why we decided to undertake a direct survey, interviewing decision makers of the more

Table 21
Composite coopetition index (ICO) distribution by geographical area.

		Geographical area	
		Naples	Sorrento peninsula
ICO (%)	Mean	36.9	55.4
	Standard error	2.6	2.2
	95% Confidence interval	[31.6–42.1]	[50.9–59.8]
	Min – Max	[0.0–69.0]	[17.0–89.0]
	P-value (mean t two samples test)	<0.001	

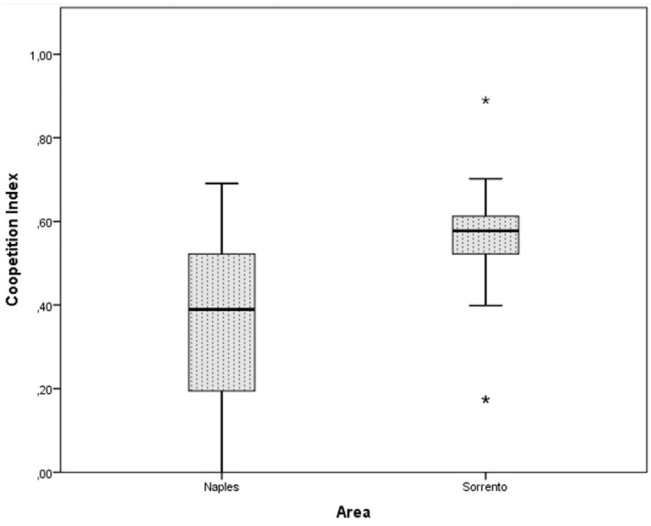

Fig. 6. Boxplot distribution of Coopetition index by geographical area.

important firms in the two areas. This approach gives access to original data, to analyze and interpret managers' and entrepreneurs' points of view, thus linking research and theory to the real industrial world. Decision makers found themselves so involved in the analysis, that they continue to contact us asking for the results.

A relevant conclusion is that the two areas appear as different both in their structure and in their coopetitive dynamics, in spite of being in the same region and being so close to each other. However, this also shows that geographical contiguity does not encourage local competitors to cooperate with the same intensity. Such a view is in contrast with other studies (Mariani & Kylänen, 2014) that assert that co-located companies cooperate more easily and that even unintentional processes of cooperation can start. This could be true, but in many contexts, as in this research, collaboration appears still difficult to implement. Therefore, the conclusion is that even in closed areas with individual territorial specificities (as in many Italian and European tourist destinations) there can be significant cultural differences in entrepreneurship and networking, owing to the specific history of the place, of the people that started and managed businesses over time, of the relationships that have been built during the decades (RBT's social complexity), as well as of the overall set of decision making processes that characterize the nexus of relationships in destination management. Therefore, this strong link to local identity, both in its tangible (local resources) and intangible (culture, knowledge, folklore, customs) factors, makes FOR considerable differences between destinations located in the same Region. If this, on one side, is an expression of the variety offered to the customer of tourism, it also makes it difficult to apply a coopetition logic in inter-destination relationships rather than just that of competition. Mariani et al. (2014) point out that today destinations themselves are called to adopt more coopetitive strategies, exactly as firms do, even if the level is more complex, since they require the whole system of local actors (both private and public) to cooperate. In this direction, it has to be conceived as a dynamic process in which competition, cooperation and the relative weight of each destination in the relationship can change at any time, being connected to the specific strategic choices.

Of course this study has several limits. First, despite the adopted quantitative analysis of coopetition in strategic management in tourism, it does not contemplate the changes of the game but allows taking a picture of the actual situation. Additionally, the empirical test is conducted only on one industry that has specific features. Therefore, it should be extended on other industries to verify the generalizability of the results. Secondly, the system's performance is valued on the area as a whole, taking into account typical outcomes of the tourism industry (increase in incoming flows, increase in overnights per bed, increase in occupancy rate for each category, tourist gross local product) and not on the single firms' performance. In this case, this is why it was more important for us to choose two closed but different tourist destinations, with different coopetitive strategies, in order to verify the impact of such dynamics on the destination as a whole. Besides, as underlined in the discussion section, the collaborative factor is influenced by the fact that the relationships are not just horizontal but also vertical, and this makes a firms' propensity to cooperate higher than with reference to its direct competitors. In our methodology, despite the *two sides of the coin* (theoretical and empirical) the aim of getting to the perceptional nature of the complex "coopetition" construct, it is always based on individual decision maker's perceptions and opinions, and thus it is not an objective external analysis of the phenomenon. Results are in fact influenced by the respondents perceptions, views and personal constructs. It is in line with previous works (Della Corte & Aria, 2014), that show how the propensity to cooperation depends on the decision makers' personal attitudes, on their previous experiences and on their level of awareness of the chances offered by inter-firm collaboration.

It is suggested other aspects could be extremely important. What is the relationship between individual performance and network/system performance; what are the main social, environmental and ethical impacts of coopetition strategies. These questions, however, can be developed in further research.

Another interesting point are the strategies that can occur before and after the birth of coopetition relationships. These include, as possible consequences, increase in popularity (brand), widespread recognition and increase in commercial relationships, to cite just some. These kinds of relationships also involve a certain number of ethical and environmental implications: impact on the surrounding environment, on the morality of the commercial actions of entrepreneurs and respect for all stakeholders.

There are, however, still open issues. A first criticality is that of coopetition dynamics in risky unbalanced relationships (Bonel & Rocco, 2007). There are also difficulties in the evaluation of factors which make coopetition a first choice strategy, or more likely to appear in specific settings. Besides, it should be important to recognize what are the best governance forms and leadership qualities in managing coopetition. Moreover, it could be interesting to analyse how coopetition can evolve over time in a way that is difficult to imitate, in sustainable advantage terms. Finally, another gap that remains unresolved in literature concerns the relationship's duration: does relationship deepen if the effectiveness of coopetition changes according to relationship continuity (short or long term)? Hence there remain several possibilities for future research in the area of coopetition in tourist destinations.

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