Entrepreneurial networks and supply communities in the Italian e-tourism

Dimitrios Buhalis and Elisa Molinaroli

Centre for eTourism Research (CeTR), School of Management, University of Surrey, Guildford, GU2 7XH, UK

Information technology and tourism are both driven by a consistent change in structures, players, and products in order to adapt to fast changing consumer behavior as well as adaptation of ICT tools. The key objective of this study is to explore to what extent the domestic, inbound, and outbound Italian tourism sector is ready to adopt a common and more flexible technological infrastructure that can facilitate the development of entrepreneurial networks at a local level. Destinations can increasingly be seen as local “clusters” of tourism businesses, consisting mainly of small and medium-sized tourism enterprises (SMTEs). Through new Web technology tools and interoperability SMTEs can develop entrepreneurial networks and supply to provide a “complete” tourism experience by delivering complementary products. Results of extensive Web research, email questionnaires, and in-depth interviews in Italy suggest that both SMTEs and larger enterprises have so far developed only basic e-commerce activities. As far as incoming tourism is concerned, destinations, such as Italy, that lack a comprehensive destination management system (DMS) need to maintain their attractiveness by interconnecting all tourism suppliers. Through entrepreneurial networks they can empower e-commerce and e-business activities to assist Italian tourism enterprises to interact with their clientele, offer value-added products, and assist travelers arriving at the destination.

Entrepreneurial networks
Small and medium-sized tourism enterprises (SMTEs)
Destination management organizations
Destination management systems (DMS)
Supply communities

Introduction

Advances in technology and increased interactivity and connectivity among tourism enterprises can offer a viable alternative to destination management systems (DMSs) to interconnect consumers with suppliers. Equally, eTourism tools can support the domestic tourism value chain. First this article explores how the Internet and new technological tools are contributing to distribution of tour-
ism information and the sales of the Italian tourism product online. Second, it explores how the Internet is changing the structure of the tourism industry in Italy by enabling all suppliers to participate in the emerging e-marketplace. It also examines how the e-marketplace is developing, and to what extent individual organizations, which include small and medium-sized tourism enterprises (SMTEs) and larger organizations, are able to aggregate their products successfully in the online market.

This study also aims to discuss the main reasons that have so far prevented the adoption of a DMS in the Italian tourism market. The study explores how advances in Web technology can transform potential weaknesses of the lack of DMSs into opportunities. Finally, the article also explores the concept of networked organizations, supply communities, and entrepreneurial networks in the tourism sector as a workable alternative to DMSs.

Entrepreneurial Networks in Tourism

Tourism destinations and their range of attractions and activities are likely to define the core tourism product, as well as the focus of tourists' motivation and experiences (Buhalis & Laws, 2001). This requires emphasizing local differences and sources of unique value (Jackson & Murphy, 2002). The fragmented nature of the tourism industry means that numerous players, SMTEs, and other services providers need to develop seamless networks of collaboration for the development and delivery of both the incoming and domestic tourism products. Increasingly, the tourist service economy depends on the capacity of companies to collaborate and to adapt to market changes as well as to provide personalized information and services through networks (Buhalis, 2003; CeltTa, 2001). By moving towards “complementarity” and interaction, each activity can gain from the other. Destinations will therefore be able to increase value by empowering revenue increases, constant innovation, and maintenance of their attractiveness (Amit & Zott, 2001).

Entrepreneurial networks have been defined as networks of economic “actors” and activities aimed at creating new resources or combining existing resources in new ways to develop new products and service new customers (Hitt, Ireland, Camp, & Sexton, 2001). In the tourism industry, intraindustry horizontal networks can be developed among clusters of firms that are more alike than others (i.e., similarity of products and services) (Gulati, Nohria, & Zaheer, 2000). For example, small hotels or restaurants may collaborate (and compete) at the local level and undertake some common activities or business functions. More importantly, vertical networks of complementary services, such as hospitality with transportation and leisure organizations, are critical for the creation and delivery of the integrated tourism product. The coordination of all these activities and services is of paramount importance for the performance of the destination as a whole and for customer satisfaction. Franchising, consortia, and codesharing of airlines are already well-established examples of cooperation among several actors of the tourism value chain. The distribution channel of tourism also illustrates a variety of vertical networks of tourism delivery (Buhalis & Laws, 2001). Within the accommodation sector, for example, entrepreneurial networks could tie together hotels, bed and breakfast units, and campsites, which would constitute a destination supply community. This can facilitate e-commerce throughout the network and increase the quality of services, time to market, market enlargement through multichannel distribution, product customization, and cost reduction (European Commission, DG Enterprise, 2001).

Technology Tools for Tourism Entrepreneurial Networks

The Internet is changing the structure of the tourism industry, enabling all players to participate in the emerging e-marketplace. This underlines the far-reaching implications of the Internet and new e-tools on the structure and management of tourism enterprises (Buhalis, 2003). The technological changes in the sector not only condition the evolution of customer behavior and demands, but also generate important changes in the production and planning strategies of tourism enterprises and destinations (Horrillo, 2001).

Tourist experiences happen in relatively small geographical areas or destination “clusters.” Each microdestination area takes advantage of natural and manmade attractions and facilities as well as local supply communities support tourist experiences to satisfy customer needs and create value. It is evi-
dent that the needs of the customer require an entire performance bundle, which consists of the services supplied by many different local industry operators, mainly SMTEs (Osti & Pechlaner, 2001). In order for these enterprises to coordinate their offering, they need to develop entrepreneurial networks supported by an information communication technologies (ICT) infrastructure (or infostructure).

Destination regions can enhance their competitiveness by extending ICT tools to integrate electronic intermediaries, destination marketing organizations (DMOs), end-consumers, and tourism suppliers. ICT tools can assist them to achieve speed, globalization, differentiation, personalization, enhanced products, market reach, innovation, and collaboration across the entire tourism value chain at the destination (Barnes & Hunt, 2001). Therefore, ICT-empowered coordination of entrepreneurial networks in tourism destinations can increase their competitiveness. An “organic” technological infostructure that enables customers to link directly to suppliers and increase collaboration among providers of tourism products and services could be instrumental for the success of tourism destinations and organizations of the future. Typically, these systems have taken the form of DMSs and have been implemented widely in several destinations (Buhalis, 1997; Buhalis & Spada, 2000; O’Connor, 2002). However, loosely defined networks that bring together complementary operators can be equally valuable.

Italy, as a country, has not hitherto implemented a DMS and lacks a common technological infrastructure able to bridge tourism supply and demand at the national destination level. Decentralization, lack of a strong decision-making power at a central level, and fragmentation of the tourism industry constitute the main barriers to the adoption of such systems in Italy (Antonioli & Baggio, 2002). These factors are driving the trend towards generic platforms, where supply communities can “plug” and “play,” gaining access to the global marketplace based on open standards, independent from applications (Federated European Tourism Information Service Harmonization [F.E.T.I.S.H.], 2002). This encourages “distributed networks” and a more fluid, agile, and innovative form of collaborative commerce empowered and enabled by new collaborative Web tools and technologies, such as interoperability, standards, and XML (Pollock, 2001). Although these developments offer a near anarchic representation of tourism destinations, they are often more viable and realistic than structured and robust DMSs.

The objectives of this research are to explore the level of eTourism developments in Italy and to examine whether ICT-empowered entrepreneurial networks offer a realistic and viable alternative to DMSs applied elsewhere.

Methodology

This exploratory study is divided into two sections. The aim of the first phase of the research was to examine the Italian tourism sector, both offline and online, by identifying all the major players that have a Web presence and are involved with domestic and inbound tourism. The focus was on how potential tourists can use the Internet to look for information on the destination products and services. The reservation function of individual suppliers, both SMTEs and larger enterprises, was also examined. This is of particular interest for the Italian tourism competitiveness, because there is no DMS or an infostructure that supports tourism enterprises. Extensive Web research identified a wide range of providers of tourism products and services at the destination who had developed e-commerce interacting with end-consumers. These were then clustered according to the 6As model, which identifies the six most important categories in the tourism value chain: Attractions, Activities, Accessibility, Amenities, Ancillary Services, and Available Services (Buhalis, 1997). The research aimed to map the representation of Italian eTourism and to demonstrate the linkages between different sectors of the industry.

Further research was conducted through email-structured questionnaires to 185 SMTEs, who had developed basic e-commerce activities. The 185 targeted SMTEs belonged to all different sectors of the tourism industry and provided a fairly representative sample. This aimed to examine whether the technology infrastructure available to SMTEs belonging to the main sectors of the tourism value chain were effective in reaching the end-consumer through collaboration with other partners/operators.

Only 12 out of the 185 SMTEs targeted responded to the emailed questionnaire, despite two reminders, giving an overall response rate of 6.5%. Two
thirds of respondents (9 or 75%) belonged to the accommodation sector. This was not only because the sample size was greater than those of other categories, but also because of a higher level of IT adoption, because trade organizations in Italy have launched initiatives to stimulate the use of email and Internet within the accommodation sector (Trademark Italia, 2002). However, one third of the respondents (3 or 25%) belonged to other sectors, namely activities (2) and accessibility (1). Although the response rate does not allow the drawing of generalizations and final conclusions, there were several important inferences that demonstrate the significance of entrepreneurial networks and the critical importance of the infostructure to the competitiveness of the Italian tourism industry.

In the second phase, in-depth qualitative interviews were carried out in Italy with members of the e-commerce and e-business teams of five large tourism companies, namely cruise company Costa Crociere, the national airline Alitalia, and tourism intermediaries Welcome Travel group, eDreams, and Turisanda. These organizations were selected due to their eCommerce innovation. They provided valuable insight into the Italian eTourism developments and predictions for the future of the eMarketplace for both incoming and outgoing tourism. Interviews also explored to what extent tourism enterprises are ready to adopt a more open and integrated infostructure. This would facilitate the development of entrepreneurial networks among supply communities at a local level and would increase cooperation across all stakeholders. Electronically facilitated entrepreneurial networks can be used either as an alternative to DMSs or as supporting mechanisms. Thus, interviews discussed the facilitation of e-commerce and e-business activities among tourism suppliers, customers, destination organizations, and all potential partners in the context of the inbound, domestic, and outbound Italian tourism value chain. They also explored the future of DMSs in Italy.

However, due to time and financial constraints as well as limited response by the Italian tourism industry, this research cannot provide sufficient evidence for wide generalization and a representation sample of all tourism enterprises in Italy. Limitations include the fact that the mail questionnaire is dominated by hospitality organizations while the number of in-depth interviews had to be limited. Nevertheless, the article provides significant findings and a solid basis for the exploitation of these primarily qualitative results further at a later stage.

**Findings**

This section provides the results of the analysis of data collected through the entire range of research instruments, including Web research, email questionnaires, and interviews. Results from the Web research suggest that the Italian online travel sector is very active and the key players come from a wide range of sectors, both inside and outside the travel industry. The main stakeholders in the Italian tourism sector have achieved an online presence and there are linkages among them. Domestic and international tourists, researching travel information on the Internet or trying to make a reservation online, are able to reach a wide range of suppliers and SMTEs at the destination. The research demonstrated that the Italian tourism sector is less centralized and integrated than most DMS-based destinations. It is dominated by a vast number of large, small, and medium-sized enterprises, most of whom have already developed an online presence. Figure 1 maps the representation of Italy online. All key areas identified in Figure 1 are based on links provided in the Web sites of the players examined. Figure 1 demonstrates that consumers normally go through travel portals or electronic representations of existing intermediaries before reaching the resources and service providers of the Italian tourism industry. In addition, the individual service providers gradually develop their online presence and establish links to other complementary services and intermediaries to ensure that they extend their own value chains and serve all requirements of their customers. A number of regional and municipality portals also emerge to provide listings of local service providers and facilitate the intermediation process. The map demonstrates that the linkages can be overwhelming for the average consumer and are not necessarily organized in a rational fashion. However, they ensure that consumers can access products and services online to build their own itineraries and maximize the personal value from the destination. It is evident that the internetworking between different players and suppliers is remarkable and demonstrates the level of integration and collaboration required at the
Figure 1. Stakeholders in the Italian online tourism sector.
distribution level for the delivery of an integrated tourism experience.

However, due to the low propensity of Italians to buy online, both larger enterprises and SMTEs have developed only basic information-dominated e-commerce activities and still rely heavily on intermediaries to reach their end-consumers. The role of new e-intermediaries is becoming important for Italian tourism. There are several:

- generic portals, that offer tourism products via the Web by exploiting their commercial and brand image potential;
- travel portals, specializing in tourism products;
- regional and local tourist portals supported by both the public and the private sectors.

Table 1 demonstrates some of these key players that have developed portals offering Italian tourism products.

It is evident, therefore, that the Internet represents a powerful channel for the promotion and provision of information for both larger enterprises and SMTEs in the Italian e-marketplace (Antonioli & Baggio, 2002). Findings from the questionnaires suggest that SMTEs are visible on the Internet and regularly interact with consumers. The Web research demonstrated that the accommodation sector is particularly active in e-commerce activities as it has developed portals that give visibility to different types of products and services in most main tourist destinations. However, SMTEs are still making very limited use of Internet technology to increase the level of cooperation with other partners/operators. There is a lack of interorganizational links, thus preventing increased cooperation among other operators. The telephone is still the main means of communication, although the use of email is growing. Email is used only by 33% of the respondents as a tool for communicating with other suppliers and operators (e.g., restaurants, car rentals, and intermediaries). Table 2 demonstrates the level of usage of several communication mechanisms by the organizations surveyed. This suggests that small operators want to provide a better service to customers and gradually adopt ICT tools. However, extranets and intranets are underutilized in Italy. These results seem to confirm research carried out by ISTAT in 2001 on the use of ICTs among small and medium enterprises of all sectors.

The tourism suppliers that use the Internet aim to link their organization with as many distribution mechanisms as possible. About 64% aim to rank highly in generic search engines, such as Altavista and Yahoo!; 24% try to raise their positioning with specialized travel portals while 11% target local and regional portals as well as links with other local providers. A number of additional offline distribution channels are also used, including travel agencies and tour operators.

Interviews demonstrated that the Internet and Web-based tools have penetrated all aspects of the business process of large Italian enterprises. It is evident that large enterprises have realized that data interoperability exchange is a fundamental requirement to allow faster and more effective market and management dynamics (Harmonise, 2002). Larger enterprises have the technology infrastructure in place and are working towards the development of common platforms, mainly for B2B activities. From interviews with experts in the field, it emerged that travel intermediaries seek to increase collaboration with smaller operators at the destination in order to enlarge and expand their offerings. This will enable them to offer more customized products and assist travelers arriving at the destination or those wishing to experience a particular type of niche tourism.

### Table 1

**Italian Travel Portals**

<table>
<thead>
<tr>
<th>Portal</th>
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<tbody>
<tr>
<td><a href="http://www.discoveritalia.it">www.discoveritalia.it</a></td>
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<tr>
<td><a href="http://www.ilviaggio.it">www.ilviaggio.it</a></td>
</tr>
<tr>
<td><a href="http://www.italytraveller.com">www.italytraveller.com</a></td>
</tr>
<tr>
<td><a href="http://www.turista.it">www.turista.it</a></td>
</tr>
<tr>
<td><a href="http://www.viaggiare.net">www.viaggiare.net</a></td>
</tr>
<tr>
<td><a href="http://www.italynetguide.com">www.italynetguide.com</a></td>
</tr>
<tr>
<td><a href="http://www.ciaociaoitaly.com">www.ciaociaoitaly.com</a></td>
</tr>
<tr>
<td><a href="http://www.giroscopio.com">www.giroscopio.com</a></td>
</tr>
</tbody>
</table>

### Table 2

**Communications Mechanisms Across Organizations**

<table>
<thead>
<tr>
<th>Mechanism</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Telephone</td>
<td>90.0%</td>
</tr>
<tr>
<td>Fax</td>
<td>41.6%</td>
</tr>
<tr>
<td>Email</td>
<td>33.3%</td>
</tr>
<tr>
<td>Web sites</td>
<td>33.3%</td>
</tr>
<tr>
<td>Extranet</td>
<td>8.3%</td>
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</tbody>
</table>
Many tourism organizations in Italy constantly observe the changing trends in technology. According to the various operators, technologies can undoubtedly offer a quicker and more effective communication tool between consumers and suppliers as well as with agencies. Each sector is currently working towards the integration and standardization of information, which will interact with any device. Alitalia, for example, is very proactive towards new wireless technologies, as it believes that UMTS, Wifi, and wireless solutions will assist targeting business travelers. Alitalia has recently completed a technological platform that supports multichannel access and can be accessed via the Internet, mobile phones, or other devices. It is evident, however, that operators are very skeptical about how soon Italian travelers, in particular, will make use of new wireless devices such as mobile phone, PDA, and digital television to interact with tourism products and purchase products and services. This demonstrates that although most services target international incoming travelers, technological developments are paced according to the IT adaptation at the national level.

Analysis

Italy lacks a common infrastructure, namely a DMS, able to bridge tourism supply and demand. This article demonstrates that the creation of “entrepreneurial networks” among tourism enterprises or supply communities at a local level can provide a fundamental instrument for the promotion of Italian tourism. Entrepreneurial networks can develop informal partnerships based on a destination-focused infostructure. This can support the Italian tourism sector to disseminate important information; to attain more visibility on both domestic and especially international markets; link the local product to the real and potential demand; and to improve the management of all activities in general (Jacucci, La Micela, & Roberti, 2002).

Little research has so far been conducted on the Italian tourism sector to try to identify a viable solution to DMS implementation to coordinate and manage the fragmented supply at the destination and to improve communication and collaboration in tourism to create value for consumers.

Results from the Web research, questionnaires, and interviews indicate that in the Italian travel market, representatives of all business communities involved in the sector value chain are already represented to a certain extent on the Internet. However, very few larger enterprises and the majority of SMTEs participate in sophisticated and highly interactive e-commerce activities. Real-time and online bookings are still in their infancy and are used by a very small proportion of tourism suppliers. This is mainly due to the nature of domestic travelers, who account for most of the tourism activity in Italy. The low propensity of Italians to buying online is mainly due to cultural rather than technological factors, as well as to the high concentration of travel agencies across the country. As one of the interviewees claimed, “Italians purchase products by talking face to face. ICT will take time to see eCommerce levels comparable with Northern Europe.”

In addition, another interviewee revealed that although they are capable technologically to support fully interactive eCommerce applications they have chosen not to do that, in order not to damage their relationships with existing offline intermediaries. The strong dependence of tourism firms on the offline channels for booking confirmations and payments seems to serve mainly domestic tourists. However, it represents a major barrier to potential incoming tourists trying to reserve tourist products over the Internet. For the majority of SMTEs, the low interactivity with customers online means fewer opportunities to attract incoming tourists, who may wish to prebook a series of services and activities online directly with suppliers at the destination. The majority of foreign arrivals in Italy originate from the US, Germany, UK, and France, and these countries already demonstrate a high Internet usage and developed e-commerce activities. Therefore, unless Italian organizations have comprehensive eCommerce functionality online, they may jeopardize their bookability and competitiveness as consumers grow intolerant against organizations that fail to transact online. Also, the self-packaging segment in Italy has increased from 62% in 1998 to 64.3% in 2002 along with the growth of domestic short breaks and holidays (Trademark Italia, 2002).

International experience demonstrates that there is an opportunity for providers of tourism products and services to transform even domestic short breaks into “complete travel experiences” by supporting collaboration among suppliers of complementary
services. This can develop a “supply community” or a network of interdependent and complementary suppliers, who share the objective to satisfy the diverse and complex needs of customers and to add value to their travel experience (Pollock, 2002).

However, this research demonstrates that only large Italian tourism enterprises have started to implement Web technology to support e-business activities and to develop a more integrated infrastructure that permits greater flexibility, quick updating of information, and the possibility to increase electronic communication with other partners. SMTE managers are gradually becoming aware of the advantages that increased cooperation could bring to their competitiveness and to the attractiveness of the destination. However, issues related to the underdeveloped technological infrastructure that favors B2B communication such as interconnectivity and interoperability need to be addressed before they can capitalize on the benefits.

Conclusions and Recommendations

Italy as a main tourism destination seems to underutilize the emerging eTourism tools. As the majority of organizations are SMTEs they model their eCommerce development on domestic tourists, who are not as technologically advanced as international visitors from Northern European countries and North America. Similarly, the national and regional tourism organizations have yet to fully explore the opportunities emerging through ICTs and hence have failed to develop a comprehensive infrastructure to promote the country widely. In the meanwhile, a large proportion of tourism organizations have been developing their online presence, through stand-alone Web pages. Although most of these pages have limited information and support the development of the online community, they have limited transaction and interoperability capabilities. This article suggests that perhaps entrepreneurial networks of interconnected supply communities at the destination level may offer a realistic and more flexible alternative to DMS for the Italian tourism industry.

A wide range of recommendations can be offered for each particular sector examined. These recommendations may support the growth of the online Italian tourism market, its interconnectivity, and also to assist the development of its competitiveness of the entire destination for the future.

Improved communication and exchange of information would facilitate e-commerce opportunities among SMTEs and supply communities belonging to different sectors, at the same destination, in order to put together more complex, personalized, and customized packages. This will allow consumers to construct their personalized packages online through the Internet. However, issues related to payments, security, privacy, and interfaces have to be resolved first. Relationships could also be developed with the main search engines, in particular the Italian ones, to achieve visibility, as 80% of domestic tourists visit Italian sites. Partnerships could also be developed with local DMOs to provide institutionalized content and to ensure the quality of information provided online by individual suppliers.

Whereas hotels used to produce their own facilities and services in-house, they can use interconnectivity to develop relationships with private providers of complementary services. This could enable them to share information and availability in real time with complementary services and to develop customized services based on resources and services being available locally. Suppliers can then meet the fast changing consumers’ requirements and perhaps improve customer satisfaction. This will facilitate e-commerce activities throughout the network and increase the quality of services, time to market, and market enlargement (European Commission DG Enterprise, 2001). The hospitality sector could be at the center of a series of activities that make up the travel experience in a certain destination, while improving its profitability and seasonality.

Larger enterprises are reorganizing their product offering, following the trend towards a “rediscovery” of the Italian resources. Research shows that the majority of Italians going on short breaks tend to book directly rather than through a travel agency. However, no research has been conducted so far to compare the cost of the same holiday offered through different channels. The intermediation sector should therefore focus on providing a complete experience and adding value to the whole experience, taking advantage of the long-standing relationships with local suppliers. The lack of computerized communication with local operators as well as with DMOs
needs to be addressed either through a comprehensive DMS or through extranets providing interconnectivity and interoperability through local supply communities.

The Italian State Tourist Office [Ente Nazionale Italiano Turismo (ENIT)] should increase the level of cooperation with the private sector in marketing and promotion. A comprehensive infrastructure needs to be developed urgently either through a major DMS or through a portal that will connect all local players. ENIT has the natural responsibility for the quality of the content made available online about Italy as a destination. This can be through integrating, classifying, and standardizing information coming from disparate sources. It becomes increasingly apparent on a global basis that DMOs will need to demonstrate leadership on the representation of the country online if destinations are to remain competitive in the long term.

This study sought to provide a general understanding of how the Italian online tourism sector has developed. Further research could specifically address all main private portals developed at a local level (national, regional, town, area) to explore the current level of interconnectivity among organizations and identify their level of success.

Biographical Notes
Dr. Dimitrios Buhalis is the Course Leader, MSc in eTourism and the Director, Centre for eTourism Research (CeTR) at the School of Management of the University of Surrey in England.

Elisa Molinaroli completed the MSc in eTourism at the University of Surrey and currently works in the private sector in Italy.

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