The tourism sector, more than many others, is going through a series of deep transformations mainly due to the globalization process and the changed conditions of an increasingly dynamic international competition. New origins and destinations of tourist flows, increasing use of new technologies, growing diversifications in the supply of tourism products are just a few examples. These elements involve all the steps of tourism production, but the introduction of new technologies in communication and information management is particularly relevant.

An effective e-commerce strategy is nowadays considered a key element to achieve a competitive advantage in the market. The integration of the Internet with traditional distribution channels allows to satisfy customers’ information needs in a highly competitive way and to acquire new clients.
In any case, the introduction of e-commerce in tourism is guided by the demand and any possible development in this field depends on consumers’ attitudes. On one hand they require travel packages, including transportation, overnight stay and other services. On the other hand the so-called “do-it-yourself” customers are looking for the highest personalization and/or the most convenient price. The latter, in particular, promotes the creation of specialized portals which allow price comparisons and, at the same time, the offer of extra services for travelers.

**The evolution of business models**

The European tourism market is characterized by new emerging actors who take advantage of the technologies introduced by Internet. The Internet has produced several changes in the tourism industry; the main impact has been on the interrelation between service providers and traditional intermediaries (Antonioli and Baggio, 2002).

The tendency to disintermediation is so strong that it seems to generate conflicts among the actors of the supply chain. For this reason some intermediaries showed themselves quite hostile towards e-commerce initiatives of hotels, airline companies and tour operators.

Today, the most usual strategy sees e-commerce complementary to traditional channels and thus applies integrative and not cannibalizing price policies. The electronic channel is seen as a way to reach higher revenues and better integration among different dealers.
Another kind of relationships deeply modified by the spreading of e-commerce is the collaboration between different companies. The increasing awareness of the potentialities and the advantages connected with the online commerce is the base of a progressive evolution from individual initiatives to cooperative strategies. This choice can be found, usually, in vertical markets, where a high complexity requires strong cooperation among actors.

Also the relations between travel agencies and their suppliers have been deeply modified by the spreading of specific e-procurement initiatives. They tend to create economies of scale by exploiting optimization and higher efficiency in the value chain by means of online supplying systems.

The feasible advantages introduced by the Internet are even more evident in the business to consumer relationship, mainly in the small and medium-sized enterprises segment. For end-users the real advantage lies in improved price transparency, faster reservation procedures, and increased discount availability. Moreover, online commerce eases the creation of marketing data-bases by collecting large amounts of data on clients and thus allowing to proceed to a better segmentation of the market and to customize the supply according to different targets.

Companies willing to activate an e-business system in the tourism sector might have to face some objective difficulties (EITO, 2001), mostly related to required investments, possible conflicts with the distribution channels, and a shortage in technical skills needed to implement timely interactive products.
Despite these worries the digital travel segment, already one of the most important of the whole virtual world, is likely to be more and more attended by cybersurfs. If we calculate\(^1\) the websites distribution on the base of subject or typology, tourism strictly meant gathers about 10% of the sites all over the world (Figure 1).

![Figure 1 World Websites Distribution](image)

Considering that areas such as entertainment and recreation are actually closely connected with tourism products, tourism appears far the most active area of the Web. Interactive and multimedia possibilities of the Web match fairly well the requirements of presentation and promotion of places and tourist destinations.

\(^1\) Calculations have been performed on the basis of Yahoo! (www.yahoo.com) classification and listings in the first months of 2001.
According to analysts (eMarketer, 2001) this steady and remarkable growth will not only concern the number of users, but the volume of commercial transactions. In the year 2000 the total revenues in Europe were about EUR 3 million. In 2002 the market reached EUR 7.6 billion and a growth to EUR 10.3 billion is estimated for 2003 (Marcussen, 2003).

The leading sectors are air ticketing, actual forerunner of the phenomenon, accommodation and all-inclusive packages offered by tour operators and travel agencies (Figure 2).

**Figure 2  European Online Tourism Market Distribution**

Source: PhoCusWright, 2001
This popularity can be seen in preferences of European buyers who put publishing goods (books and CDs) at the first place, followed by IT products (hardware and software), financial products and tourist packages (Figure 3).

**Figure 1  Products Purchased Online**

![Pie chart showing the most popular products purchased online.](image)

- Books-CD: 32%
- Hardware: 17%
- Software: 15%
- Finance: 14%
- Travel: 10%
- Food: 6%
- Apparel: 6%

Source: summary from different sources, mainly Between, 2000 and eMarketer, 2001

Purchasers are very demanding; before reserving a personal journey, more than 75% of them search the Internet looking for timetables, flights, discounts and inclusive tours. These preferences are confirmed also by the future purchasing intentions declared by Italian surfers (Figure 4).
Regardless of favorable circumstances and extraordinary development forecasts, the market of Italian online tourism is however far behind the rest of the world. In 2002 (WTO, 2003; Marcussen, 2003) electronic sales in Italy were less than 1% of the whole tourism market size, while the European average is 3.6% and the American average reaches 14.4%. These differences can partially be explained with the delay concerning the general development of e-commerce in Italy, the unease towards electronic ways of payment and the traditional suspicion towards mail-orders.

But this is not enough. Surveys on the reasons why people do not buy tourist products via the Internet show that many consumers still prefer to apply to an agency, do not trust sites of the sector or maintain they are not able to find good websites. In other
words this means that contents and services proposed to Italian users are not regarded as acceptable, but according to analysts and experts contents, services and user-friendliness are the main reasons which push people to visit a website (at the most if dedicated to tourism), to satisfy information requirements or wishes about the destination, and to support their choices (Forrester, 1999; KSRI, 2001).

**THE ITALIAN TOURISM ON THE WEB**

A critical look to the Italian scene points out that, out of many hundred tourism websites, just a few dozens are of acceptable standard or provide all the functions expected by the users.

It is no case that some of the most visited Italian sites (such as eDreams or eViaggi) are no direct expression of sector operators. Undoubtedly, retard in this field is relevant and it may be very difficult to recover.

The distribution of Italian tourism operators on the Internet, derived from the analysis of the main search engines\(^2\), is shown in Table 1

This distribution is remarkably different from the one seen above (Figure 2). Some differences are due to the restricted geographic area or by the peculiarities of Italian tourist market. Other differences, instead, can be justified only by a different attitude of Italian operators towards Internet and Web technologies. This attitude is very likely to be

\(^2\) Yahoo.it (www.yahoo.it), Altavista.it (www.altavista.it), Virgilio (www.virgilio.it) and Arianna (www.arianna.it), the survey has been performed in June and July 2001.
of deep distrust, at the most among intermediaries and in particular among travel agencies, if the proportion of their online presence is so low.

Table .

This distribution is remarkably different from the one seen above (Figure 2). Some differences are due to the restricted geographic area or by the peculiarities of Italian tourist market. Other differences, instead, can be justified only by a different attitude of Italian operators towards Internet and Web technologies. This attitude is very likely to be of deep distrust, at the most among intermediaries and in particular among travel agencies, if the proportion of their online presence is so low.

<table>
<thead>
<tr>
<th>Type</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tourist information</td>
<td>37.0</td>
</tr>
<tr>
<td>Hotels &amp; Accommodation</td>
<td>35.5</td>
</tr>
<tr>
<td>Restaurants</td>
<td>14.2</td>
</tr>
<tr>
<td>Tour Operators</td>
<td>4.3</td>
</tr>
<tr>
<td>Travel Agencies</td>
<td>3.7</td>
</tr>
<tr>
<td>Public sector, Associations…</td>
<td>2.3</td>
</tr>
<tr>
<td>Transportation means rental</td>
<td>1.6</td>
</tr>
<tr>
<td>Vectors / Transportation</td>
<td>1.4</td>
</tr>
</tbody>
</table>

**Online contents and services**

An investigation of Italian tour operators’ and travel agencies’ presence on the Web was conducted. A sample of 175 Italian tourism websites was examined\(^3\) in order to value

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\(^3\) The survey was conducted during the June-July 2001 timeframe
quantity and quality of their contents and services. Of these, 60 belonged to the tour operators and travel agencies segment, the remaining to the other sectors (hotels, public organizations, other accommodations). The sample was checked against a list containing the most important types of information and services generally offered on a website. The results are presented in Figure 5 and Figure 6. The percentage values refer to the number of websites in the sample showing the presence of that particular item.

**Figure 5  Italian TO websites Contents Map**

<table>
<thead>
<tr>
<th></th>
<th>Italian tour operators websites contents &amp; services</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Company full presentation</td>
</tr>
<tr>
<td>2</td>
<td>Short descriptions</td>
</tr>
<tr>
<td>3</td>
<td>Extended descriptions</td>
</tr>
<tr>
<td>4</td>
<td>Multimedia description</td>
</tr>
<tr>
<td>5</td>
<td>Basic info on localization</td>
</tr>
<tr>
<td>6</td>
<td>Extended info on localization</td>
</tr>
<tr>
<td>7</td>
<td>Driving directions &amp; maps</td>
</tr>
<tr>
<td>8</td>
<td>Link to external sites on the area</td>
</tr>
<tr>
<td>9</td>
<td>Articles on the area</td>
</tr>
<tr>
<td>10</td>
<td>Info on events and similar topics</td>
</tr>
<tr>
<td>11</td>
<td>Commercial info</td>
</tr>
<tr>
<td>12</td>
<td>Info on prices and updates</td>
</tr>
<tr>
<td>13</td>
<td>Web only special offers</td>
</tr>
<tr>
<td>14</td>
<td>Basic interactivity (email)</td>
</tr>
<tr>
<td>15</td>
<td>Form for info about catalogues/brochures</td>
</tr>
<tr>
<td>16</td>
<td>Newsletter / on-request updates</td>
</tr>
<tr>
<td>17</td>
<td>Customizations</td>
</tr>
<tr>
<td>18</td>
<td>Interactive simulations</td>
</tr>
<tr>
<td>19</td>
<td>Games / prizes / contests</td>
</tr>
<tr>
<td>20</td>
<td>Online purchase</td>
</tr>
<tr>
<td>21</td>
<td>E-tickets</td>
</tr>
<tr>
<td>22</td>
<td>Online reservations with offline purchase</td>
</tr>
<tr>
<td>23</td>
<td>Secure transactions / full instructions</td>
</tr>
<tr>
<td>24</td>
<td>Online customer support</td>
</tr>
<tr>
<td>25</td>
<td>Partners / resellers / local offices directory</td>
</tr>
<tr>
<td>26</td>
<td>B2B</td>
</tr>
<tr>
<td>27</td>
<td>Online merchandising purchase</td>
</tr>
<tr>
<td>28</td>
<td>Downloadable software</td>
</tr>
<tr>
<td>29</td>
<td>Downloadable documentation</td>
</tr>
<tr>
<td>30</td>
<td>Internal search engines</td>
</tr>
</tbody>
</table>
The results of the survey cannot really raise enthusiasm. Fascinating graphic effects often match scanty information about offered packages and destinations. Paradoxically, Internet, with all its multimedia potential and the huge possibility to store materials, is often much underexploited compared to the traditional and expensive paper catalogues. Interactive functions, such as the opportunity to arrange customized itineraries or to have real-time quotations and confirmations, are still very rare.

Direct buying and “easy reservation” systems are almost absent or badly designed. On top of that, the company mission is often unclear. In many cases the user cannot understand clearly why he should choose that specific operator. Little is done to win the
customer’s trust and indications about the consumer’s rights and duties are fragmentary and incomplete.

We can group the items used in the survey in four areas:

- **customer relationship** (CUST.REL): contents which make relationships with clients and visitors easier and stronger;
- **e-commerce** (ECOMM): commercial and e-business functions;
- **informational contents** (INFO): information and documentation contents;
- **interactive services** (SERV): general interactive functions and services.

A comparison including TO, TA and the general Italian online tourism sector can be summed up as shown in Figure 7.

**Figure 7  Contents and Services of Italian Tourism Websites**
It appears clearly that information and service contents are quite poor. Although these features have long been recognized as important factors in ensuring the commercial success of a website (see for example: Buhalis, 2002).

In order to evaluate the user satisfaction, an easy and effective way is to perform a heuristic evaluation (Molich and Nielsen, 1990; Nielsen, 1994). The evaluation is qualitative, visitors express their appreciation of various website usability features by means of a score (Baggio and Covini, 2001).

The selected sites have been submitted for analyses to a sample of evaluators with different backgrounds of Web navigation experience. The group consists of ten persons to grant sufficient reliability (Nielsen and Landauer, 1993). Evaluators have been asked to award a score from 1 (minimum) to 10 (maximum) to a series of 50 items grouped in the following categories:

- **first impact**: general feeling during a first scan, before an accurate visit of the site;
- **design and graphics**: quality of graphical elements (pictures, symbols, photographs, etc.), balance between texts and images;
- **information contents**: thoroughness of information, clarity of language;
- **interactivity and services**: number and quality of the interactive services, tested user-friendliness of the functions;
- **structure and navigation**: rationality of website navigation and structure;
- technical management: updating of the contents, response times, errors or missing links.

A general classification, on the base of the average score, shows Public Sector websites (Pub.Sector) at the first place, followed by hotels and, in general, by suppliers (Figure 8). Last come the commercial intermediaries (tour operators and travel agencies).

**Figure 8  Italian Tourism Websites Evaluations**

For the intermediaries sector (TO and TA) the evaluations, compared to the industry average, are shown in Figure 9.
We can state the main result of the survey by saying that the fast evolution of information and communication technologies (ICT) has not been followed so far by a resolute change in the production and the distribution of tourist products.

Obviously, the reasons cannot be reduced only to over-simplified statements about the cultural level or the extent of ICT and equipment diffusion. One of the major causes can be found in the worries about possible conflicts with the traditional distribution channels. With its presence on the Web a tour operator will try not to disturb agencies, which are the main income source. Beside that, the feared effects of disintermediation put a restraint on the development of online products, including all the services (mainly sale services) users would like to have.
FUTURE MODELS OF BEING ON THE WEB

Many new technologies are appearing in the rushing world of ICT. Among these, two seem very promising and very "close" for the tourism industry: mobile commerce (m-commerce) and recommendation systems.

A recommendation system (see for example Ricci et al., 2002) provides the user with advanced functionalities to choose his own destination and to personalize travel by combining several elementary items (hotels, transportations, additional locations to visit, services and activities). Artificial intelligence techniques make it easier for the user to peruse an information repository and allow the ranking of the items included in a recommendation. The system is also able to suggest alternative solutions taking into account expressed priorities.

The wireless technologies are increasingly diffusing. Europe, and Italy in particular, are the most penetrated areas in the world. All the forecasts (EITO, 2001) expect an even stronger increase for the next three to five years. In addition, the advent of "broadband" wireless technologies (GPRS and UMTS) can increase the user’s attitude towards the commercial side of the business.

In this scenario, ticketing and travel products are the most favored candidates for a good acceptance on the market (see e.g. Goldman-Sachs, 2000). Suppliers and travel service providers will be thus compelled to offer consumers specialized content and services over mobile devices. The benefits for tourists are obvious, as obvious are the difficulties to implement high value-added systems.
Innovative services, well organized contents and rational structures will again be the main factors to guarantee good returns from this kind of implementations.

The Italian travel service providers will have to completely change their attitude towards the new information and communication technologies.

Still, right the original collaboration spirit of the Web could offer a solution to this dilemma. The value chain of a service organization, the majority of tourism companies, consists of a series of processes integrating activities directly addressed to the end-customer. A successful product requires perfect coordination of all these processes. This is made possible (Rayport and Sviokla, 1995) by a smooth flowing of information, where the consumer is not only the final addressee, but plays an active role. What’s more, for many tourism products, processes are carried out by different actors, usually different firms, with different sizes, organizations and policies.

Up to nowadays value chains of different actors remain well separate and have as only contact points the traditional ones generated within distribution chains. On the Web a firm change is needed and the value net can be a winning concept. A value net (Bovet and Martha, 2000) is a dynamic, high performance network of customer and supplier partnerships and information flows supported by digital communications.

Such virtual organizations are essential in the fragmented tourism industry characterized by mostly small or medium size companies, with limited resources and great tendency towards outsourcing. Interaction among the members with the support of
ICT leads to reduction of transaction costs and can assure great efficiency, even greater than the one of a large traditional organization (Laesser and Jäger, 2001).

However ICT, and the Internet in particular, do not have a mere structural importance, but also act as a driver and facilitator. Compared with traditional means, the Web has all the features of a winning “channel”. It integrates, in a unified environment, many necessary and useful functions: information, collaboration, communication, interactivity, transactions (Gretzel et al., 2000).

The tourism product has a sort of genetic relationship with Internet technologies and shares with them the critical success factors (Weber and Roehl, 1999).

Tour operators and travel agencies are in direct contact with customers for sale and distribution of products. Their success is strictly bound to their ability to exploit the chain processes and to use proper technologies. If they fail the user looks for other sources.

We witness on one side a disintermediation process, with clients directly applying to service providers (accommodation structures, transportation businesses, etc.). On the other side, where quantity and quality of the supply do not allow an easy choice, the rising of new intermediaries, able to understand requirements and to offer products, whose appeal is in information and technological outfit (its real added value).

If TO and TA are reluctant (and, at the present, they definitely are) to offer their products on the Web, at the most because they want to avoid competition with the sale and distribution structures of the “real” world, then a possible solution would be to create a virtual representation of the physical value net.
A possible model includes the creation of a "place" (site, portal) by mutual consent of a mixed group of actors. It will be able to offer rich information contents and services, quality and updating, and it will help the visitor all the way through the purchase. The customer will not be left half-way through the operations to be sent somewhere else. No confusing passages will hinder the visitor or push to abandon the website.

Figure 3  New Intermediation in Tourism Distribution Chain

Merging the steps "TO" and "TA" into a single component of the chain, the chain gets shorter and value is generated for the client, reducing costs but still preserving vital mediation functions between primary suppliers and end-users. The combination of the efforts helps to increase the available financial and human resources, enriching contents and services, an essential condition to be well accepted by cybernauts. Besides, this kind of collaboration allows to create common services (business-to-business) which facilitate relationships and information exchange among partners. In the end this process reduces transaction global costs and consequently the final costs of the product. This grants a good competitive advantage.


**CONCLUSION**

Even if the demography of the Italian internet tourism is in general agreement with that of the rest of the world, the e-commerce penetration is at a much lower level than in other countries.

The survey performed on the Italian tourist websites showed that tour operators and travel agents have a lower than the average amount of contents and services, mainly in the customer relationship and e-commerce areas. Even the results of the qualitative evaluations confirm that the Italian tourism intermediaries perform poorly.

The surveys give a confirmation of the fact that one of the main reasons of the poor commercial performance of the Italian tourist sites is the relative low quality of the implementations. This low quality, however, poses a great risk of disintermediation on the whole sector. Not finding valid websites offered by traditional intermediaries, the user is more tempted to turn to the main providers to fulfill his needs.

The disintermediation effects and the fear to disturb the traditional distribution channels are the main motivations that hold back the development of online products able to offer the contents and the services the users would like to have.

Present forecasts on the near future technology developments show two main areas in which many efforts are concentrated: m-commerce and tourism recommendation systems. In both cases the requirement of high quality and highly usable implementations is of paramount importance to be able to obtain a good economic performance.
Future website implementations could exploit the original collaborative spirit of the Web by adopting a new business model in which more different operators, not giving up their identities, can share skills and experiences to provide a high quality proposal.

Such a value net, with a strong focus on the end-user, can be of great significance for both the operators and the customers. It can be able to provide a content-rich site, efficient B2C services, effective B2B tools for the participants and economical means of reducing the time-to-market of all the products, while the shortening of the distribution chain can reduce the costs to the customers.

Finally, having the opportunity to reach a critical mass of investments, it will be possible to thwart the objections on the rising costs of high quality commercial websites implementations.

REFERENCES

Antonioli Corigliano, Magda and Rodolfo Baggio, (2002). Internet & Turismo. Milano: EGEA.


