



Emerging Trends in Customer Relation Management Using ICT: the Travel Industry

Issue Report N. 22
Draft October 2002

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Expert: _____

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NOTE: Please tick the appropriate box

1. Innovative objectives

- Very good
- Good
- Fairly good
- Poor
- Very poor
- Other comments: _____

2. Approach and Methodology

- Very good
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- Fairly good
- Poor
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3. Topicality

- Very good
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4. Quality of results: did the report reveal new insights?

- Many
- Some
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- Good
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- Poor
- Very poor
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OVERALL ASSESSMENT

- 1 = Very good 2 = Good 3 = Fairly good 4 = Poor 5 = Very poor

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Preface

Europe is entering into the new economy, but little is understood about it beyond its disruptive potential – only that the transition phase from a post-industrial to a globally networked knowledge society is likely to take 20 or 30 years. The STAR project – Socio-Economic Trends Assessment of the digital Revolution - is focused on the analysis of the development of the Digital Economy in Europe, in order to contribute to a better understanding of the conditions leading to sustainable social and economic growth patterns – how to survive the transition phase.

*STAR is an initiative of **Key Action II “New Methods of Work and Electronic Commerce”**, one of four key actions of the **User-Friendly Information Society Programme**. The IST Programme is part of the European Union’s Fifth Framework Programme for Research and Development. Its objective is to ensure that all European citizens and companies benefit from the opportunities of the emerging Information Society. Key Action II is designed to both give workers and enterprises a competitive edge and to improve the quality of everyone’s working life. It embraces technologies and issues as diverse as teleworking, the virtual company, logistics management and trading goods over the Internet. It aims to develop and demonstrate world-best work and business practices, exploiting European strengths in software, mobile technologies and enterprise management.*

STAR original research will contribute to achieve Key Action II goals by analysing evidence on the multiple changes brought about by the new economy in the socio-economic system and their policy implications. The consortium will interact with a Forum of experts within and outside the IST Programme to receive feedback and insights on STAR results.

STAR results will be published as a series of Issue Reports, Executive Briefings, and workshop presentations addressed to policy makers, industry managers and research experts. A Summary Report (annually from 2001 to 2003) will offer a synthesis of the overall conclusions, and present scenarios for the evolution and socio-economic impact of the digital economy in Europe.

This report belongs to the STAR Issue Report series. The list of Reports is published in the annex. All reports are available for downloading from the project’s web site at www.databank.it/star.

The opinions expressed are those of the authors and do not necessarily represent the official views of the European Commission or any other organisation or institution.

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Executive Summary

The Internet is gradually gaining ground in the travel and tourism industry as a distribution channel that offers direct and interactive communication with final customers allowing for more targeted distribution of information at a lower cost. At the same time, it offers suppliers in the industry the potential to by-pass intermediaries in the value-chain and thus increase their revenue base. These trends call for new business models to be developed by travel and tourism companies for managing their relationships with intermediaries and final customers. The application of e-business methods in Customer Relations Management (e-CRM) provides such an opportunity.

E-CRM involves the translation of existing techniques for finding customers in the electronic environment, providing them with products and services customised to their needs, retaining their loyalty, and attending to their needs for information and support in the use of these products. Many e-CRM techniques are already employed by businesses using non-electronic methods. Some, such as intelligent agent technologies, the linking of call centres to Web sites, and the use of data warehousing techniques to perform detailed analysis of customer needs, are new or offer new opportunities in the context of the Internet or other advanced ICTs.

This STAR report focuses on the use of ICTs in the organisation and management of customer relations in the travel and tourism industry and elaborates on their potential evolution. The report uses the results of an exploratory study involving detailed interviews in 18 companies across all main types of business activity in the industry (airlines, travel agents, tour operators, passenger transportation companies). The companies were based in Germany, Greece, Italy, France and the UK and the interviews were conducted in early summer 2002 using a structured interview questionnaire. The questionnaire was divided into five sections each looking respectively at:

- The *functional changes* occurring in business functions related to CRM
- The *organisational changes* brought about by e-CRM
- The *impacts of change*, and
- The *drivers, barriers and perspectives* from the introduction of e-CRM

Despite early enthusiasm with e-business, on-line sales of travel and tourism companies currently account for less than 5% of their total revenue base. The vast majority of companies in the sample use the Internet as a medium to provide customers with content-rich information and the opportunity to choose, plan, and often book their holidays or business trips online. Still, the delivery of services happens in more traditional ways at fixed, off-line points of sale or at home. With regard to e-CRM, its adoption is mainly driven by (a) the need to provide better service to customers in profitable business areas in order to capture opportunities for additional revenues; and (b) the need to reduce internal information processing costs by passing on to customers certain low value added tasks.

New Internet-based technologies support companies in the travel and tourism industry to integrate customer information received from various sources. In this respect, customer

relations have become stronger and more 'personal' with the use of e-CRM, as the technology allows companies to contact customers individually in a fast and cheap way and to receive frequent feedback from them. Among the various methods available for identifying, gaining and retaining customers, companies are particularly keen on using and maintaining customer databases and less keen on setting up interactive questionnaires, which are often treated as a nuisance by the customers. Nevertheless, the vast majority of companies examined lacked a consolidated database with sufficient intelligence to analyse customer data and assess customer value. Similarly, customer profiling although available as a technical option by most companies has not been in use as extensively as one might expect. On the contrary, the methods widely used for retaining customers are (a) the offer of special conditions to on-line customers and (b) the personalisation of communication in the form of e-mail and SMS alerts.

For most companies the web serves as a primary source of information and marketing tool for their services. E-catalogues are cost-effective, can be more detailed than paper catalogues, and are friendly to use even for customers with basic Internet skills. Also the web offers opportunities for the 'bundling' of services. Supplier companies, in particular, have the opportunity to enlarge the type and amount of information provided on the web by setting up partnerships with other actors in the value chain (mainly tour operators, traditional and new web-based travel agents) or independent companies (e.g. Amazon bookstore for ordering travel books). In mature Internet markets the web also facilitated the emergence of a new type of customer, the 'web-savvy' type. This type of customer does demand complex combinations about which he/she knows as much as the travel agent. This sort of web transaction requires concentration from the user, and may have a high value for the travel company.

Due to its dynamic nature, the Internet has the potential to capture customer concerns and frustrations providing companies can act on them and respond effectively. For this purpose, however, they need to have the ability to switch on/off feedback mechanisms, which at the moment companies in the travel and tourism business seem to lack as their back office systems remain highly fragmented.

Where the adoption of e-business methods did have a significant impact was on the relations with intermediaries. There was a consensus among companies irrespective of their primary line of business, that, to a limited extent, e-business and the Internet are reducing intermediation costs which are the most critical cost factors in the travel and tourism industry. Traditional intermediaries, such as the travel agents, complain about this 'new' competition from suppliers while web-based travel agencies make their way into the travel and tourism business aiming to compete on equal terms with service suppliers. Thus, the effort to keep all different distribution channels operating in parallel appears to be a major challenge for suppliers in the industry. The latter need to ensure that not only their own employees but also their resellers are well motivated. This is particularly the case since, as argued during the interviews, the value-added offered by travel agents will never become obsolete since complex products will always require composite information and expertise that ordinary travellers rarely have.

Although most interviewees stressed that it is too early to assess the impact of e-CRM methods on customer relations, they felt that their companies' performance in relation to customer retention and satisfaction had improved as a result of their online presence. Several barriers and constraints were identified in the adoption of e-CRM including the maturity of the market to which companies address their products and services, the financial resources required, and the prevailing structures and modes of practice within organisations which inhibit the establishment of new business routines.

Companies were also keen on extending the scope of e-business practices in CRM. The majority was working on ways to improve existing service offerings. Another group appeared keen on developing new service offering targeting individual and corporate users and a smaller group of companies reported that they intended to extend e-business practices to back office functions.

These findings suggest that although the majority of surveyed companies value e-CRM and have started to commit resources to relevant initiatives, few companies have actually been engaged in mature, long term planning regarding e-CRM proper adoption and use. However, the real challenge for travel and tourism companies in order to realise productivity gains is the automation of their back office operations. The challenge therefore is not to implement technology-based CRM solutions but to establish the associated organisational and cultural (customer-centred service provision) change within companies that would allow CRM to contribute to productivity and profitability.

1. Introduction

1.1. *New Frontiers in e-Commerce*

Business uses of Information and Communication Technologies (ICTs) to enhance competitiveness and sustain growth, and thereby to create net employment gains, are key expectations of e-commerce and the new ways of working. Socio-economic research on business use of these technologies has, to date, focussed on a critical assessment of the potential offered by business-to-customer (b-c) e-commerce and on a more optimistic assessment of the contribution of business-to-business (b-b) e-commerce (see, for example, Mansell and Steinmueller 2000).

Recent research on e-commerce emphasises that businesses are finding the Internet and other advanced ICTs to be essential components of their business strategy. But use of these technologies does not appear to create dramatic short-term changes in their competitive positions. The new technologies are providing another outlet for conducting business, which has its own distinct advantages and drawbacks.

This view based on business experience is different from that of the most aggressive promoters of e-commerce methods. The promoters of the revolutionary implications of the Internet argue that it will dramatically restructure the division of labour and the nature of sales and distribution channels for products and services. Confidence in these predictions within the investment community helped to create the dot.com investment bubble. Today, an unrealistic pessimism may be replacing the earlier exuberance.

Promoters are still keen to find the 'next big thing' in e-commerce. A leading candidate is the use of e-commerce techniques in customer relations management (e-CRM). e-CRM involves the translation of existing techniques for finding customers in the electronic environment, providing them with products and services customised to their needs, retaining their loyalty, and attending to their needs for information and support in the use of these products. Many e-CRM techniques are already employed by businesses using non-electronic methods. Some, such as intelligent agent technologies, the linking of call centres to Web sites, and the use of data warehousing techniques to perform detailed analysis of customer needs, are new or offer new opportunities in the context of the Internet or other advanced ICTs.

This report is one of a series of in-depth studies of e-CRM produced by the STAR project, a consortium of leading European research institutions conducting research on the transition to the Information Society. Assessing the current state of e-CRM development, identifying emerging opportunities for its productive use, and evaluating its organisational and employment impacts are the key objectives of this series of reports.

1.2. *Why study e-CRM?*

The Internet and other ICTs offer extraordinary opportunities for innovation in customer relations management. These technologies may empower customer choice and offer unprecedented amounts of information about customer needs and desires. They offer new means for customers to find product and service information, to negotiate purchases, to make enquiries about the conditions of sale and support for their purchases, and to track deliveries and requests. For businesses, e-CRM provides new ways to recruit customers and retain their loyalty, to customise services and provide personalised products and services, to identify emerging patterns of demand in style and to enhance links with suppliers to meet these demands. e-CRM is a good candidate for a systematic examination of organisational and technological innovation because of the diversity and potential impact of the opportunities it provides.

The implementation of e-CRM also raises questions about *how* customer care and the customisation of products and services will be delivered. Many of the functions provided by e-CRM appear to substitute for experienced and knowledgeable sales representatives. They may provide opportunities for creating a smaller and more specialised sales force. Other features of e-CRM suggest a higher level of interaction between customers and sales employees. This may create a need for expanding employment at all levels of skill. Understanding the timing and extent of these employment changes is vitally important for understanding likely changes in employment levels and also the emergence of skill gaps and shortages.

The existence of e-CRM's potential does not tell us when or precisely how it will be realised. This is why systematic research is needed to anticipate Information Society developments. The aim of STAR e-CRM research is to provide a pragmatic and wide-ranging exploration of progress towards realising the potential of e-CRM in Europe. To do this, the STAR project has conducted interviews with over 100 business leaders from European business in 65 major companies providing retail, financial, travel, and other services to European customers.

1.3. *The focus of this report*

This report looks at new developments in e-CRM in the travel and tourism industry. Over the last two decades, the travel and tourism industry has experienced remarkable changes in its organisational structure due to the increased use of the Internet in business processes. The advent of the Internet, along with increasing globalisation and growing competition have brought fundamental changes in the way information about travel and tourism products is distributed and delivered. The phenomenon of disintermediation has emerged as the use of a public shared infrastructure such as the Internet removes the strong advantages of the four proprietary Global Distribution

Systems (GDSs) and their main shareholders, the travel suppliers, in travel information distribution.¹

At the same time, re-intermediation has also occurred as a result of consumers' increasing needs for information and reductions in their search costs. The new tourism *eMediaries* are web-based and facilitate the re-packaging, distribution, and timely delivery of content-rich information (Buhalis, 2001). These include traditional travel and tourism suppliers that have set up online activities, new web-based players like Expedia.com and Travelocity.com, Internet portals, media companies, and auction sites. The travel and tourism industry has become one of the most important users of the World Wide Web as it has been estimated that between 33 to 50 percent of Internet transactions are tourism-related (Werthner and Klein, 1999). A result of the above trends has been an increase in the bargaining power of both customers and suppliers of tourism products and services and a power shift toward both ends of the supply chain (Gretzel, 2000).

Interaction with customers, in particular, has been enhanced and organisations who wish to remain competitive have started to implement CRM programmes and techniques in order to develop closer relations with their customers and to develop a better understanding of their needs. For example, it has been found that booking holidays at the last minute accounts for 10% of all holiday bookings (EITO, 2001). This has led tourism destinations and tour operators to set up a web-presence and to increase the capacity of their call centres to support it. The ultimate goal is to provide detailed and up-to-date information to potential travellers. At the same time, the use of e-commerce techniques in CRM allows travel and tourism organisations to identify customers, monitor their habits and use of information, and deliver them improved information and services according to their recognised needs and buying behaviour (Dutta, et al., 1997).

The focus of this report on the use of ICTs in the organisation and management of customer relations in the travel and tourism industry provides unique insights into the state-of-the art of e-CRM practices in this industry and elaborates on their potential evolution.

¹ The GDSs are electronic communication systems which serve as distribution channels in the tourism industry. They act as giant 'extranets' which connect tourism suppliers and also happen to be their major shareholders- (airlines and accommodation corporations) with intermediaries around the world. Over the last decade they have evolved into 'electronic travel supermarkets' which offer bundled products and services including holiday packages, car rentals, theatre tickets, information on destinations, etc. (Buhalis, 1998). Currently there are four GDSs that dominate the global market: Amadeus, Galileo, Sabre, and Woldspan.

1.4. Work Method

The data presented in this report come from an exploratory study involving detailed interviews with a variety of leading industry actors in the travel and tourism business (airlines companies, travel agents, tour operators, and passenger transportation companies) using a structured interview questionnaire. The interviews were conducted in early summer 2002.

The questionnaire was designed to serve as the basis for qualitative rather than quantitative research. Specifically, it was intended to collect qualitative information about the status of e-CRM and trends in the tourism service industry and also to embrace the views of those involved directly in CRM. The questionnaire consisted of two parts. The first part ("Company profile") provided an institutional presentation of the company selected for the sample and a description of the stage of e-business implementation in that company. Specifically, the "Company profile" was used to gather information concerning the activity of the company, its ownership structure, type of market involved, number of employees and revenues as well as indicating whether a company was at an early, medium or advanced stage in the adoption of e-business. The interviewer compiled this part before the interview using information collected through desk-based research and searching the Internet.

The aim of the main body of questionnaire ("Interview Guide") was to investigate the use of e-business in customer relationship management and related organisational changes. It was divided into five sections:

- *Functional change*: the main changes occurring in business functions related to CRM (identification, acquisition and retention of customers) as a result of the introduction of e-business methods;
- *Organisational change*: the changes brought about by e-business methods in the way a company organises its relationships with suppliers and distributors;
- *Impacts of change*: evaluating the positive or negative impacts of e-CRM on a company's competitive performance and relationships with customers;
- *Assessment of Employment and Skills Impacts*: the impacts of e-CRM on the number and characteristics of jobs and the skills required. This part of the questionnaire is not discussed in the present report, see STAR Issue Report No 24 which deals exclusively with this aspect;
- *Drivers, Barriers and Perspectives*: the drivers that led a company to introduce e-business in CRM, the problems it encountered, and the plans for the future in terms of exploitation and/or extension of e-business practices in other company activities.

The questionnaire results were processed anonymously and the interviewee data have been treated confidentially.

The survey sample in the travel and tourism industry contained 18 companies across all main types of business activity in the industry (see Table 1). The companies were based in Germany, Greece, Italy, France and the UK. Companies were selected on the basis that they fulfilled one or more of the following criteria: (a) they had an informative web site; (b) they were leading players in one or more lines of business in the travel and

tourism industry; (c) they had introduced e-business methods including online order and/or online payment for their services; (d) they exhibited some visible effort towards (re)-organising their CRM strategies to become more customer-friendly. In the last case, the involvement of ICT was considered a desirable, though not necessary, condition, since preliminary research indicated that ICT-based CRM initiatives are still at an embryonic stage in the travel and tourism sector in Europe.²

Table 1 Main activities of travel and tourism companies in the survey sample

Travel services	DE	Aviation services for person and freight transport	1
		Passenger transportation (regional, national and international)	1
		Travel agency for selling holiday journeys of all leading travel organisers	1
	FR	3 business lines: a) hospitality (hotels); b) complementary activities: tourism, food, casino; c) services: lunch vouchers, services to the person, professional expenses management, services to collectivities, events, incentive seminars	1
		Railways	1
		Tour operator and travel agency	1
		Network of travel agencies specialised for business travels	1
	GR	Air transportation	1
		Travel agent and tour operator	1
	IT	Airliner and charter transport services	1
		Passenger air transport	1
		Passengers and freight air transport	1
		Tour operator	1
	UK	Airline	1
		Low coast point-to-point airline	1
		Tour operator and sales of flight seats	1
		Tour operator, foreign exchange dealer and travel agent	1
		Tour operator, holiday airline operator, retail travel shops, holiday hotels	1
Total		18	

Source: STAR consolidated research

The majority of companies are 'old' players in the European travel and tourism market. Some of them have been in operation for several decades with only four reporting a founding date after the mid-1990s. Table 2 indicates that only two companies interviewed were state-owned and the majority operated mainly within national borders.³ Also, the sample contains mainly large companies in terms of both size (number of employees greater than 1,000) and revenues (more than 200 Mn €.) Most responding entities (11) target both the consumer and the business segments of the market, whereas there are a few companies (6) that serve mainly individual consumers and only one that targets the business segment.

² In particular, a survey by KPMG conducted between August and October 2001 collected questionnaires from 500 companies in all segments of the travel and tourism sector in Europe. The survey found that around a third of participating companies had embarked on some form of e-CRM programmes and another 20% were planning CRM initiatives in the foreseeable future. However, it is important to note that unlike our research sample, the KPMG survey included web-based travel companies, which due to their nature and culture were found to be particularly prone to committing to CRM adoption.

³ An exception here is the airlines which although classified as 'national companies' normally maintain contact points in more than one country around the world.

Table 2 Ownership structure and company type

Ownership structure

Quoted company	Private	Government controlled	TOTAL
8	8	2	18

Type of company

Multinational headquarters	Multinational subsidiary	National company	TOTAL
5	3	10	18

Source: STAR consolidated research

Table 3 Number of employees and company revenues

N. employees (world-wide classification)

50-250	251-500	501-1000	>1000	N.A.	TOTAL
1			10	7	18

Company revenues world-wide (Mn €)

< 25	25-50	50-200	>200	N.A.	TOTAL
		2	9	7	18

N. employees (national)

100-250	251-500	501-1000	>1000	N.A.	TOTAL
1		4	12	1	18

Company revenues national (Mn €)

< 25	25-50	50-200	>200	N.A.	TOTAL
		3	12	3	18

Source: STAR consolidated research

The research methodology enabled the collection of both qualitative and quantitative information about a number of trends surrounding the emergence of e-CRM in the travel and tourism industry.

1.5. Structure of the report

This report is structured as follows:

Section 2 provides an overview of current trends in the travel and tourism industry putting particular emphasis on the rise of the Internet as a new medium for conducting business. E-business applications including CRM solutions are gradually gaining ground and becoming widely deployed by participants in this industry since they create a more direct, two-way communication channel with consumers.

The following Section 3 presents for analysis the survey findings. It starts with a description of the overall status of e-business implementation in the companies in the

sample and identifies some key trends regarding CRM. Next, based on the response of the representatives of firms in the sample, the report discusses four related themes:

- the *key drivers* that have led businesses in the travel and tourism sector to adopt e-business methods to serve their customers;
- the *functional changes* brought about by the introduction of e-business methods in customer relationships;
- the subsequent *organisational changes* brought about by the introduction of e-business activities; and finally;
- the *impact* of these changes on organisations' competitive performance;

In the 'key drivers' discussion, the key issue addressed concerns the main reasons organisations claim to be introducing e-business methods into customer relationship management.

With regard to functional changes, three categories of 'functionality' appeared to be particularly useful for assessing changes in business processes resulting from the introduction of e-CRM: (a) finding and retaining customers, (b) customising services for customers, and (c) delivering services to customers. This discussion explores the impact of the adoption of e-business techniques in these domains. The main issue is whether new ICT-based methods have been introduced for customer identification and retention and the customisation of services or whether these methods already existed in the companies and are only partially modified by the introduction of ICTs.

The discussion of organisational changes provides an evaluation of development in the organisational structure and the boundaries of the firm that have occurred as a result of the introduction of e-business techniques in customer relations. Particular attention is paid to the ways in which e-business affects the organisation's relationship with intermediaries and to the ways in which e-business influences the boundaries of the firm, e.g. through outsourcing or vertical integration.

The last issue discussed is the impact of e-CRM on competitive performance with an emphasis on the opportunities provided for extending the geographical 'reach' of a company and its customer segments.

Finally, section 4 summarises the perspectives of the actors in the travel and tourism industry on the adoption of e-business methods in customer relationships and assesses the dynamics and barriers in CRM adoption that are likely to drive developments in this industry over the coming years.

2. The world travel and tourism industry: key figures and trends

2.1. *Background to the travel and tourism industry*

The Travel and Tourism industry is a “horizontal” industry that comprises a wide range of economic and social activities, which produce a number of interrelated products and services (EITO, 2001). These can be grouped into three main categories:

- *Supplier services* (accommodation services; food and beverage serving services; passenger transport services)
- *Intermediation services* (travel agency, tour operator and tourist guide services; finance and insurance related to travel and tourism)
- *Content services* (i.e. cultural and entertainment services, recreation activities).

In Europe, the travel and tourism industry has experienced significant growth in recent years. Despite the overall negative impact on world travel and tourism of the September 11 terrorist attack,⁴ the demand for travel and tourism products is expected to grow by 4.1% per annum, in real terms, between 2002 and 2012 (World Travel and Tourism Council (WTTC), 2002). On the employment side, in 2002, travel and tourism employment is estimated to reach 11.9% of total employment, which is one in every 8.4 jobs. Despite the current recession and the significant job losses after the September 11 attacks, growth in employment is expected to recover and is estimated to reach 13% of total employment in the world economy by 2012, that is, one in every 7.7 jobs (ibid).

Like any other industry, the travel and tourism industry enjoys particular characteristics which provide it with opportunities but which also make it vulnerable to change. More specifically,

- the travel and tourism industry is very sensitive to economic downturns and socio-political crises (Gulf war, September 11 events);
- the travel market is mainly driven by supply. The industry has traditionally worked more on the supply side, i.e. offering an increased range of products and services, than on satisfying pent up customer demand;
- the travel and tourism industry does not enjoy a “naturally” captive customer base. Customers switch easily between travel agents and tour operators comparing offers and trying different products;
- the industry operates on low margins and most players have to maintain and manage costly operations. Their limited investment resources have forced them spend only on necessary, basic investments;
- to face increasing competition, key actors have started to reorient their operational strategies towards the customer. The increasing inability of travel companies to compete on price, has acted as a catalyst to reorient their business strategies from a price-focus to a customer-focus.

⁴ According to the World Travel and Tourism Council (WTTC), the total impact of the September 11 2001 (9/11) tragic events is estimated at a loss of 7.5% on Travel and Tourism Demand.

Over the last two decades the industry has experienced major transformations, some of which are linked to the nature of the industry and the habits of customers as described above. In particular, two major trends have characterised the industry: the concentration of economic activities, and the increased usage of ICTs to respond to tourism demand and supply (Buhalis, 1998).

A series of mergers, acquisitions, and partnerships has taken place in the travel and tourism industry in recent years. One of the main driving factors behind business concentration is the pressure by large tour operators to establish links with suppliers (airline companies and accommodation service providers) in order to vertically integrate their businesses. They form large conglomerates which are better positioned in the market and have direct control over a whole array of services. In this way, large tour operators have reduced risk and have better control over prices and profit margins (CELTTA, 2001). Other factors associated with this trend involve the development of mass tourism (especially in Northern Europe), the general trend towards standardisation in product offerings (e.g. holiday packages), and the financial weakness of most small and medium industry players. The drive by tour operators to achieve economies of scale has led to consolidation and to the emergence of large players such as Preussag (top ranked) and Thomas Cook (second ranked) in Europe. It is estimated that the top ten European travel and tourism consortia generate more than 70% of the human traffic volume in the sector. In the near future it is expected that the top three will have total control over the market (CELTTA, 2001). At the same time, this process of business concentration through vertical diversification has brought changes in the ownership of assets. Large financial and industrial groups, even though not directly operating in travel and tourism, often provide the financial resources necessary to invest in the sector.

The second important trend has been the increased sophistication of Information and Distribution Systems operating in the travel and tourism industry and the growing usage of the Internet. The latter, in particular, has brought changes in the role of traditional actors in the tourism value chain and in the way inter- and intra-organisational functions are performed. As a consequence, fundamental changes in industry structure are taking place, while competition in the industry has been intensified.

2.2. *E-business in travel and tourism*

The traditional value chain of the travel and tourism industry consists of five main types of actors:

- Suppliers (airlines, transportation companies, accommodation service providers);
- Tour operators, whose role is to bundle the offerings of suppliers;
- Global Distribution Systems (GDS), which are used by other actors to manage prices and inventories in real time. The most well-known are Amadeus, Galileo, Worldspan and Sabre;
- Travel agents, who act as intermediaries and distribute travel products from carriers, receivers and tour operators to the final customer;
- Final customers/ travellers.

Tourism is an information-based industry and its products have a high information content (OECD, 2001). At the same time, the traditional structure of the industry involves transactions among different actors who often act as intermediaries throughout the value chain. Given that the potential of the Internet is highest in sectors where a lot of agents/third parties are involved, and where the transactions do not involve physical products (ibid), tourism products, because of their intangible nature, are well suited to take advantage of e-business opportunities. For this reason, the increased use of the Internet in the tourism business activities has not only improved communication and connectivity among the different actors but has also contributed to the transformation of the traditional value chain. More specifically,

- *Product suppliers* such as airlines and passenger transport companies are increasingly relying on e-business technologies to bypass the traditional distribution channel of travel agents. Prices in tourism are subject to frequent changes due to the nature of the product and variations of tourism activity in time and space. Through e-commerce, suppliers are able to develop new models for dynamic pricing and for selling their products as 'last minute offers'. Carriers, on the other hand, which are the historical shareholders of GDS, have withdrawn some of their capital from the GDS in order to launch initiatives to directly target the final customers aiming to reduce the high distribution costs encountered today.⁵
- *Tour operators* resort to e-business technologies to bypass the GDS and to develop direct Internet-based interfaces with consumers.
- *The GDS* have recognised that their added value comes from the information they possess rather than from the technology they provide and seek to become travel integrators. In this way, GDS become direct competitors to their main customers, the travel agencies.⁶
- *Travel agents* have been the traditional intermediaries in the tourism value chain and have multiple roles. They are information brokers passing information from product suppliers to customers; transaction processors issuing tickets or forwarding money; and advisors to their customers, providing them information and assisting them in their choices of products and destinations (Gretzel, 2000). Traditional travel agents take advantage of new ICTs and update their offerings in order to remain competitive. At the same time, the open nature of the Internet has reduced barriers for small creative firms that emerge as new electronic intermediaries. These virtual travel offices are usually very small companies offering various types of travel information, resources, and other facilities (e.g. auctions) to the 'Internet-savvy' type of traveller and to ordinary customers who wish to make informed decisions - even though they tend to complete transactions off-line. The experience so far suggests that 100% virtual travel shops are not particularly successful unless they are part of an existing brick-and-mortar travel shop that wish to maintain an additional on-line sales channel.
- *Customers/travellers* are becoming more and more accustomed to the use of new technologies and are able to use a more dynamic tool to contact suppliers directly, to choose travel destinations, to obtain on-line travel information, to compare prices, and

⁵ For example, Air France has slowly withdrawn from Amadeus and has relaunched its website while joining Opodo - the first pan-European travel portal.

⁶ A precursor of such a system can be seen in *Travelocity*, a SABRE-initiated project on the Internet.

to proceed to online booking and purchasing.⁷ Also consumers can interact on-line in specially designated areas created by the electronic intermediaries to exchange views and travel experiences and to publicise travel reviews.

In fact, customers are the most critical element in the tourism value chain. A major concern for product suppliers is to maintain access to their customer data in order to be able to identify customer profiles from their buying habits and behaviour. This information is central to successful marketing and allows them to monitor their distributors, which have traditionally enjoyed privileged access to this valuable information. Through e-commerce travel and tourism companies can create a more direct communication channel with customers and develop knowledge of their customers' preferences and habits that allows them to maximise sales opportunities. e-CRM practices, that is, the application of new ICTs to the management of customer relations could be of significant value to companies in the travel and tourism industry.

2.3. *e-CRM in travel and tourism*

In 1988, the World Tourism Organisation (WTO) stated that 'the key to success lies in the quick identification of consumer needs and in reaching potential clients with comprehensive, personalised and up-to-date information' (Buhalis (1998)).⁸ CRM solutions provide the means to achieve these objectives.

Although there are many definitions of CRM in the management literature, we use the one developed by the Nykamp Consulting Group which summarises it as 'optimising all contacts with customers or potential customers'. The Nykamp CRM Cycle (Figure 1) is a useful conceptual scheme to indicate the merits and scope of CRM. The cycle begins with a company's thorough understanding of customer needs. Customers are then managed throughout all their interactions with the company so that their profitability is maximised while the cost of servicing them is proportionate to their revenue potential (KPMG, 2001). For this to happen, companies need to have developed sophisticated data management systems, which integrate customer information received from various sources. Therefore, CRM should be seen as a business strategy that entails data-intensive work at both the back office and the front office. The ultimate objective of this strategy is for the company to gain and retain valuable customers in terms of the profits they can generate.

In the context of the travel and tourism industry, new Internet-based technologies can support companies in addressing these challenges in many ways. By providing new marketing and distributing channels for the companies' products and services using the Internet, they also provide the first step in developing CRM, which is building knowledge of a company's customer base. Through e-commerce, travel and tourism companies can create a more effective direct communication channel with consumers as it allows for:⁹

⁷ As Buhalis (1998) rightly points out, in reality different customer groups will use different distribution channels for selecting and purchasing tourism products. Thus, the on-line channel will most likely complement rather than completely replace the traditional purchasing methods.

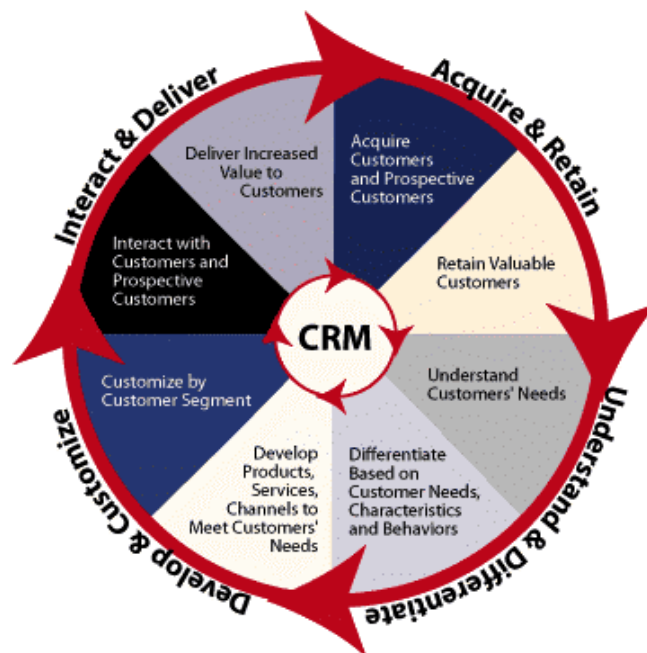
⁸ WTO (1998) *Guidelines for the Transfer of New Technologies in the Field of Tourism*, Madrid.

⁹ See Bloch and Segev (1996).

- Direct connection between buyers and sellers
- Full information exchange between them
- Time and space economising
- Interactivity with customers
- Real-time update of information.

In this context, it is not surprising that suppliers such as the airlines are pursuing vertical and horizontal alliances in their efforts to access more customer information.

Figure 1 The Nykamp CRM cycle



Source: <http://www.dmreview.com/master.cfm?NavID=55&EdID=1571> (last accessed 15.7.2002)

The adoption of e-commerce practices creates a flow of crucial information for companies and enables them better to segment the market and customise their offerings according to different customer segments. For example, experience from off-line sales suggests that leisure travellers are attracted by a convenient way of accessing information, low prices, and more personalised advice or the collection of past experience. Business travellers, on the other hand, are attracted by having more control over their travel expenses, long-term pricing arrangements, and a quick and easy way to make repeated travel arrangements (Bloch and Segev, 1996). The extensive use of computerised information systems in communications with customers and in the whole spectrum of business activities coupled with traditional marketing tools, allow for the profiles of consumer purchasing habits to be researched and understood in all stages of the buying process.

The following sections discuss in more detail the current status of e-CRM development in the travel and tourism industry and present the findings of the STAR consolidated research effort in the 18 travel and tourism companies included in the sample in Europe.



3. e-CRM in travel and tourism: developing the evidence base

3.1. *General status of e-business implementation*

Table 4 overleaf shows that the optimistic views of market surveys about the Internet steadily becoming a competitor to the traditional travel agencies are partly confirmed by our research. As Table 4 indicates, the vast majority of the companies examined use the Internet as a medium to provide customers with content-rich information and the opportunity to choose, plan, and often book their holidays or business trips online. In this context, e-business methods are mainly translations of existing techniques which, apart from introducing a new distribution channel, also allow for the development of new services. For example, apart from the extensive catalogue search and the in-depth information on services available, other specialised services reported to be available on companies' websites include:

- Customer care services permitting customers to report inefficiencies in service provision and monitoring the progress of complaints;
- Complete organisation of travel trips and/or holiday packages including travel budget management, online availability check for flights and accommodation, and online purchase;
- Online help desk, access to the enquiries database and to Frequently Asked Questions (FAQ);
- Possibility to modify a customer profile online;
- Access to additional services and sales channels beyond a company's core offerings¹⁰;
- Instantaneous price tuning;
- Special offers and promotions;
- Registration to mailing lists in order to receive free e-mail alerts on news and special promotions.

Despite the view that security problems regarding online payments hinder customers using the Internet as a booking channel, leading travel and tourism organisations appear to invest in Internet technology seeking to attract the more mature Internet users and offering them the options of online ordering and billing. As Table 4 indicates, 16 out of the 18 companies participating in the survey offer the possibility of online ordering while 15 of them allow online payment for each purchase using a credit card or bank transfer. Still, for the vast majority of companies, the delivery of services happens in more traditional ways at a traditional point of sale or at home.

In some cases, the characteristics of travel and tourism services make them ideal trading items on the Internet. Some tourism products, such as air and rail tickets and theatre bookings, are intangible in nature but rich in information content and thus are more

¹⁰ For example, a passenger transport company offers not only online tickets but also web enabled booking solutions for car rentals and hotel accommodation. But experience with these additional offering varies. An interviewee reported that they are not used extensively by web visitors.

pertinent to online delivery. The research revealed examples of companies delivering services online, including:

- Airline companies offering 'electronic tickets', (e-tickets) through their websites that allow passengers to check-in and board using a personal ID code (e-check-in);
- Passenger transport companies offering tickets online that can be printed from the web.

Nevertheless, initial investments in e-business are not likely to be balanced by an increase in revenues in the foreseeable future as for most players interviewed online sales currently represent less than 5% of their total revenue base (see Table 5).¹¹

Table 4 Main e-business services offered

Services offered on the website (multiple answers allowed)

Product database/ Catalogue search	In-depth information on products /services	Real time statistics (i.e. on services availability)	Customisation of services	E-mail inquiries	Others
17	16	14	10	18	7

Possibility of orders online

Yes	No	Planned	N.A.	TOTAL
16		1	1	18

Possibility of online payments

Yes	No	Planned	N.A.	TOTAL
15	1	2		18

Modality of online payments

For each purchase/credit card/on bank account	Subscription	Pre-paid amount to use at will	Miscellaneous	N.A.	TOTAL
15			1	2	18

Delivery of services

	Yes	No	Planned	N.A.	TOTAL
Through a traditional point of sale	15	2		1	18
At home	16			2	18
Online	6	8	1	3	18

Source: STAR consolidated research

¹¹ The exception here is a well-known airline company which has adopted low cost, simple products, and direct (i.e. agentless, or phone-only) sales as its basic business "model". The Internet happens to be its main route to customers and reports 90% of its turnover to come from Internet sales.

Table 5 Percentage of online sales on total revenues
(including online orders without online payments)

	<5%	6-15%	16-25%	25-50%	>50 ¹²	N.A.	TOTAL
2001	11	2			1	4	18
2002	11	2			1	4	18

Source: STAR consolidated research

All but one of the companies examined, use call centres for customer support. The services provided mainly include pre-sale and post-sale support to online and off-line visitors (see Table 6). The following trends with regard to the scope and operation of call centres were evident:

- Some companies use several call centres for different purposes (e.g. for providing assistance to web visitors and for providing information and making reservations);
- Often, call centres are scattered around a country so that calls are routed to the first available position;
- Overall, the role of call centres is twofold: they act as a distribution channel (promotions, marketing, and sales by phone) as well as a back office for web-based transactions (ticket issuing, invoicing, payment collection over the phone, etc.).

Table 6 Customer services provided by the call centre
(multiple answers allowed)

	Promotion campaigns	Pre sale services (Information, etc.)	Post Sales services (Hot lines, etc.)	Support to web visitors
Number of companies	3	18	15	10

Source: STAR consolidated research

¹² The one company reporting a share in revenues of over 50% from online activities is known to have adopted a low-cost and 'agentless' sales business model.

3.2. *Drivers to e-CRM*

Based on the STAR study, three interrelated factors appear to be key drivers to e-CRM adoption:

- The need to maintain direct and interactive communication with final customers and to offer value-added products and services, targeting both individual travellers – in order to solve problems and simplify procedures - as well as business customers - aiming at cost savings and more efficient travel management. The set up of the website addresses this purpose. As one interviewee put it '*the website is a service. It serves research prior to booking and also provides information after booking.*'
- Better service to customers in profitable business areas offers opportunities for additional revenues from existing sources and also generates new sources of revenue. Therefore, by creating an innovative way to gain customers and persuading them to purchase products and services online directly from the company, a supplier in the industry can bypass intermediaries in the value chain and thus increase its revenue base.
- Some companies also view e-CRM systems as offering them the potential to reduce internal information processing costs. For example, certain low value added tasks (i.e. creating and updating customer's database) can be passed on to customers who can create and update their personal profiles. The latter are stored and managed by an efficient e-business technology system designed to support CRM.

Overall, as discussed in Section 2, competition within the travel and tourism industry is becoming more and more intense. The Internet is gradually gaining ground in the travel and tourism industry as the e-channel that offers customer service and a more targeted distribution of information at a lower cost. These trends call for new business models to be developed by travel and tourism companies for managing their relationships with intermediaries and customers. Some players with great confidence that the application of new technologies will offer them many opportunities, have already embarked on implementing e-business methods in managing their relations with customers. Others feel they need to be followers, as they do not want to lose ground against their competitors. Thus, keeping up with the new business environment appears to be a major challenge. However, maturity in the market and a certain volume of customers are necessary to make the Internet channel a worthwhile investment.

3.3. *Functional changes associated with e-CRM adoption*

The majority of companies in the sample were in the process of unravelling their e-CRM development plans and were not prepared to comment on the changes in the functions of their organisation as they had not been in a position to fully exploit the expected opportunities. The statement '*e-business is changing our job more than GDS did*' focused more on the potential dynamic of e-CRM than on the changes associated with its current deployment. A message that came mainly from the responses of suppliers in the value chain with respect to the functional changes associated with the introduction of e-CRM methods was that e-business introduces an additional sales channel alongside the traditional ones. E-business methods enable a company to grow without developing its physical distribution network. At the same time, all companies reported that customer relations have become stronger and more 'personal' with the use of e-CRM, as the technology allows them to contact customers individually in a fast and cheap way and to receive frequent feedback from them.

3.3.1. Gaining and retaining customers

Table 7 summarises the interviewees' responses to alternative e-business methods for identifying, gaining and interacting with customers. These may include online promotion campaigns, maintaining a customer database, customer profiling, setting up interactive questionnaires, and tracking the choices of customers while they surf on the website. The responses show that companies are particularly keen on maintaining customer databases and less keen on setting up interactive questionnaires, which as suggested are often treated as a nuisance by the customers.

Table 7 Methods for e-CRM based customer identification and interaction services (multiple answers allowed)

Online promotion campaigns	Customer database	Customer profiling	Interactive questionnaires	Customers choices tracking
11	14	7	4	9

Source: STAR consolidated research

The ability to collect, combine, maintain, and process data from a multiplicity of sources is central to gaining a richer view of customers, their needs, and the value they can generate for the company. Bringing together data from different sources is a critical task for travel and tourism companies that wish to develop a better understanding of their customers. A model that has been proposed for the evolution of customer databases involves three stages (KPMG, 2001): In the first stage, data are stored in electronic format by each department of the organisation and/or by type of application without the possibility for cross-checking and information sharing. The next stage involves the

development of 'links' between the different databases so that when a customer's record is updated in one system, it automatically passes the information onto the others. The third and more advanced stage involves the development of a data warehouse system which has sufficient intelligence to perform more complicated tasks such as analysing customer data and assessing the value of a customer.

The vast majority of companies in the sample still maintain different databases of customer data and are thus found at the first stage while a few are in the process of migrating to the second. Customer databases are regularly used for sending e-mails and notifying customers of future promotions, new routes, etc. Only two companies reported that they are in the process of establishing a data warehouse system. In one company, the system when completed will be like *'a single point of truth'* and will consist of two interrelated databases: one for the front office which will support marketing, sales, and the call centre agents, and one for the back office that will assist in data management. For this particular company it is a choice that is believed to be in line with its overall image and business strategy, which seeks to capture the highly valued business customers.

There are a number of reasons for the lack of consolidated customer databases. First, at the time the research was conducted, most e-CRM projects were in the phase of development or approaching completion and, therefore, consolidation of databases was underway. The recent wave of mergers and acquisitions in the industry also has hindered the maintenance of consolidated databases since players each hold their own isolated customer records which need to be brought together. An additional inhibiting factor, especially for large companies is that consolidation of customer databases requires a long time and significant financial resources due to the high degree of fragmentation of existing data sources. As one tour operator put it *'this [focusing on customer profiles to develop new products] implies a huge work of bringing together our booking system, the customer knowledge database, and the database of our website. We have information on six million customers even if only two million are active users [buy a product] each year.'* Similarly, it is a substantive task for a company using many different distribution channels to have a coherent view of customers' attitudes and buying habits since it needs to put together different databases often set up in legacy ICT systems and software.

With regard to the application of customer profiling the experiences are mixed. One firm interviewed argued that it has the technical capability to create customer profiles but that this is not a top priority. Others said that the information collected from customers is not as detailed as it should be to allow the company to target specific customer groups or to proceed with one-to-one marketing campaigns to the most important customers. A third group of companies has set up a web facility whereby customers can create, update and modify their own personal profile, get information about their travel records, select the type of information they wish to receive, the frequency and the preferred medium (e-mail, SMS, WAP, printed newsletter, etc.). One passenger transport company stated that it implemented a customer loyalty programme based on its e-commerce activities on the web. Customers wishing to enjoy the benefits of this programme could apply for a subscription card or a 'ticket book' online. Their data would then be stored in the

company's customer database and would be used to offer them information about discounts, company news, etc.

Surprisingly, only one company stated that it had to pay increased attention to methods for the security of personal data on the Internet. It appears that the effectiveness of customer profiling as a tool for customer identification and interaction also depends on the characteristics and attitude of the customer base. Often customers are less interested in the other services offered online (newsletter, promotions, additional information regarding destinations, etc.) which are very useful to the company in order to acquire customer information.

Customers' choice tracking is a technical function available at most web sites. When used properly, this can bring in informative data about how the site(s) are browsed, where the train of concentration breaks down, how the offers can be improved to prevent this, etc. As one interviewee put it *'it's like being able to watch their [customers'] eyes while they look at our brochure'*.

Table 8 lists some frequent e-business methods used by companies to retain loyal customers. The least applied and least effective method (according to some interviewees) is the creation of communities of interest. Among the most popular methods are the offer of special conditions to online customers and the personalisation of communication with the customer. The latter usually takes the form of e-mail alerts and SMS that provide information to the customer.

Some supplier companies in the passenger transport and accommodation segments do offer special prices to online customers as a way to attract more customers. For example, a passenger transport company in the UK charges £10 for a paper-ticket booking and a non-e-business check-in claiming that *'the message to use the net will soon get heard'*. Others feel that such a policy contradicts their business principles and that web customers should not be given particular advantages. Still, a supplier company whose main line of business is in hospitality management reported that 90% of all bookings are made directly by calling the hotel. Most of the rest are made through the booking centre despite the fact that, according to company estimates, it costs 2.5 to 3 times more than booking over the Internet. The company's objective therefore is to direct customers to Internet booking (15 to 20% of bookings over the Internet by 2005). Along the same lines, a large European transport company plans to launch a pricing policy whereby the earlier a booking is made, the cheaper the price of the ticket. The idea is that customers who wish to book journeys early will seek to benefit from the advantages offered by the Internet or the call centre rather than visit a physical point of sale to make their purchase. Also, a travel agent specialising in business travel is looking for ways to change its pricing policy for Internet customers and instead of a straight commission, to start charging fees based on the number of completed transactions.

It might be expected that the problem of security of payments would be raised by interviewees. However, only one company raised this as an issue pointing out that *'a totally secure environment is necessary since customers are still dubious to part with money and prefer to contact the Call Centre to finalise bookings.'*

Table 8 Methods for e-CRM based customer retention, fidelity and/or acquisition (multiple answers allowed)

Creation of communities of interest	Offer of special conditions	Personalisation of customer communication	Use of customer feedback	Personalised customer support
2	10	10	7	6

Source: STAR consolidated research

3.3.2. Support customer information needs

Interviewees agreed that Internet travel websites provide richer and more-up-to-date information than any other physical distribution channel. A typical travel website offers more than a paper brochure as it contains pictures, videos, informative access plans and other information on destinations. Thus, for the majority of companies the web serves as a primary source of information and marketing tool for their services. E-catalogues are cost-effective, can be more detailed than paper catalogues, and are friendly to use even for customers with basic Internet skills. Some interviewees expressed the view that soon they will replace paper-printed brochures and time schedules. Only one company reported that it created a website because it is fashionable, not because there was a real demand in the market or because it was cost-effective for the company. The same company, however, has put a lot of effort into the development of an Enterprise Resource Planning (ERP) system, which is regarded as a strategic objective of the highest priority.

Nevertheless, the extent to which all this available information is effectively used depends on the type of customer since different types have different needs and ways of satisfying them. Business travellers, in particular, prefer to rely on their assistants and junior staff since journeys are often quite complex and they do not book themselves or make use of the exhaustive information available. On the contrary, individual customers are 'one-click-away' from accessing travel information and can visit the web or call the company's call centre five times in a row for the same reason without queuing.

One company also offers customers the opportunity to access an online list of Frequently Asked Questions (FAQ) collected, stored, and updated on a regular basis as a way to avoid congestion at the call centre.

3.3.3. Packaging and 'bundling' of services

Table 9 lists the responses of companies in the sample with respect to possible changes associated with the introduction of e-CRM methods in the packaging or 'bundling' of services. All supplier companies in the sample have had the opportunity to enlarge the type and amount of information provided on the web by setting up partnerships with other actors in the value chain (mainly tour operators, traditional and new web-based travel agents) or independent companies (e.g. Amazon bookstore for ordering travel books). As

one tour operator put it *'a customer can order side products on the web, such as travel books, and insurance, which he [or she] cannot do easily in the shop because employees' main task is to sell travel services.* Other actors also benefit from service bundling as a way to generate extra traffic, and possibly revenues. A passenger transport company reported that it could further broaden its service offerings with dynamic packaging functionalities on the web¹³ but the implementation of this idea requires a sophisticated ICT infrastructure on the part of tour operators which do not yet have strong ICT systems to support it.

With regard to pricing, some companies offer price estimates instantaneously on line after a relevant request from a customer. In the business travel segment, the situation is more complicated. Travel agents have a certain know-how in putting together complex travel products (tickets and holiday packages) where prices vary a lot. This tacit know-how cannot easily be transferred to web transactions. Having said that, it is argued that in mature Internet markets, a "web-savvy" type of traveller has emerged. As pointed out by an interviewee *'this type of customer does demand complex combinations about which he [or she] knows as much as the travel agent. This sort of web transaction requires concentration from the user, and may have a high value for the travel company'.*

An additional difficulty raised by some respondents with regard to the pricing of services is the legacy of the GDS systems which offer tailored-made prices per type of customer and not per type of service.

Table 9 Methods for "packaging" or "bundling" of service and product offerings (multiple answers allowed)

Increase range of options on service characteristics	Type and amount of information	Pricing and mode of payment	Alternative delivery options
4	6	7	5

Source: STAR consolidated research

3.3.4. Ordering and payment

As already pointed out, most interviewees said their companies offered the options of online ordering and payment on their websites. These services, however, have not been particularly popular among customers, as the current small percentage of companies' online sales as a proportion of total revenues indicates.

Some companies expect that customers' attitude in purchasing online will change once e-ticketing and other automated procedures become more widespread. However, the experience so far suggests that ordinary travellers are price-driven and have limited

¹³ The user would assemble the package him or herself online by picking a flight, accommodation, car rental, and any other service necessary for its trip.

loyalty. It was suggested that when purchasing online, customers expect to receive a discount that traditional distribution channels are not able to offer. After selecting destinations, places, accommodation, etc, customers proceed to compare prices. For this purpose, they visit a number of travel agencies looking for the 'best deal'. In this way, the online cost estimate is just an additional estimate to the ones collected in the traditional way. It is estimated that about 50% of potential online buyers stop after obtaining the cost estimate on the web.

3.3.5. Post sales service support

Reporting services and confirmations of bookings are available to customers mainly by e-mail alerts or through the call centre. Most companies do not offer call back services as a way to encourage direct online bookings. The research also identified some obstacles to the use of e-business methods for customers' post sales support. These most likely relate to the fact that companies' back office systems remain highly fragmented. For example, one passenger transport company reported that it does not allow changes in reservations to be made online. These must be made via a human operator *'to ensure that things are done right'*. Similarly, another company from the same segment argued that *'putting this all into the front-end was too complex. Returning unused tickets is not possible online. It has to be done at the counter'*.

Due to its dynamic nature, the Internet has the potential to capture customer concerns and frustrations providing companies can act on them and respond effectively. For this purpose, however, they need to have the ability to switch on/off feedback mechanisms, which at the moment they seem to lack.

3.4. Organisational impact of e-CRM adoption

The adoption of e-business methods in customer relations signalled organisational changes in most of the companies in the sample. Some companies established a special department within the organisation. The department usually consists of a working team of people dedicated to set up and maintain the website and the sales over the Internet. The addition of a new sales channel led to the re-organisation of all support functions, as they had to take into account the new distribution channel.

Other companies chose to set up a separate organisation to service online sales. The idea was that such an arrangement would allow them to focus more quickly on what this new channel had to offer and on how to maximise its potential. A passenger transport company enjoying a monopoly in its national market stated that it chose to create a corporate spin-off to manage the development of Internet activity, as this was the only way to speed things up and to by-pass a number of institutional barriers (limits on external recruitments, cash pressures on standard corporate functions, trade union power, etc.).

The impact of e-CRM adoption on business organisation also depends on the type of activity a company is engaged in. A company engaged in more than one line of business that seeks to have centralised management of its customer data base needs to have data administration personnel throughout its operations. A company involved in hospitality management and complementary tourism services reported that *'hotel managers now have access to the central database and update it with information regarding room availability and tariffs. Co-ordinators have been nominated in each line of business entrusted with the task to communicate and collaborate with the Internet team.'*

Although one might expect that changes in the structure and operation of the call centre (for example, an increase in the call centre personnel) would feature heavily in the responses of the interviewees, this was far from being the case. The one company reporting a slight increase in the personnel at the call centre attributed this to the increase in the number of destinations and the overall expansion of business activities.

Similarly, outsourcing of ICT services and other activities is not as popular in the travel and tourism sector as one might expect. This can partly be attributed to the fact that the majority of companies examined are large operators often involved in more than one line of business. Only two companies stated that they outsource the development, hosting and maintenance of the website to an Application Service Provider (ASP), arguing that they lack in-house expertise and wish to avoid the heavy capital expenditure it entails. One of these two companies also reported that in 2000 the management of the customer database was outsourced to a communication agency because *'the organisation was more focused on [selling] products and communication was seen as a secondary result which could be outsourced.'* Today, this organisation has brought database management back in-house and is able to perform intelligent analyses of customer data based on a variety of socio-economic and purchasing criteria.

Where the adoption of e-business methods did have a significant impact was on the relations with intermediaries. There was a consensus among companies irrespective of their primary line of business, that, to a limited extent, e-business and the Internet are reducing intermediation costs which are the most critical cost factors in the travel and tourism industry. Interviewees expect that benefits from cost reductions will grow in the years to come. For tour operators and passenger transport companies, in particular, (airlines, bus and railway companies) e-business gives them the opportunity to reduce intermediation costs, improve margins, and use marketing leverage more efficiently.¹⁴ Supplier companies and tour operators argue that they pursue a strategy of wider distribution and develop new online sales channels because they generate more traffic for their services and thus boost sales. At the same time, traditional intermediaries complain about this 'new' competition from suppliers while web-based travel agencies – the new e-mediaries – make their way into the travel and tourism business aiming to compete on equal terms with service suppliers. Web-based travel agencies are also supported by competition law, which prohibits suppliers from exhibiting preferential treatment in favour of their own online or affiliate sales channel against their competitors.

¹⁴ However, as pointed out by an interviewee, other costs for example, related to educating customers in the e-contact methods and changing customer behaviour, must be increased and grow over time.

The new form of competition generates conflicts with traditional travel agents and resellers of travel products and services who see these developments as a direct threat to their business and revenue base. Travel agents and resellers are the main distributors of tourism packages. They usually have strong contractual partnerships with tour operators and can influence customer choice because they are in direct contact with them. Some interviewees argued that the value-added offered by travel agents will never become obsolete since complex products will always require composite information and expertise that ordinary travellers rarely have. Therefore, they will always rely on travel agents for advice and reassurance.

Tourism suppliers and tour operators tend to use three main distribution channels: a direct one (off-line and online sites), a semi-direct one (affiliated websites), and an indirect one (web-based travel agencies such as Travelocity and Expedia). Trying to keep these different channels operating in parallel appears to be a major challenge for actors in the industry. As one interviewee from an airline company put it *'the basic problem with our company is that it needs to maintain a good relationship with travel agents because they represent 70% of our revenue sources. Adopting e-business methods might increase our direct sales and possibly profits, but at this moment a 'balance' with travel agents must be maintained'*. Also, within an organisation, personnel conflicts may arise when a sales force that has had a proportion of its income made up of sales incentives, jobs becoming obsolete as a result of the company's strategy to encourage customers to use a different, more convenient, sales channel. Overall, distribution through the Internet requires a clear vision of the different distribution channels and good sales management to ensure the motivation of a company's employees and resellers.

Despite the conflicts with traditional intermediaries, interviewees admit that e-business methods open up new opportunities for their business, the most important of which is the creation of a new marketing and sales channel operating over the Internet. Tour operators appear to have particularly benefited from online operations. As pointed out by an interviewee *'It [the Internet] creates new opportunities: we sell directly on Internet to new customers; we are looking at indirect distribution on the web and maybe in the real world with large retailers. Some customers look at our products on the Internet and buy in our agencies, thus generating traffic. Others buy directly on Internet, but would not have gone to an agency anyway'*. Others, refer to the flexibility e-business technologies provide to their companies. An airline company pioneer in online sales that has adopted a low-cost, simple-product business model argued that *'e-CRM offers the opportunity to alter prices according to availability of seats is a more efficient way than conventional means. Passengers can be diverted through pricing and pointed out other ways of making the same journey cheaper – e.g. on other flights and/or days'*.

3.5. Overall impact on performance

The representatives of the companies that took part in the survey were unanimous that it was too early to assess the impact from the introduction of e-CRM on their competitive performance. At the same time, they all felt that they benefit from growth trends in the market since through the Internet they address their services to a wider audience and can target more potential customers. The majority of companies (12 out of 18) stated that their customers have indeed increased in number as a result of their companies' presence on the Internet (see Table 10). A German company was able to quantify this claiming that '80 per cent of those who booked a journey over the Internet had not done so in the past two years. This means that we won new customers.' Few interviewees reported the acquisition of new customer segments as a result of their companies' online presence. Of particular interest is the testimony of one tour operator/travel agent who identified a new customer segment: the experienced 'web-savvy' customers who know what they want and seek to get it at the best price available.

Only two companies reported that online sales enabled them to attract customers from other countries. One French company argued that British customers account for 15 to 20 per cent of all Internet customers and that corporate sales of the group in North America, Eastern Europe and Mexico have grown substantially as a result of the company's online presence. Similarly, a Greek airline company reported that foreign customers make the most of online reservations. This is not surprising given the low Internet penetration in the country and the relative immaturity of Greek customers in using the Internet.

Table 10 Increase in number of customers (same type as before)

Yes	No	Not Yet	N.A.	TOTAL
12	1	2	3	18

Source: STAR consolidated research

Table 11 Acquisition of new customer segments

Yes	No	Not Yet	N.A.	TOTAL
9	7		2	18

Source: STAR consolidated research

Table 12 Opening of new international markets

	EU	Non-EU
Yes	2	2
No	11	11
Not Yet	3	3
n/a	2	2
TOTAL	18	18

Source: STAR consolidated research

Although most interviewees stressed that it is too early to assess the impact of e-CRM methods on customer relations, they felt that their companies' performance in relation to customer retention and satisfaction had improved as a result of their online presence. Several companies reported that they conduct regular telephone or web-based surveys to assess customer satisfaction and to get a better understanding of clients' surfing and booking habits in order to improve the functionality of websites and to optimise navigation. However, as indicated by an interviewee, it is essential to analyse and interpret the results according to the different groups of web users - i.e. first time visitors, identified users, regular online customers, etc. - since the benefits for each customer group may change over time. For example, it has been found that the Internet facilitates last-minute sales (one to ten days before departure date) since they require a certain level of interaction that can be achieved only using this particular medium.

Also, the impact of e-CRM on the organisational image of companies was seen as being particularly important. As stressed by one interviewee *'it is very powerful to be able to state your organisation operates 24 hour a day seven days a week.'*

Table 13 Impact on customer relations

	Improved	No impact	Worsened	N.A.	TOTAL
Customer retention	9	5		4	18
Customer satisfaction	10	3		5	18
Organisational image	13			5	18

Source: STAR consolidated research

Overall, despite the current low volume and small size of online purchases, the use of the Internet as a supporting mechanism and not as a substitute for traditional sale channels has the potential to provide a better understanding of the processes by which customers select particular tourism products, thereby allowing more in-depth knowledge of final customers. This can become a powerful marketing tool in the hands of actors in the travel and tourism industry and opens up room for further improvements in customer service. In particular, companies specialising in customised tourism may have more opportunities to experiment with e-CRM. This is because they operate in a higher margin niche market where the volume of passengers' data is likely to be lower thus lending itself to easier analysis of personal preferences of customers.

3.6. *Perceived barriers and future trends*

In their early steps toward e-CRM, the travel and tourism companies that took part in the research identified several barriers and constraints. These mainly related to:

- a) The maturity of the market to which they address their products and services
- b) The financial resources required, and
- c) The prevailing structures and modes of practice within organisations.

European markets vary in their level of maturity and familiarity with ICTs. In some national contexts, certain technologies have gained in popularity compared to others. In Greece, for example, mobile penetration approaches 80% of population while Internet penetration has only managed to exceed 10%. This is the reason analysts believe that m-commerce in the country is likely to be more successful than e-commerce. Still, in many places throughout Europe, companies have to face the poor familiarity of local customers with purchasing online and the fact that they are not prepared to make reservations without a human interface.

An additional inhibiting factor identified by company representatives was the size of investments required for the introduction of e-CRM given that the industry generally operates with low margins. A customer-focused strategy driven by the use of new technology requires large investments that need to be justified to shareholders and compensated in a reasonable period of time.

Apart from the conflicts that arise with traditional distribution networks of travel agents, a further constraint relates to the prevailing organisational structure within companies. Companies were not always ready to adopt and exploit new ways of doing things. Some interviewees reported resistance to change by some departments, which slowed the adoption process. A minimum level of agreement on a common vision is necessary to get things started and an orchestrated effort is required so that internal conflicts between new and traditional sale methods are eliminated.

Another problem raised during the interviews related to the lack of skills and to the solvency of technology vendors and suppliers. The latter have been criticised for lacking critical technology skills and knowledge of the way the travel and tourism industry operates. An interviewee stated that his company faces this difficulty and may need to develop those skills in-house as a last resort. This finding coincides with the results of a survey on CRM in the global travel industry (KPMG, 2001), which revealed that there are few software-based CRM solutions designed to meet the needs of the travel industry and that, almost without exception, the travel industry believes that technology vendors do not understand how the industry works.¹⁵

Lastly, the complexity of some travel products and the periodic changes in consumer tastes and behaviours emerged as additional barriers to the wider adoption of e-business methods in CRM. As pointed out by interviewees, some destinations or types of travel become fashionable for a certain period of time while travellers' tastes and demands

¹⁵ An alternative explanation found in the KPMG report is that 'the profit margins generally within the travel industry is [sic] prohibitively low for CRM to be applicable'.

evolve over time. Therefore, problems arise as a result of the complexity and evolving nature of customers' tastes, which makes the 'industrialisation' of tourism products a difficult task to handle.

The barriers identified above have made many companies take a step-by-step approach in implementing e-business methods. Such a cautious strategy is expected to take into account a company's identity and image with customers as well as an assessment of possible impacts and results. Although it is acknowledged that e-commerce offers the scope for further cost savings and for deepening relationships with regular customers, some companies in the travel and tourism industry are still reluctant to proceed faster, arguing that their next steps will depend on the market and industry circumstances. By way of an example, particular reference was made to the dramatic events of 11 September 2001, which marked a severe downturn in international travel and tourism traffic.

Despite some scepticism, the majority of companies responded positively as to whether they intend to extend e-business in the organisation within the next two years (See Table 14). An argument put forward is that *'what is acceptable by e-commerce methods now, will expand as passengers get used to, and confident with the medium so this may present scope for expansion'*. Others considered further expansion of e-business initiatives to be a strategic choice for their companies as to the way to become leading players in the online market. Only a small number of interviewees argued that such plans fall within normal business practice.

Table 14 Plans to extend e-business in the organisation within the next two years

Yes	No	Not sure	N.A.	TOTAL
11	1	2	4	18

Source: STAR consolidated research

The extent and scope of future e-business initiatives varied depending on the sophistication of existing e-CRM methods employed by a company and the type of market it addressed. Three sets of future e-business initiatives were identified. The first concerns the proliferation of existing services and the development of new web-based applications for CRM. Examples given during the interviews included:

- Improvements in the structure of the website;
- Increase in the company's visibility by establishing cross-links to other sites;
- Establishment of customer loyalty programmes;
- Establishment of customer profiling, interactive questionnaires;
- Mailing campaigns targeted to most frequent customers;
- Launch of web-based promotion campaigns and competitions with free or reduced tickets awarded to winners;
- Online provision of travel information for popular destinations (maps, sightseeing info, restaurants, etc.);

- Increase in the range and number of tickets available online;
- Increase in the range of options for customers purchasing online (e.g. opportunity to choose seat, meal, etc.).

The second set of future e-business initiatives included the extension of service offerings to individual and corporate customers. Examples in this category include:

- Establish business-to-business transactions with travel agents;
- Expand e-CRM applications to cargo services;
- Use interactive digital television (iTV) and mobile devices (WAP services) to expand services offerings;
- Offer Internet services on board.

The third set of initiatives concerned the extension of e-business practices to back office functions. The automation of back office operations is of paramount importance for companies to realise productivity gains. This category contains remarkably few initiatives, which aim to improve internal data management. These include:

- Creation of an internal search engine linked to the booking system of the company;
- Better tracing of customer navigation patterns on the website.

The above findings indicate that although the majority of surveyed companies value e-CRM and have started to commit resources to relevant initiatives, few companies have been engaged in mature, long term planning. A lot remains to be done for companies to realise the full potential of e-CRM in the travel and tourism industry.

4. Conclusion

The STAR research findings indicate that companies in the travel and tourism sector are just beginning to experiment with e-CRM applications and to explore the business opportunities they entail. So far, these have remained largely untapped as witnessed by the fact that traditional sales methods still account for over 90% of their revenues. Some companies are pioneers in adopting e-CRM solutions, while others feel they must follow as they do not want to lose ground against their competitors. The competitive pressure to keep up with the new business environment appears to be a major factor driving e-CRM developments in the industry.

Traditional and new players in the travel and tourism industry see the Internet more as an efficient tool of communication and interface with customers than as a fundamentally new way of doing business. The vast majority of companies interviewed reported that any functional changes brought about as a result of e-CRM solutions were essentially extensions of existing business practices to new sales channels. As one interviewee put it *'95% of normal business criteria apply to this [the Internet] as to other channels, with only a very few nuances, which are web-specific'*.

More maturity of the market and a sufficient number of experienced Internet users are necessary to make the Internet channel a meaningful investment. This is particularly evidenced in the approach of some companies operating in less mature, small markets who do not feel threatened by increasing competition and see CRM strategies as 'peripheral' to their activities. In the words of a well-positioned small tour operator/travel agent *'our ultimate goal is to remain profitable - not to be innovative and spend on services that are only used by a limited number of people. In this sense we are still traditional'*.

The evidence indicates that, despite consumer interest in surfing the Internet, the majority of individual travel shoppers still prefer the personalised service they can obtain from travel agents. Sales to individual customers around Europe remain based mainly on human interaction and the personal contact with the travel agents since customers are often overloaded with information and turn to intermediaries to help them sift through all the different offerings. For business customers the picture is blurred and it appears that expectations about their increased use of online services are rather low. Contrary to earlier expectations that online services would replace human interaction for most technology-minded business customers, the complex nature of their travel arrangements often requires the 'human touch' of an experienced travel agent. At the same time, the interviewees revealed that a new 'web-savvy' customer has emerged who sees the web as a rich information medium, seeks travel information on the Internet, compares prices, and then proceeds to purchase complex travel products online. Leading actors in the travel and tourism industry, including airlines and tour operators, have increasingly started to offer a variety of customer services online and are particularly successful in attracting this customer group.

The availability of services online offers opportunities to companies in the travel and tourism business to achieve cost reductions in operating costs and opens up an effective and direct communication channel with existing and potential customers. Consequently, travel agents feel threatened by the strategic moves of suppliers in the industry to establish direct links with customers. Managing the relationships with the network of independent agents, the purchasing groups, and their own off-line and online distribution networks emerged from the interviews as a fundamental problem suppliers in the travel and tourism industry are facing.

An alternative solution has been proposed that would reconcile the traditional with the new distribution channels and would turn the Internet into an ally instead of an enemy of travel agents. For this to happen, the latter need to understand and value the complementary nature of online selling to traditional business practices. A useful example is that of an online travel site in the US, that has tightly linked its online ventures with its human interface.¹⁶ The company has developed a physical presence with independent franchises across the country. The latter are all linked with a sophisticated CRM software system so that when a customer asks for information on the company's website, he/she is routed to nearest franchise available. In this particular example, the online travel site serves as an accompaniment to traditional travel agents and complements rather than replaces the old distribution channels while generating more traffic for them.

Even with best available scenario in mind, it is too early to assess the impact of e-CRM methods on CRM and on companies' competitive performance. Early signs emerged from the interviews that suggest that e-business technologies have facilitated a shift in the focus of companies from supply to demand while customer retention and satisfaction are shown to have improved as a result of companies' online presence. However, there are no signs contradicting the predictions that initial investments in e-business are not likely to be balanced by increased revenue at least in the short to medium term (EITO, 2001).

A starting point for e-CRM implementation in most companies, as revealed by this study, is the transfer of low value-added, data entry-type tasks to customers. However, the real challenge for travel and tourism companies in order to realise productivity gains is the automation of their back office operations. The value of CRM initiatives depends on back-office processes and the flow of information containing important customer data between the front and back offices of a company (EITO, 2001). Such a strategy is essential to allow companies to focus on identifying key customer groups, which have the potential to generate additional profits.

In an industry that began to resort to the power of networks and communication technologies with the introduction of GDS 30 years ago, e-business methods help to transpose existing techniques on to cheaper distribution channels, thus developing sales potential. The main benefits of these techniques depend, however, on the efficiencies they can bring in a supply driven market: managing growth and maintaining stable employee numbers, automate back office/ fulfilment operations, standardise products and operations. The real challenge therefore is not to implement technology-based CRM

¹⁶ Source: 'Travel Industry Uses CRM to Make the Internet an Ally', Information Week.com, 26 June 2002, to be found at www.informationweek.com/792/trave3.htm

solutions but to establish the necessary technological (data-warehouses and customer intelligence systems), organisational (data integration, inter-departmental communication, links with distributors and resellers) and cultural (customer-centred service provision) change within companies that would allow CRM to contribute to productivity and profitability.

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