Changes in the Travel and Tourism Industry Caused by the Internet – Competitive Advantage for the SME Accommodation Sector in Austria?

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Abstract

The importance of information and communication technology (ICT), especially the Internet, in the travel and tourism industry has increased tremendously over the past few years. The travel and tourism area is one of those industries that are able to gain enormous synergy effects from use of the Internet. In fact, tourism is the leading application in the B2C (business-to-consumer) area. Although the slow economy and current political developments have negatively influenced e-commerce, it is still flourishing in the tourism sector. In the travel/tourism industry we are witnessing an acceptance to the extent that the structure of the industry and the way business is conducted is changing. The Internet is not only used for information gathering, but there is also an obvious acceptance of ordering services over the Internet.

The aim of this thesis is to explain the role of the Internet for accommodation facilities from the point of view of industry experts as well as of representatives from the accommodation industry. The Internet as an ICT provides companies with several types of opportunities to conduct their business but also alters the rules of competition within an industry by causing several threats. By regarding these threats and opportunities we define a generic framework which is used to evaluate the SME accommodation sector in Austria. To counteract the threats and to achieve a competitive advantage a firm has to develop a strategy using the opportunities of the Internet. In our framework we distinguish between two value tasks a company has to focus on within its value chain: value creation and the capturing of value to gain knowledge and to influence the value creation process.

The framework is evaluated by an expert survey and a hotel survey. These surveys provide a broad picture of the awareness of accommodation facilities regarding the use of the Internet for their business activities and their ability to gain competitive advantage.

Based on the use of the collected information we identify the strengths and weaknesses and formulate recommendations for decision makers within the accommodation sector to strengthen the position of SME accommodation facilities. In addition, we also derive recommendations for public organizations, marketing groups, and new intermediaries

Acknowledgment

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Chapter 1

Introduction

1.1 Motivation and Objectives

Information and communication technologies (ICTs) and tourism are two of the most dynamic drives of our global economy. As many authors have claimed, tourism must be treated as an information-intensive industry (Poon 1993; Sheldon 1997; Inkpen 1998). Travel and tourism can be defined as an information business, because information is one of the most important quality parameters to support actions for the tourism area as a service industry. In few other areas is the generation, gathering, processing, application and communication of information as important for day-to-day operation as it is for the travel and tourism industry. In fact, tourism is a hybrid industry. More than other services, tourism services are increasingly dominated by information. However, the core product is in almost any case a physical product.

The tourism industry is steering towards a promising future. Growth and change are key words of today's development. According to the WTO (World Tourism Organization), in 1995 about 500 million travelers packed their suitcases causing a growth of 70% compared to 1985. For the year 2010 the WTO predicts about 1 billion tourists (Dettmer 1998). The tourism area is one of those industries which are able to gain synergy effects from use of ICT (Sheldon 1997).

The Internet as an information and communication technology is a perfect platform for companies within the industry to bring information about their products to the customers all over the world, in a direct, cost-minimizing and time-effective way. From the first reservation systems in the 1950s to the tourist information systems like TIS and Gulliver of the 1980s (Werthner 1995; Werthner 1996; Werthner and Klein 1999) to the enormous number of current Web activities, the tourism industry has always been one of the pioneers by using new communication and information technologies. The Internet is a possible instrument to change the structures and processes within the tourism industry. New value chains and value systems are emerging and the players within the industry have to redesign their strategy under the power of ICT. A competitive strategy is based on the defense or creation of competitive advantage. This realization represents the background and context of this thesis. Despite the fact that online travel sales are now a substantial and growing

proportion of total sales in one of the world's largest industries, there still exists a lack of comprehensive literature on the emerging market structures in this sector and little or no analysis on the role of competitive advantage through the Internet. The aim of this research is to explore this phenomenon through an analysis of the market structure and determinants of competitive advantage for the SME accommodation sector in Austria. The main questions for our research are:

"How can companies position themselves under these new conditions? Will there be significant changes in the industry like new market players, new distribution chains? What are the implications for the hotel sector, what are the opportunities and what are the threats on the way towards a competitive position? Will they be able to define their own strategies to gain competitive advantage by the use of the Internet or will their strategy be driven by the industry?"

To provide answers to these questions, the objectives of this research are given as follows:

- to develop a framework through which competitive advantage can be systematized and evaluated for eCommerce solutions,
- to consolidate the business values of eCommerce to the accommodation sector, and
- to explore the way that competitive advantage of SME accommodation facilities can be enhanced.

Obviously the research will be subject to several limitations; in particular we can identify three main aspects:

- Geographical and industry sector limitations: The research will focus on the SME accommodation sector in Austria that is already using the Internet for daily business. However, the results could be representative for and applicable to other European countries with similar market structures.
- The identification of the defined threats and opportunities followed from studying the literature, and cannot be considered to be comprehensive.
- Furthermore, we are not focusing on quality parameters (e.g., the content of a homepage) of the used tools and services. Our research tries to answer the question, whether the use of a tool or service provides competitive advantage or not.

1.2 Methodology

All dimensions of an organization and an industry have to be re-examined in the light of power ICT applications. The Internet provides several types of opportunities for companies to conduct their business but also alters the rules of competition within an industry by causing several threats. By considering these threats and opportunities we define a framework for competitive advantage.

In our framework we distinguish between two value tasks a company has to focus on within its value chain:

- the *value creation*, which also includes the extraction and adding of value to services and products,
- the *capturing of value* to gain knowledge and the ability to influence the value creation process.

The ability of companies to create or capture this value is an essential success factor for their competitive advantage. The research method we apply is to generate a number of questions corresponding to these threats and opportunities. Based on these questions we discuss the developments in the SME accommodation sector in Austria. This dissertation is divided into three major parts (see Figure 1).

In the first part we use the strategic concept of the five competitive forces (Porter 1985; Porter 2001) to analyze an industry. This market-based view provides an overview of the developments and threats caused by ICT within an industry, in particular by the Internet. To counteract these threats of the Internet and to achieve competitive advantage, a firm has to develop a strategy by using the opportunities of the Internet. The basic unit of competitive advantage is a discrete activity, which adds, creates, or captures value to a product or service. In this part we define several opportunities and activities a company can use to gain a competitive position. This is primarily based on the Logics of Value defined by Akkermans (Akkermans 2001; Gordijn and Akkermans 2001).

In the second part of the thesis this framework has been applied to the SME accommodation sector. We have generated a number of questions corresponding to the identified threats and opportunities and evaluated these questions through online surveys in the second part. First, we ran an expert survey with Austrian travel and tourism experts. On the basis of this expert survey we designed an online survey within the industry (the accommodation sector in Austria) to analyze the changes in more detail and within the day-to-day business of the industry players.

Finally, the results of the surveys supplied us with a comprehensive overview of the changes within the SME accommodation industry in Austria caused by the Internet. In particular, we looked at the capacity of these facilities to gain competitive advantage by using the Internet and defined recommendations for players within this sector.
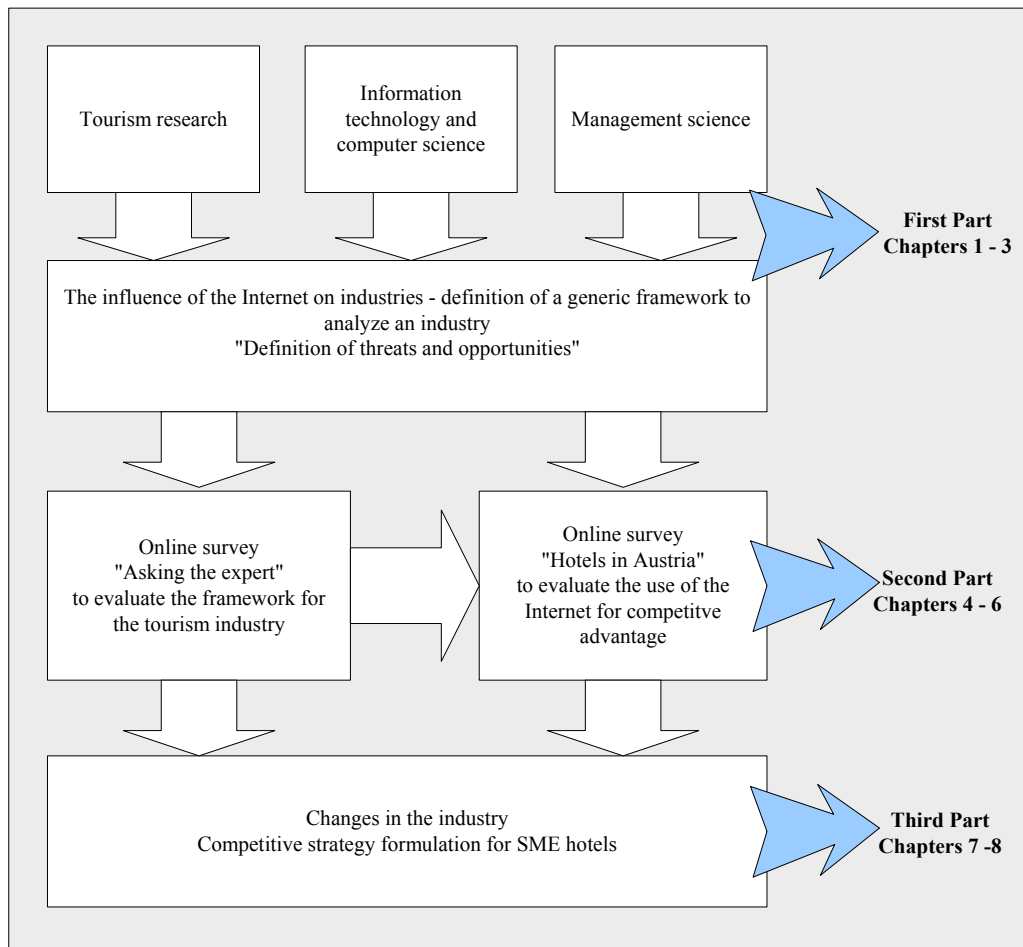
Figure 1. Research framework

1.3   Organization of the Thesis

As already illustrated in Figure 1 the thesis is divided into eight chapters. *Chapter 1* introduces the reader to the thesis, its background, purpose, set of goals, the method employed and a short overview of the state-of-the-art in eTourism. The area of eTourism has to be regarded as a multi-disciplinary scientific field, combining travel and tourism research, information technology, and management science. Thus, it is essential to introduce the reader to the research area.

The influence of ICT on enterprises and their value chains is discussed in *Chapter 2*. ICTs have been and still are irreversibly changing the business world. Beyond the business world, ICT will also change the forms, processes and often the substance of firms and organizations. ICT is critical for the implementation of an organization's strategy. The chapter describes the Internet as such information and communication technology and its influence on organizations. We will also give a short overview of the development and the use of the Internet illustrated by some figures and tables. The chapter also defines our

understanding of the digital economy and terms like eCommerce and eBusiness for the further use in the thesis.

Chapter 3 contains the first main part of our study in which we define a theoretical framework for the evaluation and implementation of a competitive strategy in eBusiness by extending Michael Porter's Model of Competitive Advantage (Porter 1985; Porter 1995; Porter 2001) and using the Logics of Value concept defined by Hans Akkermans (Akkermans 2001). In this chapter we identify generic threats caused by the Internet and several general opportunities provided by the Internet.

In *Chapter 4*, the travel and tourism industry is outlined and it is shown that the industry is of major importance to the economy. We define and look at the key players and the structure of the tourism market. A major part describes the travel and tourism industry as an information business and the influence of ICT on the industry.

Chapter 5 provides an overview of the accommodation sector, in particular in Austria. We use the framework defined in Chapter 3 to identify eight specific threats and nine specific opportunities for the accommodation sector.

These threats and opportunities are used in *Chapter 6* to design an expert survey with travel and tourism industry experts in Austria. This survey provides a comprehensive overview of the implications of the Internet from the point of view of the industry experts. Then, the results of the expert survey and the threats and opportunities are evaluated through an online survey within the accommodation sector in Austria to give us a detailed and broader picture of today's developments within this sector.

In *Chapter 7* we investigate which eBusiness strategies hotels and other industry player could and should use to be successful in this new environment and we derive recommendations for practice and theory.

Finally, we close this thesis with the conclusions in *Chapter 8*.

1.4   State-of-the-Art in eTourism Research

This section analyzes the development of information and communication technologies in the field of travel and tourism over the past years and tries to give a short picture of the present research. From the first Central Reservation Systems / Global Distribution Systems (CRS/GDS) of airlines to Web-based Destinations Management Systems (DMS) in the 1990s, ICT has always played a major role in the travel and tourism area. It is surprising that academic research in the field of ICT and travel and tourism, which we call *eTourism*, has existed just for a few years. Still today, only a small number of books exist dealing with this topic; articles are spread over different fields with their own journals and conferences. But for about 10 years this has been slightly changing. The number of conferences and workshops is increasing, e.g. the International Conference on IT and Tourism, ENTER, is now in its eleventh year. Also international associations and bodies start to work on the topic, and a special federation – IFITT (International Federation for Information Technology

and Tourism) has been founded to co-ordinate the activities in the field of eTourism. eTourism reflects the digitalization of all processes and value chains in the travel and tourism industry. It includes eCommerce and applies ICTs for maximizing the efficiency and effectiveness of the tourism organizations.

eTourism unites three distinctive disciplines, namely (Buhalis 2002):

- business management,
- information system and management, and
- travel and tourism.

Therefore, research in eTourism has to consider a multi-disciplinary scientific field, combining *travel and tourism research, information technology and computer science* and *management science* (see Figure 2).
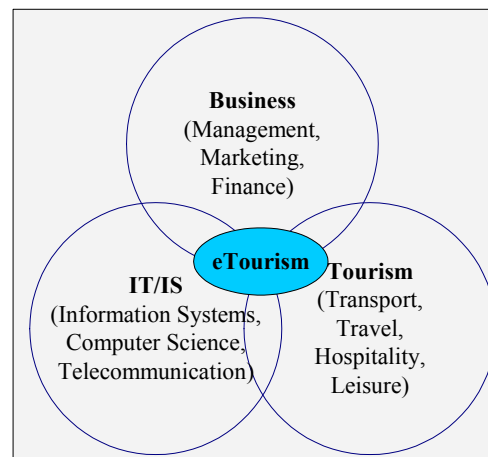
Figure 2. The eTourism research domains

There exist several well established areas of research within the tourism and travel area: decision-making and tourist behavior, tourism demand forecasting, gender in tourism, planning and communities, urban tourism, theme parks, sustainable tourism or eco-tourism, marketing and service quality, and tourism as it affects indigenous peoples. The literature mainly consists of many international journals that are specialized in these topics. A very comprehensive overview of the most important journals in this field is provided at the website of Alistair M. Morrison (Morrison 2002) from Purdue University, USA.

Two of the best known journals are:

- *Annals of Tourism Research* is a social sciences journal focusing on the academic perspectives of tourism. While motivated for a balance of theory and application, Annals is dedicated to developing theoretical constructs.
- *Tourism Management* is one of the leading international journals for all those concerned with the planning and management of travel and tourism. The journal takes an interdisciplinary approach and includes planning and policy aspects of international, national, and regional tourism as well as specific management studies.

The importance of and necessity for using ICT in the travel and tourism industry is a relatively new subject in the literature. Following the general routes of ICT penetration into business environments, several authors have demonstrated the benefits of ICTs for the operation of tourism enterprises (Poon 1993; Sheldon 1997; Inkpen 1998; Werthner and Klein 1999; Buhalis 2002; O'Connor2002). The book *Information Technology for Travel and Tourism* by Inkpen (Inkpen 1998) presents a detailed explanation of the major systems and new technologies used within the industry. It discusses many travel systems, including an analysis of all four major GDS, several hotel distribution systems and tour reservation systems. The strategic use in the distribution of travel products is an underlying theme that runs throughout the text. It is outlined in the work and research of Poon (Poon 1993), Sheldon (Sheldon 1997), Inkpen (Inkpen 1998), and Werthner (Werthner and Klein 1999) that ICT has become the essential competitive factor in the tourism industry.

The Internet, being such an ICT, influences every part of the tourism network. It enables each existing player and also new ones to enter in contact with other players of the value chain and especially with the consumer. This will affect the whole industry, its value chains, and the way the companies do their business in the system. The most important changes will occur in these sectors: The Internet is a possible instrument to close the gap between local suppliers and the demand side (Werthner and Klein 1999). One of the standard books in this field of research is the book *Information Technology and Tourism - A Challenging Relationship* by Werthner and Klein (Werthner and Klein 1999). The book examines the interdependence between trends in tourism and developments in information and communication technologies. It focuses on changes along the tourism value chain and addresses topics such as tourism in a digital or network economy. The author's line out that, for example, new players like Expedia, Tiscover, or Travelocity appear on the market recognizing tourism as an information market that offers them new business opportunities. The book also describes some examples of IT applications in travel and tourism, and discusses topics like business strategy and IT impact, and management implications.

Regarding journals, *Information Technology & Tourism*, a journal published by Cognizant is the first scientific journal dealing with the exciting relationship between information technology and tourism. Advances in the use and development of tools, technologies, and methodologies that have facilitated the efficient netting of information and communication systems in travel and tourism are covered by this journal. Information Technology & Tourism aims to contribute to the process of theory building, and hence to the advancement of research and scholarship in this growing field. As a multidisciplinary journal it is the dialectic bridge between information technology and tourism research where both fields may influence each other. Information Technology & Tourism focuses both on academicals perspectives and practical applications. It features empirical case studies as well as technical-theoretical papers examining tourism from an IT point of view and IT from a tourist point of view — a treatment quite attractive for researchers in both fields. According to the literature reviewed and topics addressed by the journal Information Technology & Tourism, the following research areas can be identified within the field of eTourism as shown in Table 1.

Table 1. Present areas of research in the field of eTourism

Legal and social aspects of IT applications in travel and tourism	Computer Reservation Systems/Global Distribution Systems
Management information systems	Internet and Web services
Distributed systems - WANs	Multimedia and virtual reality
Graphical user interface design, user modeling, and user acceptance studies	Expert systems, knowledge based systems and intelligent agents, intelligent information presentation
Decision support systems, data mining and knowledge discovery	System architectures, software engineering, and database design
Mobile services	Community, context and location based services
Enterprise modeling	Electronic commerce and marketing
Business engineering	Standardization issues
Statistics, optimization, and simulation	Reverse marketing
Capacity and yield management	Quality control
Computer supported marketing methods	Management / organizational / business and economic aspects - management science
Information and reservation systems	New intermediaries and disintermediation
Dynamic networking and virtual enterprises	Frameworks and ontologies

As for conferences, the already mentioned *ENTER Conference* can be seen as the most important event in the area of eTourism research. ENTER has been established as the international event that brings industry, destinations, and researchers/academics together to debate the role of ICT in travel and tourism and also to develop a vision for new technological solutions required by the industry. It focuses on the above-mentioned research fields, both from the applied and from the scientific side. The conference proceedings are very useful for every researcher in the field. The papers are divided into different sections ranging from system design to strategic management. The growth of the quantity of the papers in the proceedings over the past 10 years is a clear statement of the increasing importance of eTourism and the ENTER conference. In 1996, for example, 25 papers were presented and published in the conference proceedings - in 2002 about 60 papers have been published (Klein, Schmid et al. 1996; Fesenmaier, Klein et al. 2000; Wöber, Frew et al. 2002).

To summarize, we can state that eTourism is bringing together some of the most rapidly developing industries including information and communications technologies (software companies, telecommunication companies, and service providers), the tourism and travel industry (destination organizations, hospitality, tour operators, transport) and different research institutions and areas. ICT and the tourism and travel industry can, or better, have to be seen as an interdisciplinary field. As a consequence, research on the implications of ICT on the industry and its structures is very ambitious and has to consider the ongoing developments in the three main areas of research, i.e. tourism research, information technology and computer science, and management science. These areas will contribute an essential part of the remaining chapters of this thesis.

Chapter 2

New Information and Communication Technologies

2.1   The Information Technology Age

"Innovation is a process that mediates between two streams of human activity. Market and technology develop in parallel and independently, save for a linkage through innovation. Innovation, therefore, is a response to changes in one or both of these streams. As the market changes, firms have to innovate with new products and services, frequently having to seek out new technology in order to accomplish this. On the other side, rapidly changing technology creates new opportunities and sometimes even creates changes in market structure. As a consequence, the more rapidly that stream changes, the greater the pressure will be for firms to be innovative." *(Morton 1991)*

That ICT has a significant impact on industries and single organizations is an already established and well-researched fact. The growing importance of ICT in the daily business of organizations causes several threats and opportunities for them. Markets are changing - becoming faster, bigger, more standardized as well as segmented, and more competitive. ICT has a considerable impact on nearly all areas of company activities, especially for companies operating in information-intensive industries. The new information infrastructure redefines the relationships between buyer, seller, and middleman, allowing new ways of accessing information.

Over the last 30 years the industrialized world has been making a transformation from an industrial economy to an information economy, and for the next several decades, information - rather than land or capital – will drive the creation of wealth and prosperity (Parker 1988). ICT has been and still is irreversibly changing the business world. Beyond the business world, information technology will also change the forms, processes and often the substance of firms and organizations. One of the most profound consequences of the ongoing information revolution is its influence on how economic value is created and extracted. We are currently living through a kind of transformation. This transformation has as result, that the basic economic resource, the means of production is no longer capital, nor natural resources, nor labor. It is and will be knowledge (Drucker 1990). Today, more than ever, businesses are using information and ICT to gain competitive advantage. It is quite difficult to define ICT in an accurate and brief manner. ICTs include not only hardware and

software but also the groupware, netware, as well as the intellectual capacity to develop, program and maintain the equipment (Buhalis 2002). For the purpose of this study, we consider ICTs as the entire range of electronic tools that facilitate the operational and strategic management of organizations. Within this work we are using the Internet to analyze the impact and change on the travel and tourism industry.

One of the most important aspects is that ICT drives productivity and profitability (Thompson 1990; King 1998). This is not just the increase in computing speeds and capacities or decrease in computing costs; it is the fact that new ways of using computers and technology highly influence the existing business processes and value chains in many industries. Computing devices get smaller, cheaper, and more powerful, moving from mainframes, minicomputers and workstations to personal computers, notebooks and mobile devices. The global economy is increasingly ruled by the technology sector and every industry has been directly altered by it. According to Downes and Mui (Downes and Mui 1998), a few basic principles can explain how the digital technologies have become the most disruptive force in history.

For example: *Moore's Law*. It is named after Gordon Moore, co-founder of Intel and says that*: "Every eighteen months, processing power doubles while cost holds constant."* Every eighteen month, and this since the 1960s, one can get twice as much power for the same price, or the same power for half the costs. *Moore's Law* (see Figure 3) also applies to other aspects of digital technologies including computer memory and data storage devices. The continuous increase of computer power enables new applications and services, which were not imaginable only some years ago. Most experts, including Moore himself, expect Moore's Law to hold for at least another two decades until around 2020. This is the most dramatic rate of sustained technical progress in history. Our environment gets more and more intelligent by technology, we are already talking of *"ambient intelligence"* (EC 1999).
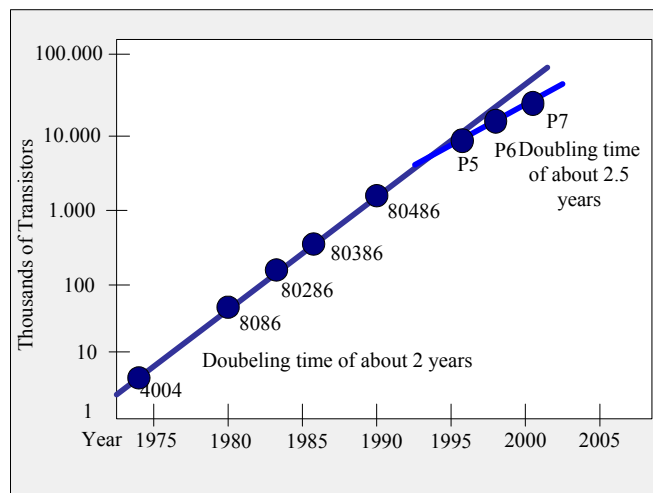
Figure 3. Moore's Law

Another principle that explains the rapid growth of the global economy is called *Metcalfe's Law*. It is named after Robert Metcalfe, founder of 3Com Corporation and states: *"The number of potential interactions for a network with n nodes is n (n-1). Increasing the value*

of n by 1 increases the potential interactions by 2n (May 2001)." The more people use software, a network, or a standard, the more valuable it becomes and the more it new users will attract. In other words, each additional member of a network adds an incremental amount of value to every other member (see Figure 4). The rise of PCs, servers, and e-mail, all communicating over office networks and the Internet, contributed to make *Metcalfe's Law* reality. This has a profound impact on the equilibrium states of the markets. Because users tend to prefer products that many users already have, strong companies tend to get stronger and weak companies weaker. As a result, markets with many competing technologies tend to converge on one product standard.
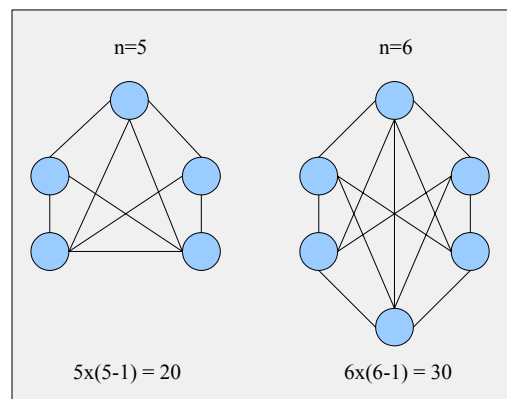
Figure 4. Network effects

The most dramatic demonstration of *Metcalfe's Law* during the digital age has been the explosion of the Internet in the early 1990s. Figure 5 illustrates this by comparing the growth of the Internet to other technologies like television, telephone or radio. It shows how many years the different media needed to reach 50 million users. The figure has to be interpreted carefully, as we have to consider that at the time of the printing press or introduction of the radio, the world was very much different from today (if we look for example at the world's population). But it illustrates very well that time has become an important factor in our more and more globalized world.

We can take a first look at the travel and tourism industry: Airlines with their CRS/GDS give one of the best examples how information technologies can influence an industry and how this was driven by *Metcalfe's* and *Moore's* laws. The development of CRSs started at the beginning of the sixties; the main objectives were to automate seat reservation procedures of airlines. After several changes in the marketplace, the best known CRSs today are Amadeus, Galileo, Sabre and Worldspan (Poon 1993; Inkpen 1998). By using CRS, travel agencies can make reservations directly from their terminals. All CRSs provide the basic functions for the reservation process, such as, product presentation, reservation, fare quote & ticketing, and additional services. Today, nearly 100% of all travel agents in the USA use a CRS system. Technology has changed a whole industry; it has improved the efficiency of production, the quality of service, and has generated new possibilities. The utility of these CRSs is dependent on the number of participants and right now there is a concentration of only a handful of CRSs worldwide. Today, ICT is again changing the structures within the Airline industry. The global alliances such as OneWorld, Qualiflyer, or Star Alliance are only possible because of the coordination that can be achieved through

harmonized ICT systems. On the other hand, low cost airlines appear on the market, only using the Internet and the phone as distribution channels, and forcing old airlines to rethink their strategies. The airlines, for example, are launching Internet portals such as Orbitz (Orbitz 2003) or Opodo (Opodo 2003) to use the new distributions channels.

Years to reach 50 Million Users
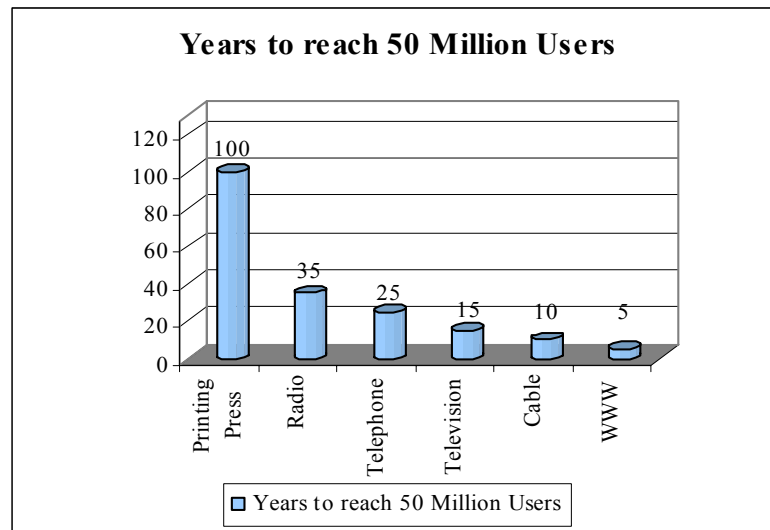
Figure 5. Years needed to reach 50 million users

All dimensions of organizations and industries have to be re-examined in the light of the power of new information and communication technologies (Klein 1996; Bakos 1998; Amit and Zott 2001). In 1984, the 1990s Research Program started, with the aim to examine the profound impacts of information and communication technologies on the structure of organizations.

As a result of this research program Morton (Morton 1991) describes the following major implications:

- First, ICT is enabling fundamental changes in the way work is done:
    - *Production Work:* The physical production is affected by robotics and process control instrumentation. Information production gets affected by data processing computers for standard office tasks, and also knowledge production is highly affected.
    - *Coordinative Work:* Distances can be shrunk toward zero, becoming irrelevant. Also time can be shrunk toward zero and the organizational memory can be maintained over time.
    - *Management Work:* The principal dimensions of management work can be seen in direction and control. Direction as used here is with sensing changes in the external environment, the control dimension of management is seen as the measuring of the organizations' performances.

- Furthermore, ITC is enabling the integration of business functions at all levels within and between organizations:
  - *Within the value chains:* Connection of the intra-organizational units of the company (manufacturing, accounting, marketing, sales department).
  - *End-to-end links of value chains between organizations*: Connection between supplier and customer. Shifting the boundary of the organizations (creating the virtual organization).
  - *Value chain substitution via subcontract or alliance:* An organization subcontracts either a specific task or a whole stage to another organization.
  - *Electronic markets:* Coordination within the organization or among a few organizations gives way to an open market.

- ICTs also have impact on the competitive climate and on the degree of interrelatedness of products or services with rivals.
- Another impact of ICT on competitive issues is the importance of standards. It is important when to support standards and when to try to preamp competitors.
- Successful applications of ICT will also require changes in management and organizational structure. The information technology is a critical enabler of the re-creation of the organization. Organizations have always managed some form of matrix structure, a matrix involving functions, products, and geographic aspects.
- The ICT's ability to affect coordination by shrinking time and distance permits an organization to respond more quickly and accurately to the marketplace. Management has the challenging task of changing the organizational structure and methods of operation to keep it competitive in a changing world.

Already this research showed that ICT is changing the economy and the way business is conducted in various forms. ICTs force companies to find new ways to expand the markets in which they compete, to attract and retain customers by tailoring products and services to their needs, and to restructure their business processes to deliver products and services more efficiently. This affects every aspect of how business is conducted, changing internal processes as well as external relationships, modifying and restructuring entire economic sectors (Kalakoa and Whinston 1996; Gatty 1998; Ghosh 1998; Timmers 1998; Wirtz 2001). Starting around 1990 more and more companies began diverting parts of their capital budgets into computers, software, and communication technologies. Within this context, it would appear that IT should affect the tasks and ultimately the strategy of an organization. Michael Porter (Porter 1985) further suggests that technological change, in particular information technology, is among the most prominent forces that can alter the rule of competition.

This happens because most activities in an organization create and use information and this will be more powerful for industries where information is the key product.

Porter and Millar (Porter and Millar 1985) contend that ICT is also affecting the competition in major ways:

- ICT can change the structure of an industry, and alter rules of competition.
- ICT can be used to create sustainable competitive advantage and provide companies with new competitive weapons.
- ICT enables new business which can be developed from a company's existing activities.

Porter (Porter 1985; Porter and Millar 1985; Porter 1995; Porter 2001) recognizes that ICT is reshaping industries and organizations' competitiveness by changing the nature or conduct of business. ICT enhances the ability of organizations to manage their resources, increases their productivity, to communicate their policies and market their offerings, and to develop partnerships with all their stakeholders, namely consumers, suppliers, public sector, etc. We can state that ICT supports the development and maintenance of organizational competitiveness and competitive advantage.

2.2   The Internet

2.2.1   About the Internet

The Internet is a world-wide network of computer networks that use a common communications protocol, TCP/IP (Transmission Control Protocol/Internet Protocol). When conceived in 1969, the ARPAnet was purely the domain of the US government, research agencies and academic institutions. Business use was prohibited by the National Science Foundation's (NSF) appropriate use policy. ARPAnet was developed at the height of the cold war as an indestructible computer communications network. Based on a vast number of links between many host computers, the theory was that, if any of the links were to be broken, the network would not collapse and communication would be preserved (Cockburn, 1996). While ARPAnet grew, similar networks were developing with more business oriented slant, although they did not have access to ARPAnet. In the late 1980s ARPAnet was divided into Milnet (the US government military network) and NSFnet (for research and academic purposes). In 1991 NSFnet and the commercial nets were finally connected to form what is called the Internet today. Of the 25,000 connected networks in 1998, over 60% were already run by businesses and it is due to the presence of more and more of these businesses that the Internet is growing so rapidly.

2.2.2   The World Wide Web

Every day the World Wide Web (W3, WWW or Web) is used by millions of people connected to thousands of computers all over the world. The Web is a sub-network which was developed at CERN (European Laboratory Particle Physics) in Switzerland and is the fastest growing part of the Internet. Based on the Hypertext Transport Protocol (HTTP), it uses the hypertext mark-up language (HTML) to create Web-pages which can easily be navigated through numerous hypertext links contained within them. The Web puts a friendly

face on the Internet providing an interface that a 10-year old, or even a 70-year old, could easily understand. Perhaps more importantly, the back-end protocols for authoring and distributing Web pages (HTML) are easy to understand and use as well, facilitating the rapid deployment of Web servers. Web-browsers based on the point-and-click principle, which is so popular in today's software, are available for free on the Internet and allow access to the Web. The first of these browsers to be developed was Mosaic (at the University of Illinois, USA), of which 2.5 million copies were downloaded during the first year of release. Today's best known Web browsers are Netscape Navigator and Microsoft Internet Explorer.

The Web provides several types of opportunities to conduct business for companies. First, through the Web, companies can establish a direct link to customers to complete transactions or trade information more easily. Second, the technology lets companies bypass others in the value chain. For instance, a hotel could bypass retailers like travel agents and sell directly to companies or tourists. Companies can also use the Web to develop and deliver new products and services for new customers. Today, the Web is one of the main driving forces for new developments and new business models by providing new powerful tools and new possibilities of doing business and gaining competitive advantage. More than 80% of all worldwide registered networks belong to businesses or their research labs. The first applications were oriented on electronic marketing and advertising, but more and more companies have just begun to see the Internet as a potential marketplace. It is a perfect platform for companies to bring information about their products to potential customers all over the world, in a direct, cost minimizing, and time effective way (Burger, 1997). The Web is a possible instrument to increase efficiency, reduce costs, and improve customer service. It is changing the value chains and relations of whole industries.

2.2.3 The Usage of the Internet

The Internet supports a wide range of different tools and services that enable communication and sharing of data, such as electronic mail (eMail), Usenet, Listserv, Gopher, Telnet, and File Transfer Protocol (FTP). Tetzeli (Tezeli 1994) and Cockburn (Cockburn and Wilson 1996) define today's most important activities on the Internet:

- *Communication*: It represents the largest part of the traffic that crosses the Internet. eMail is or better was for many companies the initial reason to go online. This is, because it is fast (most Internet mail arrives at its destination only minutes after dispatch), cheap (eMail costs less than long-distance charges for fax machines or the phone), easy to use, and links many companies. Another advantage of eMails is that when the message arrives at its destination it is already in electronic form. Hence, it is not necessary to scan or reenter it into the computer. If we look at worldwide operating companies like Delta Airlines, eMail is the most used communication medium today for internal as well as for external communication.

- *Collaboration:* Many companies use the Internet today to link them to others. The connections are fast and easy to set up. Staples (an American office supplies store chain) is using the Internet to allow customers to order office supplies

electronically. Staples is creating customized supply catalogs that can run on its customers Intranets. These catalogues contain only those items and prices negotiated in contracts with each company. By searching and ordering electronically, the customers can reduce their purchase order processing costs radically by using such eProcurement technologies (Ghosh 1998).

- *Information gathering:* Companies, especially those involved in research and development, can use the Internet as an additional resource for collecting information. Much of the information and data is available at no charge, therefore costs can be reduced by using the Internet. Magna International (a leading global supplier of automotive systems, components and complete modules), for example, has a database with important information about their business rivals and partners, collecting data about their activities and future plans. The most important information source for this database is the Internet.

- *Direct marketing and advertising:* The Web is an ideal medium for businesses attempting to promote themselves as well as their products and services. It is flexible and interactive. It allows supplying the consumer with the information she or he wants. Setting up a homepage on the Web means getting in contact with millions of people all over the world. It also allows relatively small companies to compete with larger ones.

- *Direct online selling:* It is possible to visit virtual malls, browse through catalogs and examine various products in detail. The customer can buy books, airline tickets, make his groceries, and buy his clothes or his car with customized options. Almost everything is possible. Dell, for example, sells computers at a rate of over $1 million a day using the Web. Amazon.com, the Internet bookstore, has sold nearly $40 million in books electronically in 1998 whereas the travel platform Tiscover has initiated about 300,000 reservations and bookings in the year 2001. More and more business and commerce is done electronically (i.e. eBusiness and eCommerce) by using the Web.

2.2.4 Internet Statistics and Facts

Statistics and trends about the Internet are always behind its effective values, because the Internet and especially the Web are growing with an incredible speed. Predictions regarding the future of Internet commerce and advertising can not be based on clear historical evidence. The only thing one really knows is that much of the present information regarding future size will become outdated in just few months, weeks or days. In this section we take a very short look at the development and growth of the Internet in the last few years to show the increasing importance of this new technology. All resources and information for this section were researched on the Web.

2.2.4.1   Number of Hosts

In 1990 there were worldwide about 313,000 hosts (NUA 2003; http://www.nua.com), 1992 this number was doubled, 1996 there were about 10,000,000 hosts, in January 1998 29,670,000 hosts and in January 2002 already 151,901,000,000 hosts counted. The main parts of these are placed in the USA, Europe and Japan. In Europe, the leading countries in Western Europe are in their development one ore two years behind the US with market differences between the countries. In Europe the leading countries are Great Britain, Germany, and Italy, but also Finland, Sweden, Denmark, France and the Netherlands have a remarkable high number of hosts. The Nordic countries are in the lead regarding Internet activities in Europe with an Internet penetration four times the West European average. Today, we still have to estimate an average growth of new hosts worldwide of approximately 5-10% per month.

2.2.4.2   Demographics

Besides the dramatic growth of the number of hosts connected to the Internet, also the number of worldwide users that are using the Internet and its different services has grown. In a period of about 18 years the number of users grew from 20 million users in 1996 to about 580 million users in May 2002 (see also Figure 6). This counts for about 9.5% of the world population. For May 2003, we can estimate the Internet population being larger than 600 million users. About 56% of all Web users are men and the largest part of all users is between 18-34 years of age. Research from NetValue reveals that Germany has the highest number of Internet users in Europe. At the end of April 2002, 17.4 million Germans went online. This compares to 15.8 million people in the UK who went online in April 2002, 11.5 million in France, and 7.8 million in Italy.

Figure 6. Worldwide Internet users (NUA 2003)

According to the Austrian Internet Monitor (AIM 2002), 1996 about 550,000 people were using the Internet in Austria. This represented 6.5% of its population over the age of 14 years. In March 2003, there are about 3.8 million people (over the age of 14 years) using the Web, which represents a percentage of 57% (AIM 2003).
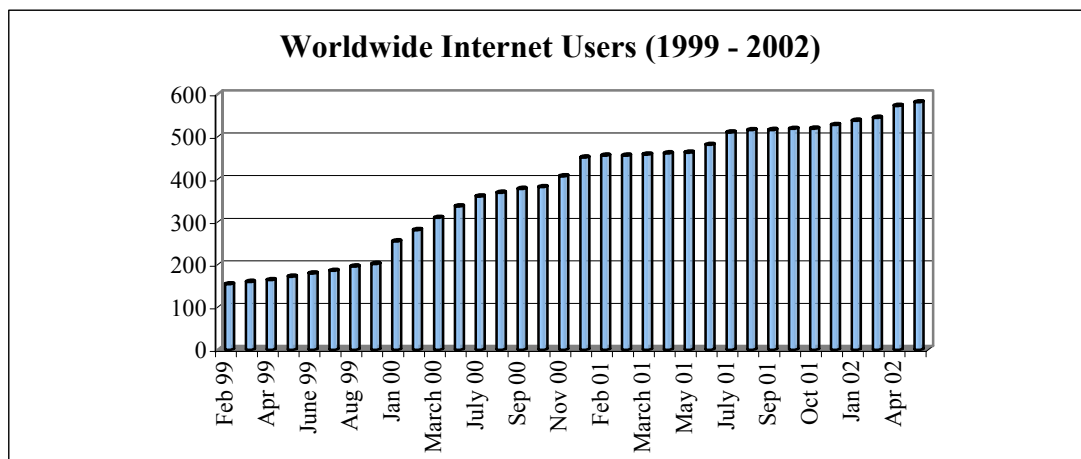
2.3   Digital Economy

The Internet changes the economy and the way business is conducted in various forms. We are witnessing a revolution in the economy and society primarily due to an explosion in information technology and the resulting rapid emergence of electronic commerce. The Internet forces companies to find new ways to expand the markets in which they compete, to attract and retain customers by tailoring products and services to their needs, and to restructure their business processes to deliver products and services more efficiently. Transaction-based commercial activities such as information gathering, shopping, trading, brokering, banking, accounting, auditing, auctioning, financing, negotiating, collaborating, marketing, supplying, partnering, training, meeting, scheduling, manufacturing, distributing, servicing, and retailing are experiencing rapid changes due to the adoption of new information technology. In short, much of what we know about the everyday conduct of business will continue to change. All companies, large and small, will face inevitable challenges brought about by these technologically enabled developments. Fortunately, this change creates both risks and opportunities. The Internet and especially the Web is one of the main driving forces for these new developments by providing new powerful tools and possibilities of doing business and gaining competitive advantages. To understand the new digital economy, it is essential to discuss the old economy and to understand how markets are working.

Every market consists in general of three main components (Choi, Stahl et al. 1997):

- the market participants (supplier, buyer, wholesaler, retailer),
- the products and services,
- the transactions and processes.

The market is the location where the supplier and customer meet and whose activities are governed by price and competition. A significant problem in this respect is the information deficiency or asymmetry between the market participants. This is the reason why different intermediaries (e.g. travel agents for the travel and tourism industry) positioned themselves to interact between the suppliers and buyers (part of their business is to reduce the information asymmetry between supplier and buyers).

Depending on the market and industry structure, the three components can occur in physical or digital form (see Figure 7). So we are talking about digital markets if all three components are in digital form whereas traditional markets are defined without any digital components. In the majority of the cases we are confronted with mixtures of digital and physical components.
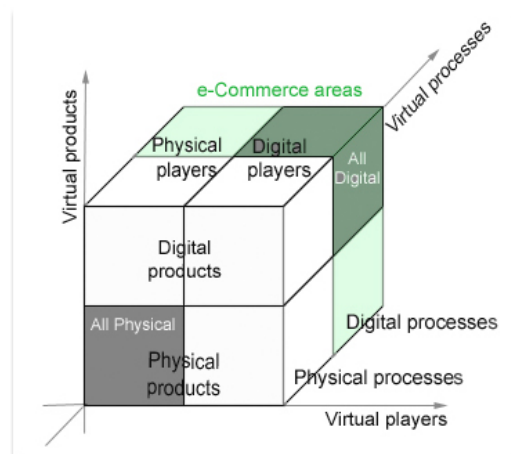
Figure 7. eBusiness areas (Choi, Stahl et al. 1997)

Within the last few years, the rapid development of ICTs has led to an increased digitalization of market components and has supported the creation of more and more digital markets.

Based on a company's Internet strategy, three types of businesses can be identified:

(1) traditional companies that use the Internet as an extension and support of their current businesses and processes (e.g. Extranet, eProcurement),
(2) traditional companies that are in a process of transition bringing their entire or large parts of their business to the Internet (e.g. Dell, Airlines),
(3) and digital companies that are dependent on the Internet (e.g. Yahoo, Tiscover, Amazon).

2.3.1 eBusiness and eCommerce

Electronic commerce (eCommerce) and electronic business (eBusiness) cover a wide variety of perspectives. The technological enabler is the Internet, including the globally connected networks, the universal networking interface and transmission standard (TCP/IP), and the World Wide Web infrastructure that facilitates information storage, browsing, and retrieval. eBusiness and eCommerce create new markets and economic activities that are characterized by instant information flows, the deconstruction of value chains, the emergence of new intermediaries, and the shifting economic rules and market dynamics. Every aspect of business from manufacturing to marketing, promotion, distribution, and product creation can be effected by eBusiness and eCommerce. By connecting business partners, suppliers and customers across what have been seemingly impenetrable boundaries of geography and industry, new levels of both innovation and competitiveness will emerge.

Within the literature, there exist several different definitions and descriptions for eCommerce and eBusiness. Many are only focusing on the online selling of products and services, others see a wider aspect in eCommerce and especially in eBusiness where also entire business processes such as product management, financial accounting, controlling,

digital marketing, cyber PR, and purchasing have to be included in a definition. We can summarize: eCommerce is the use of information technology - primarily the Web - to buy, sell, and trade products, services, and information. eCommerce is typically characterized as the online transactional element of an organization's eBusiness processes. Accordingly, we define the terms eCommerce and eBusiness in our research as follows:

eCommerce and eBusiness are the transformations of key transactions and business processes, through the use of the Internet and especially the Web.

For example, some definitions for eCommerce and eBusiness found in the literature are listed in Table 2:

Table 2. Definitions of eCommerce and eBusiness

Author	Definition
(Kalakoa and Whinston 1996)	"eCommerce is sharing business information, maintaining business relationships, and conducting business transactions by means of telecommunication networks"
(OECD 1997)	"eCommerce is business occurring over open, non-proprietary networks (=Internet), including "dedicated" infrastructure; value generating activities within firms, suppliers and customers"
(Choi, Stahl et al. 1997)	"eCommerce can be defined as the buying and selling of information, products, and services via computer network"
(Bloch, Pigneur et al. 1996)	"eCommerce can be defined as the support of any kind of business transactions over a digital infrastructure"
(Allen and Rob 2000)	"eCommerce is the use of computer networks to conduct business electronically between buyer and the seller"

eBusiness can be seen as the processes by which an organization shares information and engages transactions over the Web or across the Internet, both internally among employees and externally with customers and suppliers. Independent of the type of the company's Internet and Web strategy, the main focus is to use the technology to create value. This value has to be consistent with the company's core goal. The real key for success is to understand business in general, and in the second step, the influence of information and communication technologies in detail.

This research focuses on providing a theoretical framework for an eBusiness strategy evaluation and implementation. The framework will be used to analyze the travel and tourism industry in detail. According to the definitions above we will use the term eBusiness in our research, because we will primarily focus on changes of business processes and value chains within the travel and tourism industry caused by eCommerce activities. The first widely available technologies supporting consumer-oriented electronic commerce are those linked to the Internet, principally the Web. These are obviously the ones that are used most often today and are highly influencing the travel and tourism industry. These applications are the objectives of our research. The eCommerce market is traditionally divided into *business-to-business (B2B)* and *business-to-consumer (B2C) eCommerce*. Figure 8 shows

the different forms and possibilities of eCommerce which are essentially defined by the actors who are involved in the transaction. B2B eCommerce encompasses any form of commercial transaction that is related primarily to providing goods and services to customers (usually firms and organizations) who themselves procure these goods and services for commercial or analogous purposes. A typical form of B2B eCommerce is eProcurement. Business-to-business customers add value to the items they procure either directly through the transformation, configuration or distribution of raw materials, components, finished products, services and human resources or indirectly through the consumption of procured items within production processes. This contrasts with the B2C eCommerce scenario in which the final customer acquires goods and services primarily in order to consume their value. Examples are the order of a book from Amazon.com or the reservation of a flight ticket for a holiday trip over the Web. Besides the B2B and B2C areas, there also exist other forms of electronic commerce. Especially in the C2C and C2B areas the Internet provides new possibilities and technologies to improve business. For example the very popular and successful auctions over the websites of eBay (www.ebay.com) or Onetwosold (www.onetwosold.at) are C2C applications. Priceline (www.priceline.com) or the different Job databases are typically C2B orientated.

Our focus will be on consumer-oriented eBusiness scenarios using the Internet, the typical B2C area. The Internet can be of significant value for travel and tourism companies, in particular for accommodation facilities, because it directly connects buyers and sellers and fully supports digital information exchange between them. Furthermore the Internet overcomes time and place limits, and supports interactivity. For this reason, we are not focusing on C2C and C2B scenarios because these are consumer driven models, and we are not looking into the B2B area in detail.

		Customer		
		Consumer	Business	Administration
Supplier	Consumer	C2C	C2B	C2A
	Business	B2C	B2B	B2A
	Administration	A2C	A2B	A2A

Figure 8. The different forms of eCommerce

2.3.2 eBusiness and eCommerce Facts

In 2002, more than 10% of European enterprises said that eBusiness constituted a significant part of the way they operate and nearly 50% felt that it constituted at least some part of their activities (EC 2003). The impact is most significant in those sectors which manufacture or operate IT and electronics themselves and in sectors with a high potential for digitalization of service delivery. In tourism, the awareness of eBusiness impact is also very high. Travel and tourism is the leading application in B2C eCommerce having already caused substantial changes in the industry (market structure, new players, consumer acceptance). For example, in the first quarter of 2002, online travel accounted for a total turnover of approximately € 7 billion - an increase of 87% from the first quarter of 2001 (comScore 2002). Today, the travel and tourism sector represents approx. 50% of all B2C eCommerce.

According to the European eBusiness Report 2002/2003 (EC 2003), the most significant impacts of eBusiness concern the internal work processes. More than a quarter of all enterprises say that they experience significant changes through eBusiness practices. Also about 20% report that the organization structure and the relation to customers and suppliers have also changed. The report also recorded (see Figure 9) that 94% of enterprises in Europe used computers in mid 2002, 83% had access to the Internet, 52% their own Web page, 34% had implemented ePurchasing processes but only 13% used eCommerce to make sales (EC 2003). Enterprises from the travel and tourism industry are in the second position and high above the European average with a share of about 36% of selling online.
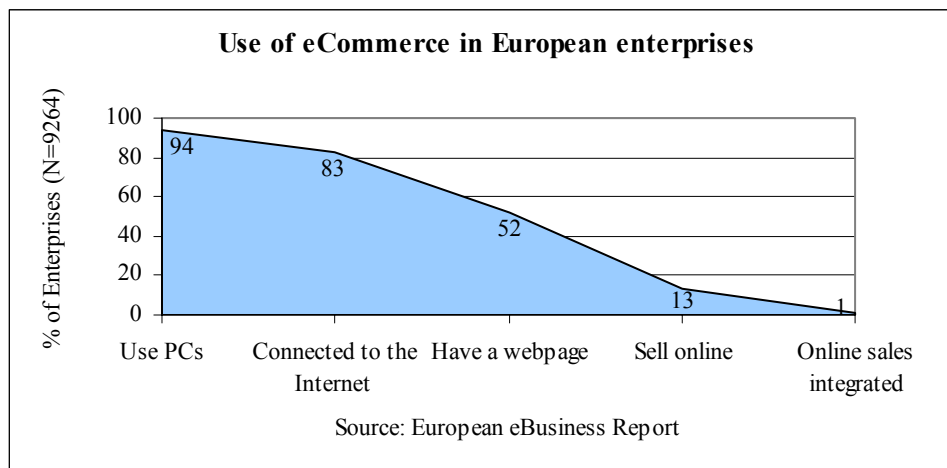

Figure 9. Use of eCommerce in European enterprises (EC 2003)

On the other hand, we have to look at the market, i.e. the demand side, in more detail. As already illustrated, the number of worldwide Internet users has grown significantly over the past few years. Forrester Research reports (Forrester 1998; Forrester 1999) indicated that the number of Europeans going online was slowing down, but there were more regular Internet shoppers. The reports illustrate that the Internet penetration rate in Europe in the second quarter of 2002 was 46%, three percentage points higher than in the fourth quarter of 2001. While the increase of new Internet users is slowing down, the number of regular online shoppers increased by 22% from the fourth quarter of 2001 to the second quarter in 2002.

There is now a growing sophistication among Internet users, and the number of regular online shoppers now accounts for 17% of all Europeans, according to Forrester Research.

In 2004, eCommerce (B2B and B2C) is expected to reach a market volume of € 1.55 billion, or 6.3% of total trade (see Table 3). However, the development will not be the same all over Europe. Especially the Scandinavian countries as well as Germany are expected to take a leading position, whereas in southern Europe the low technology penetration and lagging investment will restrict the development. According to Forrester, the travel and tourism industry was already the leader among the online selling industries (in the B2C area), in the year 2001, and about 40% of the all revenues belong to the tourism and leisure industry today. Today, books, CDs and holiday products are the most popular items bought online, but there is also a rise in purchases of higher value items such as electronic goods.

Table 3. eCommerce in Europe 2004 (Forrester 1998)

Country	eCommerce sales in 2004 (in Mil €)	% of Country Commerce	% of European eCommerce
Norway	40,686.00	10.5	2.6
Sweden	64,904.00	10.1	4.2
Denmark	44,677.00	9.8	2.9
Switzerland	65,415.00	9.5	4.2
Netherlands	100,508.00	9.3	6.5
Finland	32,850.00	8.9	2.1
Luxembourg	3,922.00	7.7	0.3
UK	282,385.00	7.5	18.2
Austria	41,156.00	7.1	2.7
Germany	405,824.00	6.7	26.2
Belgium	43,788.00	6.3	2.8
Ireland	14,736.00	5.2	1
France	206,049.00	5.1	13.3
Italy	146,648.00	4.6	9.5
Spain	47,798.00	3	3.1
Portugal	5,585.00	1.8	0.4
Greece	3,517.00	1	0.2
	1,550,448.00		

Within the next years, B2B trading will continue to drive the eCommerce market. However, consumers will increasingly turn from surfers to consumers and the B2C trading will become more important (see Figure 10). According to Forrester, in the next five years online sales of retail goods and services will grow by 140% annually. Four factors will fuel growth:

- Cheap appliances and access will triple the number of online consumers at home to 147 million - with more than 200 million or half the population of Europe accessing the Web from anywhere.
- Better online stores will inspire 100 million to shop - 17 times the current number.
- As comfort levels increase, consumers will move from convenience goods such as books to a wider range of products and services.

- Increased purchasing frequency and online billing will raise average annual purchases from 500 Euro to 1,900 Euro.

Figure 10. B2B versus B2C in Europe (Forrester 1999)
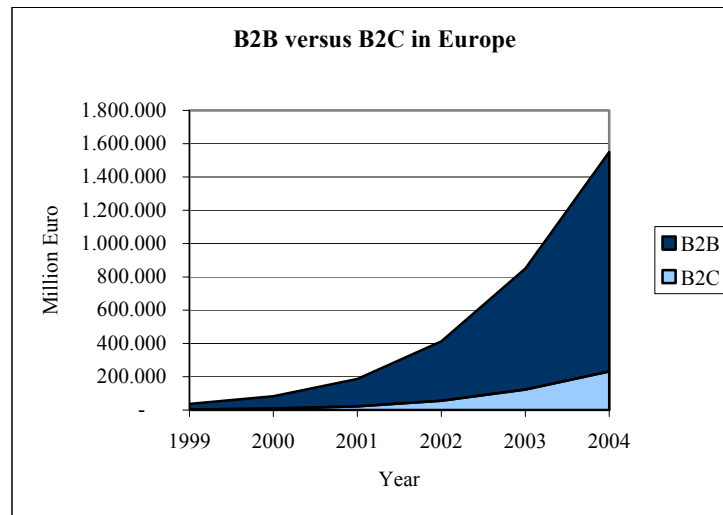
Regarding the situation in Austria, we first look at the use of the Internet in general. As already described, Austria shows a high Internet penetration of approx. 57% of the population from the age of 14 onwards (3.8 million users in the first quarter of 2003), thus being top ranked in Europe behind Finland and Sweden (AIM 2003). Some 30% of Austrian citizens use the Internet on a regular basis, 24% (or 1.6 million users) intensively.

Approximately one third of Internet users have conducted purchases via the Internet in the course of the last year in Austria. This makes Austria a European leader in the business-to-consumer field (B2C). The B2C-turnover volume was estimated at some € 290 million in Austria for the year 2000. According to Statistik Austria (Schiefer 2002) the aggregated eCommerce turnover in Austria for the year 2001 was € 22.8 billion (representing about 7% of all turnovers). We have to recognize that these numbers include B2B as well as B2C business, thus also representing EDI transactions. The Internet represents a turnover of € 6.3 billion. 82% of all Internet buyers are Austrians, 11% represent EU countries. The B2C part represents with 1.3 billion € just a small part.

According to a survey of ec3 (Danzinger, Nowak et al. 2002) in the year 2001 (see Figure 11), nearly 70% of all participants stated that they are already buying books over the Internet. Also very important are CDs, software and travel products. Regarding the answers to the question what consumers plan to buy in future over the Web, we see that books and CDs will continue to be the most important items, but all kind of travel products like flight and train tickets, hotel rooms, and package holidays will have the largest growth rates.
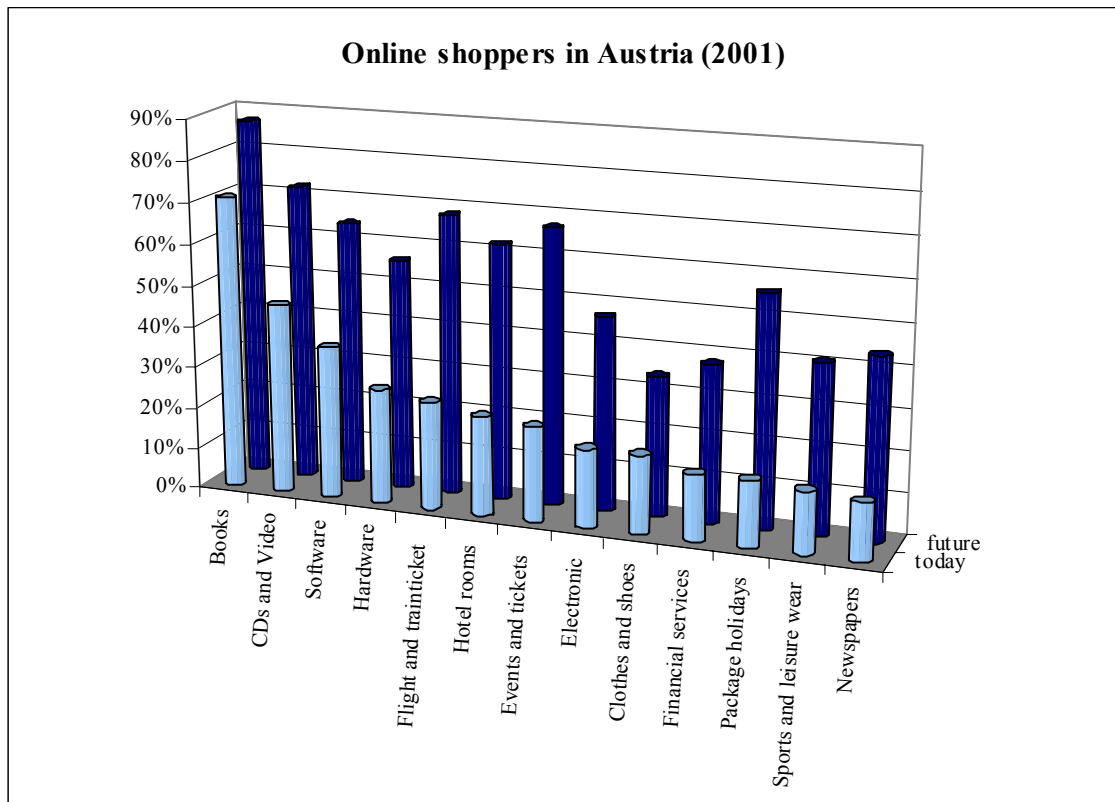
Figure 11. Online shoppers in Austria today and in future (Danzinger, Nowak et al. 2002)

Chapter 3

A Framework for Competitive Advantage in eBusiness

3.1   Overview

This chapter focuses on providing a theoretical framework for the formulation and implementation of a competitive strategy by extending Michael Porter's Model of Competitive Advantage (Porter 1985; Porter and Millar 1985; Porter 1995; Porter 2001) and using the Logics of Value concept, defined by Hans Akkermans (Akkermans 2001; Gordijn and Akkermans 2001). The framework will be used to work out where and how the Internet as a new communication and information technology influences the SME accommodation sector in Austria. It includes the following major steps:

- In the *first step* we use the strategic concept of the five competitive forces (Porter 1985; Porter 1995) to analyze an industry and extract possible threats caused by the Internet.

- To counteract these threats of the Internet and to achieve competitive advantage a firm has to develop a strategy by using the opportunities of the Internet. This is the subject of the *second step* of our framework.

- Finally, we make use of the framework of competitive advantage to define strategies for companies. The framework will be applied to the SME accommodation sector in Austria. This will provide a detailed view of how SME hotels can use the Internet to gain competitive advantage.

3.2   Step 1: Identifying Threats Caused by the Internet

Since the beginning of computerization, information and communication technologies have been viewed as playing a supporting role for the organizational functions. During the 1980s, ICTs were also studied as instruments for implementing strategic initiatives (Morton 1991). The Internet and the Web have several characteristics that make the investigation of this influence on industries and competitive strategies highly attractive. Global connectivity of

businesses and customers reduce old barriers in space and time and enable new value constellations that are richer in form than the traditional value chain (Akkermans 2001). All dimensions of an organization and an industry have to be re-examined in the light of power ICT applications. Many strategic concepts have been developed over the past few years with different focuses in their objectives. Two of the best-known approaches are:

- The resource based view (RBV)
- The market based view (MBV)

The *resource based view* focuses on resources of firms that provide the base of strategic choices and the capability of competitive advantage. Some authors criticize that, for its inward focus, the RBV risks ignoring the nature of market demand. Contrarily, the *market based view*, based on the competitive forces model (Porter 1985) focuses on a more structural analysis of an industry. It helps us to understand industry dynamics and to anticipate the impact of external factors on a firm's operating environment. Our research will be based on this MBV to investigate the changes and threats to a company caused by the Internet.

3.2.1 The Structural Analysis of Industries

Michael Porter (Porter 1985; Porter and Millar 1985) at Harvard Business School has developed the most commonly accepted framework for analyzing the concept of industries, in particular for strategic thought and business planning. It has withstood sustained testing in the marketplace and has emerged as a common organizing framework for evaluating strategy design alternatives. It helps strategic managers to understand industry dynamics and to anticipate the impact of remote factors on a firm's operating environment correctly.

eBusiness has several characteristics that make the investigation of its influences on industries and business models highly attractive. Global connectivity of businesses and customers reduce old barriers in space and time and enable new value constellations that are richer in form than the traditional value chain (Akkermans 2001). New possibilities of interactivity provide real-time interaction for customers and suppliers. This enables a variety of new interactive business models and increases the complexity (Timmers 1998). All dimensions of an organization and an industry have to be re-examined in the light of power eBusiness applications.

The model of Porter describes five competitive forces that a company has to deal with effectively to achieve a competitive advantage in the business environment. He suggests that an effective strategy must take into account not only the actions and reactions of direct rivals, but also the roles of suppliers and customers, alternative products that satisfy the same basic need, and the prospect that new entrants will enter the market (Porter 1985). The model of Porter focuses on the value chains within an industry by looking beyond the boundaries of a company. It describes a network of players that perform related value creation activities and that have to be investigated by the strategy development for a company. Adapting Porter's model to an eBusiness strategy can provide a useful framework for eCommerce decisions.
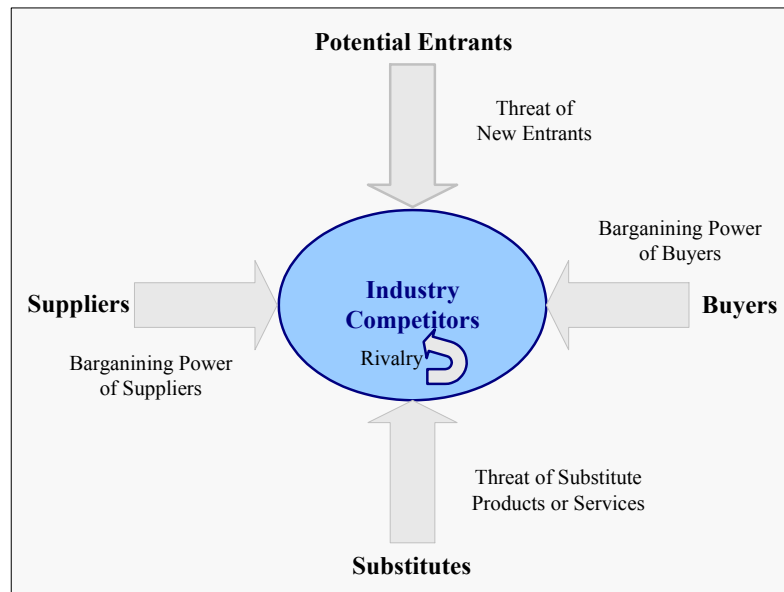
Figure 12. The Five Competitive Forces that determine industry
profitability (Porter 1985)

According to Porter (Porter 1985; Porter 2001) a company develops its business strategies to
obtain competitive advantage over its competitors. It does this by responding to the five
primary forces:

- The threat of new entrants
- Rivalry among existing firms within an industry
- Threat of substitute products/services
- Power of suppliers
- Power of buyers

The collective strength of these five forces determines the ultimate profit potential of an
industry. The corporate strategy goal of all firms in an industry is to find a position where
the firm can best protect itself against these forces or can influence them in its favor. Every
industry has an underlying structure, or a set of fundamental economic and technical
characteristics that give rise to these competitive forces (Porter and Millar 1985). The
industry structure is relatively stable but can change over time as an industry evolves. Every
strategist, wanting to analyze the position of a company, has to learn what makes the
environment tick, because firms can influence the five forces with their strategies. In the
following subsections we discuss the most important elements according to Porter that
determine the strength of the five competitive forces.

3.2.1.1   Threat of New Entrants

New entrants to an industry bring new capacity, the desire to gain market share and often
substantial resources. The seriousness of the threat of entry depends on the barriers present
and on the reaction from existing competitors that the entrant can expect. In a majority of

industries new entrants cannot enter on terms equal to those of established firms (Grant 1995). The six major sources of entry barriers are shown in Table 4.

Table 4. The entry barriers

Economics of Scale	These economics deter entry by forcing a company either entering on a large scale and running the risk of drastic underutilization of capacity or entering on a small scale and accept high unit costs.
Product Differentiation	Brand identification creates a barrier by forcing entrants to spend heavily to overcome customer loyalty. Advertising, customer service, being first in the industry, and product differences are among the factors fostering brand identification. Product differentiation is also a powerful instrument to increase the switching costs for the customers.
Capital Requirements	The need to invest financial resources in order to compete creates a barrier to entry.
Cost Disadvantages Independent of Size	Entrenched companies may have cost advantages not available to potential rivals, no matter what their size and attainable economies of scale. These advantages can stem from the effects of the learning curve, access to the best raw material sources, assets purchased at preinflation prices, locations or government subsidies.
Access to Distribution Channels	The more limited the wholesale or retail channels are and the more the existing competitors have tied up these, the tougher the entry into the industry will be.
Government Policy	The government can limit or even foreclose entry to industries with such controls as license requirements and limit access to raw materials. The government can also play a major indirect role by affecting entry barriers through controls such as air and water pollution standards and safety regulations.

3.2.1.2   The Power of Suppliers

The company in an industry operates in two types of markets. In the markets of inputs they purchase raw materials, components, finance and labor service from the suppliers. In the markets of outputs, they sell their products and services to customers who may be distributors, consumers or other manufacturers. Suppliers can exert bargaining power on participants in an industry by raising prices or quality reduction of purchased goods and services. The power of suppliers depends on the amount of suppliers in an industry, the threat of forward integration, the availability of substitutes or whether the product is an important input factor to the buyer's business.

3.2.1.3   The Power of Buyers

Customers can beat down the prices, demand higher quality or better service, and play competitors off against each other. The power of the customers depends also on their number, the switching costs, the importance of quality of the final product, the level of knowledge about the products and services, the threat of backward integration, and the availability of substitution products.

3.2.1.4   The Threat of Substitute Products/Services

By placing a ceiling on the price a company can charge, substitute products or services limit the potential of an industry. Unless it can upgrade the quality of the product or differentiate it somehow, the industry will suffer in earnings and possibly in growth. The competition from substitutes is affected by the ease with which buyers can change over to substitutes - the buyers' switching costs.

3.2.1.5   Rivalry Among Existing Firms Within an Industry

Rivalry among existing competitors takes the familiar form of jockeying for position - using tactics like price competition, product introduction, and advertising. The rivalry depends on factors like degree of concentration within an industry, differences of size, switching costs, and industry growth.

3.2.2 Threats Caused by the Internet

Michael Porter (Porter 1985) suggests that technological change, and in particular ICT, are among the most prominent forces that can alter the rule of competition. This is because a majority of activities in an organization create and use information and this will be more powerful for industries where information is the key product. Evans and Wurster (Evans and Wurster 1997) state in their book "*Blown to Bits*" that every business is an information business and information accounts for the preponderance of competitive advantage and therefore for profitability.

Porter and Millar (Porter and Millar 1985) contend that ICTs affect the competition in three major ways:

- ICT can change the structure of an industry and alter rules of competition.
- ICT can be used to create sustainable competitive advantage and provide companies with new competitive instruments.
- As a result of ICT, new business can be developed within a company's existing activities.

The Internet, as an ICT, provides several types of opportunities for companies to conduct their business but it also alters the rules of competition within an industry by posing several threats. In this section we seek to provide a broader view of information markets by looking at the threats of the Internet to the five competitive forces. It is very important to recognize that each industry will be modified in different ways making it very hard to draw detailed

implications for a general analysis. Thus, we will first define general implications for our framework that will be evaluated with online surveys for the travel and tourism industry, in particular for the hotel industry in Austria.

The Internet is transforming the rules of competition for established business in two fundamental ways (Rayport 1995; Choi, Stahl et al. 1997; Bakos 1998; Williamson and Scott 1999; Afuah and Tucci 2001; Applegate 2001; Wirtz 2001; Rappa 2002):

- the reduction of information asymmetry, and
- disintermediation and reintermediation.

3.2.2.1   The Reduction of Information Asymmetry

The Web reduces information asymmetry on markets (Choi, Stahl et al. 1997; Porter 2001; Wirtz 2001). Consumers can easily collect information about products or services without actually going to stores and comparing prices. In the offline market, researching product offers can be expensive and time-intensive. In the Web, a complete search of product offers is possible at low cost, thus the search cost for the consumers are lowered. The size of a firm is not a significant factor in establishing one's presence in the virtual marketplace. Big and small companies can be located side by side with no differences, the capital requirement to operate on a market is strongly reduced. The Web also reduces market imperfection and allows more players to compete in cyberspace.

Consumers can search for product and service information and compare prices over the whole Web where geographical distances play no role. This will significantly affect the competition within an industry. Bakos (Bakos 1998) shows that lower buyer search costs in electronic markets promote price competition among sellers. This effect will be most dramatic in commodity markets, where intensive price competition can eliminate all seller profit.

3.2.2.2   Disintermediation and Reintermediation

Intermediaries play a very important economic role in physical markets as well as in information markets. For example, retailers provide access to goods produced by remote sellers for consumers. They also act as insurers of quality and diversity and provide product information. Intermediaries are often adding cost for their services to the products that have to be paid by the producers or consumers. Traditionally, the economic gain attributed to an intermediary – reduced cost – is largely due to organizational efficiency. Essentially, a firm can undertake the same task, but an intermediary is preferred because it costs less. This cost-reduction role of intermediaries has been the subject of transaction economics of Williamson (Williamson and Scott 1999). It has been argued (Choi, Stahl et al. 1997; Bakos 1998; Williamson and Scott 1999) that electronic markets lower the cost of market transactions. It will become easy to directly match buyers and sellers, and as a result the role of intermediaries may be reduced or even eliminated, thus leading to disintermediation. Disintermediation means that products and services are directly given to the consumers, thus having less cost, the Web is a possible instrument to support disintermediation by directly connecting customers to producers.

On the other side, the Web also provides new possibilities and technologies for companies to create electronic marketplaces that support new types of intermediaries, i.e. so-called cyber-mediaries (reintermediation). This new intermediaries perform functions that include matching buyers and sellers providing product information to buyers and marketing information to sellers, aggregating information goods, providing trust, and integrating components of consumer processes.

Table 5 describes eight different threats caused by the Internet, which we extracted from the literature. Companies have to take these threats into account by formulating their business strategy.

Table 5. Threats caused by the Internet

The threat of new entrants
▪ Lowered consumer search costs and decreased switching costs open a market for potential new entrants; this reduces the entry barriers for new companies by opening the distribution channels (reintermediation) and capital requirements (Bakos 1998; Porter 2001).
▪ The Internet is a possible instrument to bypass wholesale or retail channels (disintermediation), this can also reduce entry barriers (Wirtz 2001).
Rivalry among existing firms
▪ The Internet brings many more companies into competition with one another by expanding geographic markets and reducing entry barriers; it can raise the rivalry within the industry and increase the pressure for price discounting (Porter 2001).
▪ The Internet offers new possibilities and instruments to meet customer needs and offers new products and services (Timmers 1998), thus the rivalry among existing companies within an industry can increase (Porter 2001).
Threat of substitute products/services
▪ The Internet offers new possibilities and instruments to meet customer needs by offering new products and services, which could substitute existing ones (Porter 2001).
Power of suppliers
▪ By reduced entry barriers and the increasing number of competitors the power of the suppliers will increase (Porter 2001).
Power of buyers
▪ The reduced switching costs of buyers increase also the power of the buyers (Tezeli 1994; Porter 2001).
▪ The customer can easily compare different prices and gain knowledge about products, thus the price becomes the most important decision criterion (Bakos 1998; Wirtz 2001).

3.3   Step 2: Identifying Opportunities Provided by the Internet

According to Porter (Porter 1985), competitive advantage grows out of the way an enterprise organizes and performs discrete activities. Competitive advantage usually requires that the capabilities of an organization are valuable, rare or hard to imitate. Such capabilities need to create value for the consumer at a higher level than competitors. The operations of any enterprise can be divided into a series of activities such as salespeople making sales calls, service technicians performing repairs, scientists designing products or processes in the laboratory, and treasurers raising capital. The value chain subdivides a firm into its strategically relevant activities in order to understand the behavior of the firm's cost and its existing or potential source of differentiation. A firm gains competitive advantage by performing these strategically important activities more cheaply or better than its competitors. Every firm can be viewed as a collection of value activities that are performed to design, produce, market, deliver and support its products. The value a company creates is measured by the amount that buyers are willing to pay for a product or service. A business is profitable if the value it creates is higher than the costs of creating the value activities (Porter 1985; Porter 2001). To gain competitive advantage over rivals, a company or organization must either perform these activities at a lower cost or perform them in a way that leads to differentiation and a premium price and more value.

A firm is profitable if this value exceeds the collective cost of performing all of the required activities. To gain competitive advantage over its rivals, a firm must either provide equal value to the customer, but perform activities more efficiently than its competitors (lower cost), or perform activities in a unique way that creates greater buyer value and commands a premium price (differentiation). According to Porter and as portrayed in Figure 13 these activities can be grouped into nine basic categories for virtually any firm at the business unit level. Within each category of activity, a firm typically performs a number of discrete activities that may represent key strengths or weaknesses for the firm.
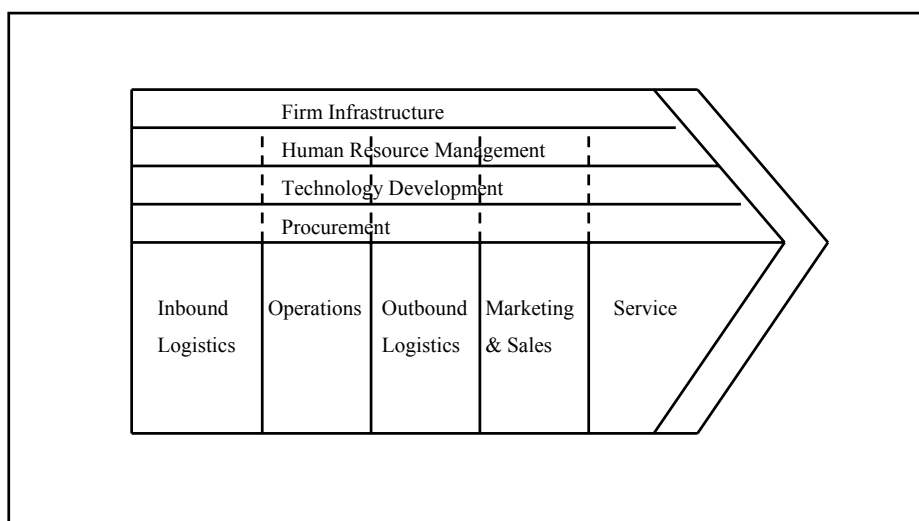
Figure 13. The generic value chain (Porter 1985)

These basic categories can be grouped into two types (Porter 1985):

- *Primary activities* are those involved in the physical creation of a firm's product or service, its delivery and marketing to the buyer and its after-sale support. In Figure 13 they are illustrated as chain moving from left to right.
- *The support activities* provide inputs or infrastructure allowing the primary activities to take place on an ongoing basis.

Every one of the primary and support activities incurs cost and should add value to the product or service in excess of the costs. In general, a company's value chain is a system of interdependent activities that are connected by linkages (Porter 1985; Desinano and Vigo 1994; Benjamin and Wigand 1995). These linkages exist when the way in which one activity is performed affects the cost or effectiveness of other activities. The careful management of linkages is often a powerful source of competitive advantage. The value chain for a company in a particular industry is embedded in a large stream of activities named the *Value System* (see Figure 14). This value system includes the value chains of suppliers, who provide inputs to the company's value chain. Additionally to seeking improvements in its own activities, a firm should also try to create benefits from improving its links to other organizations (Thompson 1990; Desinano and Vigo 1994).
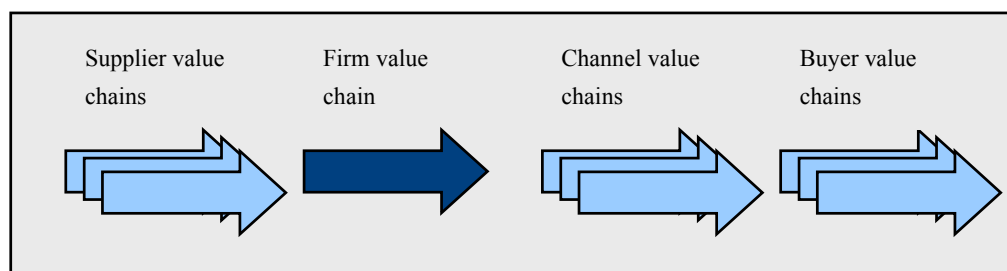
Figure 14. The value system (Porter 1985)

Linkages do not only connect value activities inside a company but also create interdependencies between its value chain and those of its suppliers and channels. Each company can create competitive advantage by optimizing or coordinating these links to the outside.

To define our framework for competitive advantage we describe how a firm can use the opportunities of the Internet to improve its business and to counteract the threats of the Internet and position itself with the value system. Akkermans (Akkermans 2001; Gordijn and Akkermans 2001) has defined that three different logics of value determine the success in an eBusiness environment:

- *Techno logic*: looks at technology and its functionality and the capacity of companies to adopt and use it.
- *Market logic:* describes the customer interest and their future needs and behavior.
- *Business logic*: looks at business processes and potential roles of the companies that together define the industry value chains.

These three different logics represent separate issues but have to work together and be aligned for success (Akkermans 2001). We use the already described model of Porter to line out the interdependencies between the three logics. The business logic focuses on the company and the potential role within the value chain. This is the part where the competitive strategy has to define the value activities to gain competitive advantage. The techno logic represents the technology as a driving force to the five competitive forces of the model of Porter by influencing each of the five forces and causing threats to the business logic and the market logic. But the techno logic also provides several opportunities to counteract these threats. The market logic represents the consumers and suppliers that are also causing several needs and threats for a company. The market logic is highly influenced by the techno logic but can also be pushed from the business logic. The central question for companies is how to create value within this system and its own value chains. Akkermans (Akkermans 2001) describes 4 major possibilities of generating value: Value adding, value extracting, value creation, and value capturing. Each activity within a company uses some technology to combine inputs and human resources to produce output and create value. The ability of companies to create or capture this value is the success factor for competitive advantage.

In our framework we distinguish between two value tasks a company has to focus on within its value chain:

- The *value creation* which also includes the extraction and adding of value to services and products.
- The *capturing of value* to gain knowledge and the ability to influence the value creation process.

Both of these two tasks can be enhanced and optimized by the opportunities of the techno logic, e.g. the possibilities of the Internet. In the next section we describe some of the most important implications of the Internet mentioned in the literature. We identify 12 different opportunities to gain competitive advantage and counteract the threats of the Internet.

3.3.1 Opportunities for Value Creation

3.3.1.1 Product Promotion and Differentiation

The first use of eCommerce is to provide product information to customers, through on-line electronic brochures. This can be seen as an additional marketing channel allowing to reach a maximum number of customers. The advantage of electronic commerce as a way to deliver product information is its availability anytime, anywhere, provided the customer has the infrastructure to access this information. As already described this reduces information asymmetry on markets. Consumers can easily collect information about products or services without traveling to stores and comparing prices. In the offline market researching product offers can be expensive and time intensive. As a result, consumers rely on product suppliers and retailers to help them in the search, and the suppliers and retailers take advantage of this situation by charging higher prices or commissions. In the Web a complete search of product offerings is possible at low cost. An alternative for companies to make product

comparison more difficult for consumers is to differentiate their products from others. The Web provides technologies and methods for product differentiation which is a powerful instrument for companies to increase switching costs for the consumer. This can increase the barriers for new entrants.

Product Bundling: One possible competitive strategy is product bundling. Product bundling promotes the benefits of the whole package, thus keeping buyers from comparing individual items. By adding more services to a bundle, the company could command a higher price for its bundling service. Moreover, adding services to bundles is financially attractive because it is less expensive to sell an additional service to an existing customer than to attract a new customer. The bundling strategy counteracts the threat of product substitutes and rivalry among existing firms.

Niche Products: Another strategy is innovation or the introduction of niche products, which also counteracts the threat of product substitutes, new entrants into the market and competition among existing firms. By using the direct access to consumers enabled by the Web, companies can collect information, identify target consumers and introduce products or services to better meet consumers' needs. Companies can easily collect information on new products desired by small segments of the market. By creating products that meet the needs of consumers in these niche markets, companies can command higher prices (Shin 2001).

Personalization: The use of Web technology to personalize interactions with customers and build customer loyalty is very important. Electronic marketplaces support personalization and customization in two ways (Bakos 1998): The Web supports consumer tracking technologies by identification of individual buyers. Information about these buyers, such as relevant demographics, consumer profiles or comparison with known preferences of similar consumers can be used to discover or estimate their specific preferences. Information-rich products lend themselves to effective customization. For instance, newspapers are asking their users for their preferences and their interests to build a personalized paper for each user. Another example are the sites of on-line travel organizations like Expedia or Travelocity. Here the user has to register and provide personal information to build a profile of his preferences. Besides the benefits for the customers, the companies get useful information about the behavior and preferences of their customers, too.

3.3.1.2   Price Adoption

According to Bakos (Bakos 1998), lower search costs for price and product offerings in the Web promote price competition among sellers. To overcome these threats, companies have to employ appropriate pricing strategies for selling products via the Internet. Sellers can employ a price discrimination strategy that makes it difficult for buyers to compare the prices of alternative product offerings. Sinh (Shin 2001) suggests the following strategies for price discrimination:

Price Lining: Price lining refers to the practice of offering the same products or services at various price points to meet different customer needs. For example, American Online charges five different rates that vary according to subscriber usage.

Smart Pricing: Smart pricing refers to the practice of charging various prices from market to market depending on market conditions and differences in how customers value the product.

Dynamic Markets: Primarily the trading processes will become more efficient. Underneath the billions of dollars generated annually are three distinct types of Internet business trading processes: auction, bid, and catalog. Forrester calls the product of this change a dynamic trading process. Forrester also predicts that the catalog business will amount to 52% in the year 2002, bid activities to 36% and auction to 12% (Forrester 1999).

3.3.1.3   Product Distribution

One of the big advantages of the Internet is that anyone can link to anyone else. This makes it possible for a participant in the value chain to usurp the role of any participant. Not only that book publishers bypass the distributors and sell directly to readers, but also Amazon could decide to publish its own books – to make use of very good information, gathered and collated electronically, about readers interests (Ghosh 1998).

Dialogue-based Distribution: One tactic is to build a direct link with consumers and enter into a dialogue with them about products. This allows companies to provide information about their products for customers, collect information about their customers and engage in data mining. They can customize products to meet customer needs and offer promotions tailored to specific customer groups. This process helps to build a base of loyal and profitable customers. It is also argued that the benefits of personalized promotions will be greatest when customers are interested in detailed product information or the product is marketed as state-of-the-art. The Internet encourages companies to employ this marketing based on direct, personalized relationships with customers. The Internet provides customers with an unprecedented degree of control about the entire marketing process. As consumers become proficient in using the Internet, they will only buy products that precisely match their needs. Thus, companies have to formulate customer-centric promotion and distribution strategies that respond to this new customer power.

Revenue Sharing: Another distribution strategy for gaining competitive advantage is the revenue-sharing marketing strategy. A revenue-sharing marketing strategy is an affiliated marketing program with partners based on commissions. For example, Amazon.com launched its affiliate program in 1996 and now has some 400,000 affiliates. Compared to traditional mass marketing, revenue-sharing programs allow companies to keep track of purchases made by customers and draw a direct line from marketing to sales.

Disintermediation: The Internet can also significantly change the way companies' products or services are delivered by reducing transaction and distribution costs. One way for companies to differentiate their products from rival companies is faster and more efficient delivery of products to their customers. The Internet allows companies to jump over parts of the traditional supply and procurement channel. Direct sellers do not rely on wholesalers and retailers to deliver their products to consumers. To deliver new services or bypass intermediary companies it is necessary to build direct connections to the customers. The

behavior of customers who are already buying goods and services on-line clearly indicates that companies can use Internet technology as a digital channel to deliver services to customers (Ghosh 1998). So, existing business relations between many suppliers and retailers can be bypassed by using the Internet. This affects the business in two ways - suppliers can use the Internet as a new distribution channel and reduce the power of the retailers. The development of electronic markets results in important changes in the organizational structure of distribution and the economics of marketing channels. Therefore some authors (Benjamin and Wigand 1995) argued that the new information infrastructures which are not limited to temporal or spatial boundaries and which result in lower costs for obtaining information will bypass intermediaries. Intermediaries can be defined as market participants who are neither suppliers nor demanders but have the aim to facilitate the functioning of the market for which they receive a commission. In short, the functions of intermediaries are providing information to all market participants, coordination of supply and demand, distribution of goods and services, gaining the trust of market participants to advice them with their buying or selling decision. We can say that disintermediation will take place for certain products, especially those that can be distributed over the Internet, easily described or whose asset specificity is low. Another example of disintermediation is the cancellation of a broker. There the broker as an intermediary will be unnecessary as his functions are undertaken through the integration and common use of data of different market participants.

Reintermediation: On the other side new types of intermediaries will emerge in electronic markets – called cybermediaries – like search engines, directories, electronic malls, e-shops, etc. These cybermediaries take the new role of brokering relationships between consumers and producers in the world of eCommerce. As the Internet leads to high market transparency, suppliers and buyers are able to access to innumerable information sources and meet each other in a virtual market room for their transactions. But even this flood of information will create a possibility for the new intermediary generation. Often the users get so much information that they cannot use it in a meaningful way. It is the job of intermediaries to eliminate these problems by providing a platform for information exchange between buyers and sellers, which aggregates the relevant information and brings the appropriate trading partners together. Another important function of cybermediaries is the creation of confidence. As business relations only exist for a short term and personal contact in form of face-to-face negotiations does not take place, the risk of opportunistic behavior has risen dramatically. The intermediaries are responsible to find systems that will prevent or punish such behavior to guarantee the liquidity on electronic markets. One way is observing the behavior of market participants and the allocation of so-called trustworthiness ratings afterwards. These ratings reduce the risk of opportunistic behavior and give market participants the possibility to evaluate their potential business partners.

3.3.2 Opportunities for Value Capturing

The value that firms can capture from their activities is as important as the value they can create. If they cannot capture enough value from their activities they have problems to generate value in future activities. It can be described as the knowledge or the capability to create value. The Internet facilitates the cooperation and communication within

communities and among market participants. Possible opportunities for value capturing are: Web Mining and Online Market Research.

Web Mining: Web mining has become one of the most rapidly growing areas in computer science within the last few years. Because of its direct applications and relevance in eCommerce, eCRM, information retrieval and filtering and Web information systems, a hype about the business opportunities offered by this research field developed (Freudenthaler, Grossmann et al. 2002).

In the area of Web mining we usually distinguish three different areas (Grossmann, Hudec et al. 2003):

- *Web content mining* dealing with the discovery of useful information from the Web content itself.
- *Web structure mining* aiming at the discovery of the model underlying the link structure of the Web.
- *Web usage mining* defined as data mining activities with the goal to analyze and predict the behavior of users of websites.

The main target groups of results in Web content mining and Web structure mining are Web users whereas all issues of Web usage mining are of utmost importance for information providers, in particular in connection with eCommerce. Such decision support has to be based on a number of different information sources including information about content and structure of specific websites as well as data describing the behavior of active as well as potential users. The most important data sources in this direction are clickstream data. Thus, Web mining offers a wide range of possibilities to get in-depth knowledge about the users behavior that can be used to improve a company's business strategy.

Online Market Research: When it comes to analyzing user structure, user needs or user behavior, methods of online market research can be quite helpful to gain relevant data for analysis. As in classic market research, there exist a variety of different research methods, such as panel surveys, eMail surveys, group discussions, special forms of online gaming, and of course, online surveys. Online market research provides companies with the possibility to collect essential information about user behavior and user needs in a cost minimizing and very speedy manner. Thus, knowledge about the user and consumer can be captured and used for product and price development.

3.4   Framework for Competitive Advantage

The central question in the competitive strategy is the firm's relative position within its industry (Gluck 1982; Thompson 1990). This positioning determines whether a firm's profitability is above or below the industry average. Core competency strategies enable organizations to create a distinctive, maintainable, and competitive edge. Different authors provide alternative explanations and use the term strategy differently. Unfortunately, we cannot discuss all concepts (Gluck 1982; Porter 1985; Thompson 1990; Barney 1991; Grant 1995; Bloch, Pigneur et al. 1996; Haertsch 2000; Afuah and Tucci 2001; Wirtz 2001; Buhalis 2002) in detail, thus we are primarily focusing on the concept of Porter (Porter 1985; Porter and Millar 1985; Porter 1995; Porter 2001). He defines the following generic strategies for achieving above-average performance in an industry (see Figure 15):

- *Cost leadership*, in which organizations are required to minimize their costs, is based on mass production and strict cost control of the main business functions. Cost leadership may emerge, for example, from standardizations, economic of scale or better deals with suppliers.
- *Differentiation* can be achieved by creating products through a unique selling proposition or services that are appreciated industry-wide as being unique and valuable.
- *Focus* refers to the strategy in which a narrow competitive scope within an industry, such as a particular buyer group, a segment of the product line, or a geographical market, is targeted and a cost leadership or differentiation strategy is tailored exclusively for its needs.
- *Time* can be regarded as an additional potential source for competitive advantage (Buhalis 2002). In a society where time and responsiveness are increasingly rare commodities, organizations offering efficient and effective communications and transactions for the entire marketplace will be able to gain competitive advantage.

		Strategic advantage		
		Perceived product uniqueness	Cost advantages	Time
Target market	Industry - wide and broad target	Differentiation	Cost leadership	Efficient and effective communications and transactions
	Particular segments only and narrow target	Differentiation focus	Cost focus	Proactive approach and time savings for particular market segments

Figure 15. Generic strategies for competitive advantage (Buhalis 2002)

Competitive advantage stems from the individuals and the discrete activities that a firm performs. A cost advantage can arise from low cost distribution, efficient production or an excellent sales force. On the other hand, differentiation can be the result of having an excellent design team or being able to offer high quality materials or production. Value chain analysis is a systematic way of studying the direct and support activities undertaken by a firm (Thompson 1990).

ICT can support organizations in achieving the generic strategies and strategic competitive advantage in a number of ways. As already outlined, ICT is increasingly recognized as a critical part of the strategic management of organizations. As we have defined several value creating and value capturing opportunities of the Internet, we will use these opportunities in our research. The identified opportunities can support different possible generic strategies whereas some just address one specific strategy (e.g. niche products or personalization are specific instruments to address the differentiation strategies). Table 6 displays the 12 identified opportunities.

Table 6. Opportunities for competitive advantage

Product bundling	Revenue sharing and affiliate programs
Niche products	Disintermediation
Personalization	Reintermediation
Price lining	Web mining
Smart pricing	Online market research
Dynamic markets	Dialogue-based distributions

To define our framework of competitive advantage in eBusiness we can summarize the findings of the last section. By analyzing how the techno and market logic influences the five competitive forces we define several threats for the industry. On the other hand, these two logics provide opportunities for value creation and value capturing, which can be used to counteract the threats within the business logic. These opportunities can be regarded as strategic initiatives to achieve a competitive position. These threats and opportunities have to be identified for each specific industry.

A competitive analysis often starts with the diagnostic question "Where are we now?". This implies that the organizations are keen to evaluate the existing situation before developing plans for improving their performance. For these processes we conducted a survey with industry experts and a survey with industry players. This provides a broad picture of the state-of-the-art and the importance of the specific threats and opportunities for the industry players. For the formulation of recommendations we have to focus on the questions "Where do we want do go?" and "How do we get there?". This information is extracted from our surveys by combining the data from the expert and hotel survey. Once the situation has been analyzed we need to define strategic objectives for the industry participants.

Figure 16 illustrates our general framework for the evaluation of a competitive strategy. The framework consists of three major steps:

1. First, we use the generic threats and opportunities we defined and adopt them for the specific industry.
2. Based on this generic framework we generate a number of questions that are mostly corresponding with the identified threats and opportunities and evaluate them through an expert survey. In our case, this expert survey was an online survey with experts from the travel and tourism industry. After that, we conducted an industry survey within the accommodation sector in Austria. This survey should provide a picture of the use of the Internet within the sector as well as of the specific role of the threats and opportunities.
3. The information we derived, linked with enterprise information from the industry survey, gives us the possibility to draw a picture of the strategic use of the Internet and the ability of companies to gain competitive advantage. Finally, we will be in a position to formulate several recommendations for the industry players.
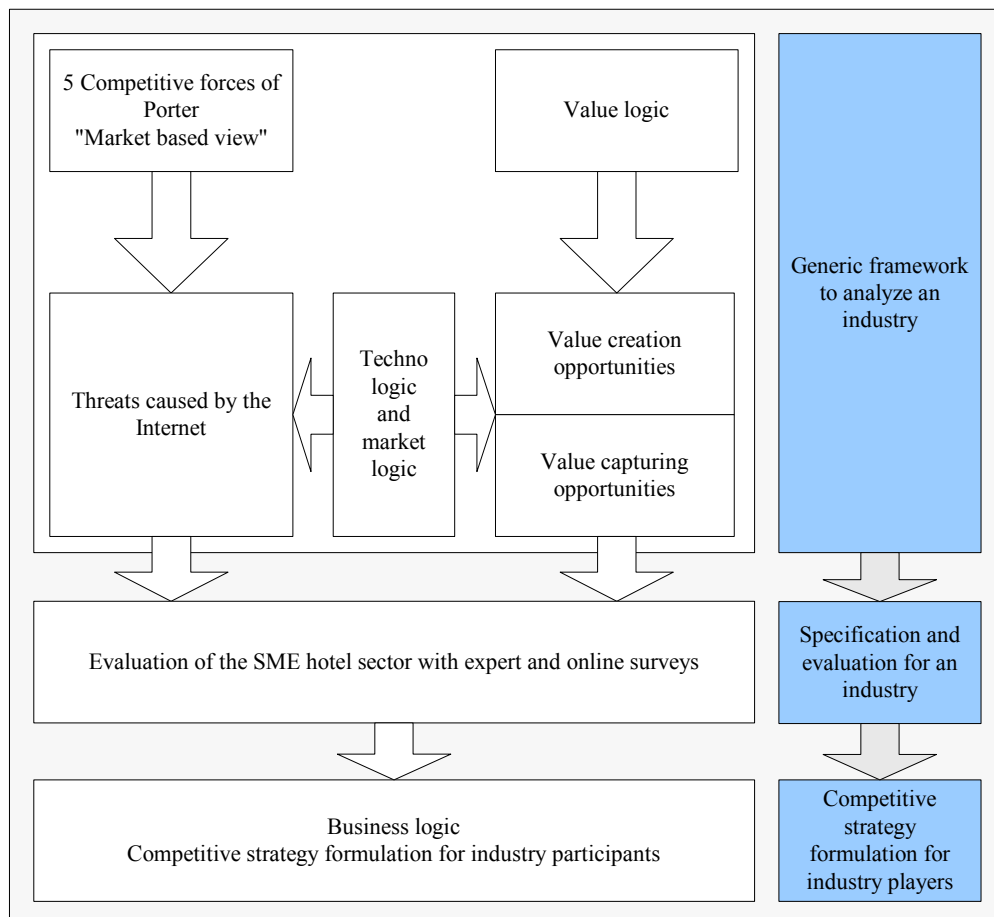
Figure 16. Framework for competitive advantage

Chapter 4

The Tourism Industry

"Selling holidays is like selling dreams." (Holloway, 1998)

4.1 The Industry

The travel & tourism industry is a worldwide industry. The global character of the travel & tourism business - both on the supply and the demand side - represents one of its dominant features as well as challenges for IT and its applications. The industry has some challenging features: the product is a "confidence" good, i.e. the industry relies on information. As a networked industry it is based on cooperation in the creation and distribution of the product, which bundles elements provided by different types of suppliers, i.e. mostly SMEs. These very specific features also explain its importance for economic development (Poon 1993; Holloway 1994).

Travel and tourism account for approximately 11% of the worldwide GDP (according to the tourism satellite account method of the World Travel & Tourism Council (WTTC 2002)). Its demand side is enormous. There will be approximately 1 billion international arrivals in the year 2010. It represents a cross-sectoral (umbrella) industry including many related economic sectors such as culture, sports or agriculture, where over 30 different industrial components serving travelers have been identified. This explains its heterogeneity, and due to its overall SME structure (especially when taking destination's point of view) it has a huge importance for regional development. In the EU, for example, the hotel and restaurant sector comprises of more than 1.3 million enterprises. This is about 8.5% of the total number of all enterprises. 95.5% of these enterprises are very small (1-9 employees). The supply and the demand side form a worldwide network where both production and distribution are based on cooperation.

The product is both perishable and complex, e.g. a hotel bed not sold for one night represents a lost income. Suppliers are in a risky situation that can be reduced if access to information about "stocks" is available. The tourism product itself is a bundle of basic products, aggregated by an intermediary. To support this, basic products must have well-defined interfaces with respect to consumer needs, prices or distribution channels.

The demand for tourism is met by the concentrated marketing efforts of an enormous variety of tourist services. Together, these services form the world's largest and fastest-growing industry. The travel and tourism industry can be characterized as a conglomerate of all individuals and organizations that are involved in the production, distribution and consumption of travel and tourism products (Kaercher 1997). Because some of these are important to the generation and satisfaction of tourist needs while others play only a peripheral or supportive role, it is difficult to define the tourism industry (Holloway 1994).

Figure 17 provides a structural view of the travel and tourism market. It differentiates between the supply and demand side and the respective intermediaries. Links mark the relationships and the flow of information. It only shows the most relevant links with the nodes indicating the relevant types of players in the field. On the supply side, we denote enterprises such as hotels, restaurants, etc. with "primary suppliers". Those are mostly SMEs. One should note that with respect to a functional differentiation, these companies are on the same level as "big" players such as airlines.
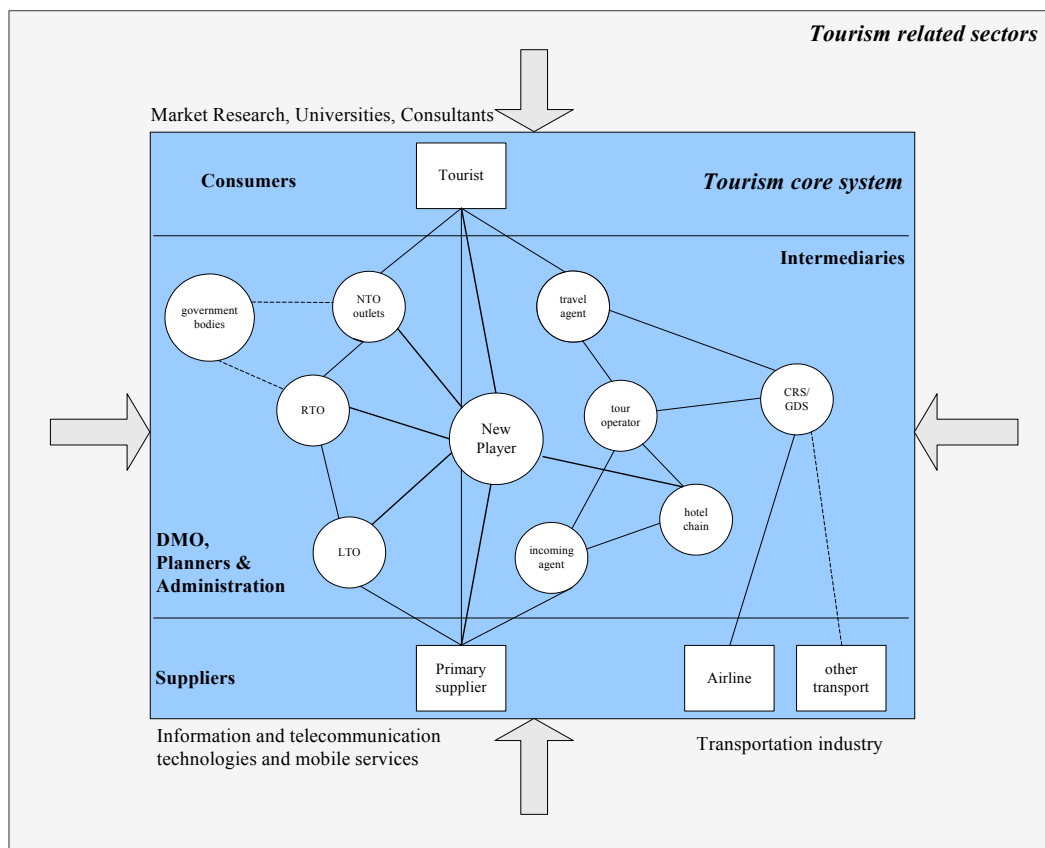
Figure 17. Structural view of the market (adopted from (Werthner and Klein 1999))

Tour operators can be seen as product aggregators. Travel agents act as information brokers providing the final consumer with relevant information and booking facilities. CRS/GDS include also other products such as packaged holidays or other means of transportation. They provide the main links between tour operators and travel agents. The intermediaries on the right-hand side (in Figure 17) can be seen as the "professional" connection between

supply and demand, whereas the left-hand side is relevant for destination management, planning, administration and branding of a destination. Normally, these entities have to act on behalf of all suppliers within a destination and are not engaged in the booking process. The New Players are companies within the system that use ICT to link customers and suppliers. The links to governmental bodies are dotted lines indicating that these Destination Marketing and Management Organizations (in the US: Convention and Visitor Bureaus - CVB) are often governmental organizations. The upstream information flow towards market consists of product information, whereas the downstream flow reports on market behavior and competitor performance mostly represented in terms of statistical aggregates. Both information flows create a tourist information network tying all market participants together and apparently, reflecting the economic relationships between them. This *"tourism core system"* as an umbrella industry is in close connection to other industry sectors such as information and communication technologies, research institutions, marketing industry, culture, sports or consumer goods industries. Information and telecommunication technologies play a specific role in supporting the network. Services as the main components of the tourism products are non-material and bilateral goods, thus, the focus is on the relationship between suppliers and consumers.

Information needs of consumers and the related business processes of the supply side need to be matched. This is also depicted in Figure 18 where the respective interface consists of the service delivery (product creation & distribution), already heavily supported by IT, enabling either direct communication or via some intermediary organization. The traveler should have access during her/his entire life cycle before and during travel as well as at the destination.
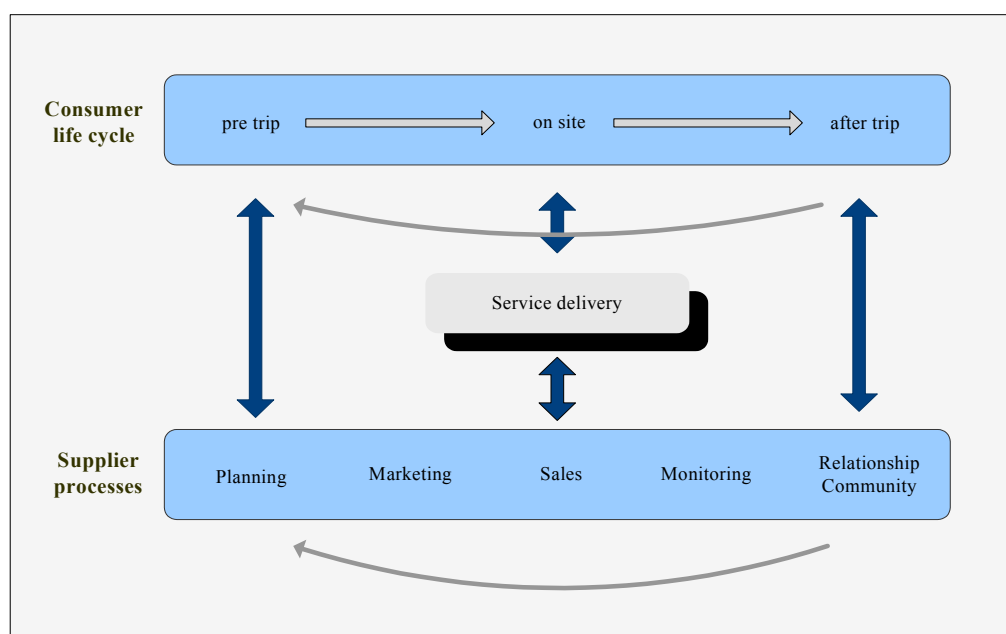
Figure 18. Consumer and supplier processes in the tourism industry (adopted from (Werthner and Klein 1999))

We can summarize that Travel and Tourism is an information business, the tourism product is a "confidence good" and a priori comprehensive assessment of its qualities is impossible. Tourists have to leave their daily environment; they move for consuming the product. Thus, the product itself cannot be tested and controlled in advance. At the moment of decision-making, only an abstract model of the product, e.g., its description, is available. Thus, decision making and consumption are separated in time and space. This characteristic of tourism products requires information on both, the consumers' and the suppliers' sides, entailing high information search costs and causing informational market imperfections (Werthner and Klein 1999). These, in turn, lead to the establishment of specific product distribution and - comparably long - information and value-adding chains.

4.2   The Importance of Travel and Tourism

According to the World Tourism Organization (WTO), a tourist is a person who spends at least 24 hours outside her or his normal place of residence, in her or his own country or abroad, with the purpose other than a permanent paid activity at the destination. Leisure and business are the main motivations for traveling. The world tourism is the largest creator of jobs in many countries providing employment to estimated 260 million of people, which are employed in a direct or indirect form. The travel industry contributes around US$ 4 trillion in growth output annually and about 11% to world GDP (Dettmer 1998) and about 13.4% in the EU15. Over the last thirty-six years, the tourism sector has grown an average of 6% a year in arrivals and the WTO forecasts about 1 billion international tourists by the year 2010. Figure 19 shows the market shares of tourist arrivals in the different regions for 1997 and 2020 estimated by the WTO. It outlines the importance of European destinations with a market share of 59% in 1996. In the future, the WTO estimates that Europe will continue to be the most visited destination in the World (with about 700 million tourists in the year 2020) but also countries in East Asia and the Pacific will continue in strong growth and will become much more important than today. It is estimated that the countries of East Asia and the Pacific will overtake America by the year 2010 and become the second most visited destination worldwide.

However, these impressive figures must not be taken for granted. Millions of jobs in the world tourism sector have been lost due to political turmoil, the global economic downturn and growing unease among many travelers with little prospect of any recovery in employment in the sector before 2005. During 2001 and 2002, tourism-related businesses shed some 6.6 million jobs worldwide – putting one out of every 12 workers in the sector out of a job. After several years of 4% growth or more, stagnant demand for travel and tourism last year caused a continued loss of jobs with no sign of a turnaround in 2003. Already reeling form 9/11, which cut growth in the industry for the first time in two decades, tourism has been hit by a host of other woes: the war in Iraq, additional terrorist attacks, the SARS virus and a very dismal economy. The World Tourism Organization recently called the current climate the worst in living memory.
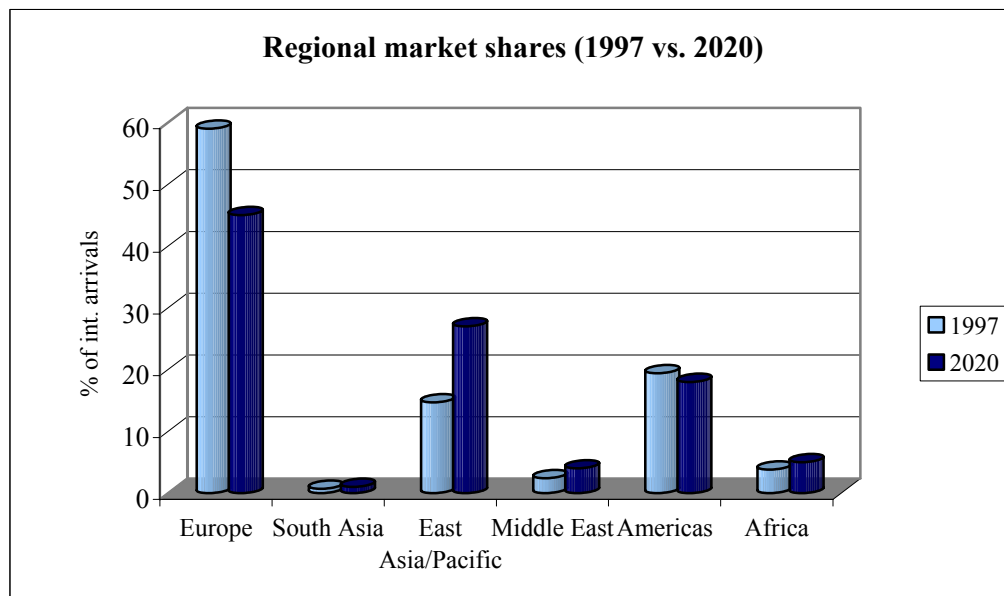
Figure 19. Regional market shares international tourist arrivals in
1997 and 2020 (WTO 2000)

The need to counteract is widely acknowledged in the European Union. Mr. Erkki Liikanen, member of the European Commission responsible for enterprise and the information society, acknowledges the strategic role of "strengthening the role of tourism on the EU agenda." In his address to the European Tourism Forum 2002 he confirms, "*we also will continue considering how we can better contribute to the efforts and activities of better promoting Europe as a set of destinations, including the issue of facilitating a European portal*." (Liikanen 2002)

In Austria the tourism industry plays a very important role for the economy. The tourism industry is responsible for approximately 6% of GDP in Austria. In 1996, the total foreign currency earnings from tourism amounted to € 10.78 billion, a sum that was equivalent to 27% of Austria's merchandise trade deficit. In terms of per capita income in foreign currency from tourism, Austria is the world's leading country with € 1,338.6 annually. Regarding the worldwide tourism income Austria is behind USA, France, Italy, Spain, and Great Britain on 6th position. The number of beds and overnight stays are the most important statistical measures of economic effects of the tourism industry. In 2002, about 1.15 million guest beds have been registered and in the same year the number of overnight stays amounted to 116.5 million. Visitors from abroad accounted for about 85.79 million and domestic guests for about 31.01 million. Thus, foreign visitors represented 73.5% of the total overnight stays. Traditionally, most of the tourists come from Germany - in 2002 they counted for approximately 53.52 million overnight-stays (around 62% of the total). Also very important countries of origin for arrivals are Italy, Netherlands, Sweden, France, Great Britain, and Belgium. The Chamber of Commerce and the Ministry for Economics and Labor (Department Tourism) provide the information (see Table 7) about the economic impact of travel and tourism in Austria.

Table 7. Overnight stays in Austria

	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02
Domestic	28,347,527	29,140,848	30,273,612	31,087,274	31,250,455	31,033,085
Foreign	80,503,923	81,652,451	83,049,849	81,973,707	83,266,822	85,463,651
	108,851,450	*110,793,299*	*113,323,461*	*113,060,981*	*114,517,277*	*116,496,736*

Statistics Austria and WIFO (Austrian Institute for Economic Research) have jointly accepted the task to develop a Tourism Satellite Account (TSA) in the course of a common project. The introduction of the TSA concept has considerably changed the previous monetary dimension for domestic leisure consumption. In other words, the Austrian expenditure for domestic travels according to the TSA concept was around € 11.01b in 2001 (+ 6.5% over the previous year), thus surpassing the figure shown so far by € 7.82b. The major part of the Austrian domestic expenditure was spent on leisure travels which accounted for € 8.79b, of which the expenditure for day trips (€ 3.60b) was markedly lower than that for overnight stays (€ 5.19b). In the context of official and business travels Austrians spent € 2.22b on the domestic market. The application of the TSA concept further shows the previously underrated role of day trips in the amount of € 4.96b, which in a general comparison was lower by only € 1.09b than the expenditure of domestic consumers staying over night in Austria. In 2001 the expenditure of Austrians staying in holiday houses amounted to approx. € 852m. This amount contains only current costs but no investment or real estate costs, as this would considerably raise the relevant expense position. After taking account of the revenues from international tourism to the tune of € 13.21b (+7.5%), the total tourism turnover achieved € 25.08b (+6.9%, previously: € 16.48b) in Austria according to the TSA concept, including the expenditure of Austrians for domestic stays and week-end houses. Considering all directly and indirectly induced effects of tourism, the sector's value added share of GDP is 9.5% in 2001 according to the TSA concept, while this share was only 6% based on traditional calculating methods.

59.8% of total expenditure in tourism (counting only the expenditure of foreign and Austrian holidaymakers staying overnight) were spent on accommodation and food in 2000, thus reaching a volume of € 10.25b, of which € 3.86b (37.7%) were spent on accommodation and € 6.39b (62.3%) on food. Expenditure for transport reached a total volume of around € 5.81b, i.e. a share of 13.5% of total expenditure. At the same time, the expenditure for individual transport (€ 3.31b) was considerably higher than for public transport (€ 2.5b). Culture, education and entertainment (including expenditure for museum visits) in 2000 attracted a demand volume of € 2.75b or 6.5% of the total expenditure for tourism and leisure. Approx. 95% of the total expenditure for this item was contributed by Austrians. The largest proportion of this expenditure includes newspapers, magazines and books, accounting for one-fourth of this expenditure group. Of the remaining expenditure, the most important items are the services of travel agencies and tour operators. In 2000 Austrians spent € 2,83b on travel agents.

4.3   The Structure of the Tourism Market

The tourism product consists essentially of two parts. The first part includes transportation, the accommodation, and attractions. The producers of these services like air, sea, and railroad carriers, hotels and other forms of tourist accommodations, and the various forms of attractions like skiing resorts, fun parks and natural attractions are called the service suppliers. The second part includes the service sector of the industry which is used to deliver these products to the consumer (see Figure 20). These distribution channels of the tourism industry are very important, because the products of the tourism industry are invisible services, incapable of feel, smell, touch and inspection at the point of sale (Poon 1993; Holloway 1994; Sheldon 1997). The travel products are also perishable. They must be sold within a certain period of time or they become worthless.

Accommodation		Service (Tour Operator Travel Agent Tourist Board)		Products (Combination of Services and Products)
Transportation	+		=	
Attraction				

Figure 20. The product creation in the tourism industry (Dettmer 1998)

According to the different literature resources, we can define two main channels of distribution in the travel and leisure industry:

- The first way of distribution is *direct to the tourist* via direct marketing, phone or fax, Internet and advertising in different kinds of media.
- The second, more common ways is selling the products and services *through intermediaries* to the customers.

An important difference between the travel industry and other industries is the status of the retailer (e.g. the travel agents). Travel retailers do not buy goods and services and they do not mark up a price. They get paid a commission or a percentage of the selling price by the wholesaler or the supplier. The structure of the distribution flow in the tourism industry has already been outlined in Figure 17.

The simplest way in the distribution system seems to be the direct contact between the consumer and the supplier. Customers can either use a phone, fax or the Web to make a reservation or go in person to the ticket counter or reservation desk. Suppliers make a greater net profit per unit if they sell directly to the traveler. For example, a flight ticket (worth € 500) costs the traveler the same € 500 when it is received directly from the airline or via a travel agency. On the other hand, if it is bought via the travel agent, the airline has to pay about 5% commission to the retailers and has only a net profit of € 475 (in reality this commission building process is much more complex). So it is easy to understand why, for example, airlines seek to sell directly to the traveler, especially when we consider that the distribution costs are the largest part of the airline operating expenses. According to the

reviewed literature, the following main players can be defined in the traditional distribution chain of the travel and tourism products:

- suppliers,
- consumers,
- tourist boards (national, regional, and local tourist offices[1]),
- tour operators,
- travel agents,
- reservation systems (CRS/GDS).

In Figure 21, we take a short look at the possible ways of distribution. It shows that theoretically, each supplier can sell his product directly to the consumer. Already the phone gives every consumer the possibility to contact a supplier and purchase a service but it still causes costs for the supplier and the consumer. There are telephone and especially labor costs, and for the consumers there occur high searching cost, especially if they are not sure what to book. The Internet enables to minimize these costs - the labor shifts to the site of the consumer. On the other hand the Internet reduces the searching cost for the consumer. Especially standard products, which are easy to sell and have no high consulting intensity, will be traded directly in the future.
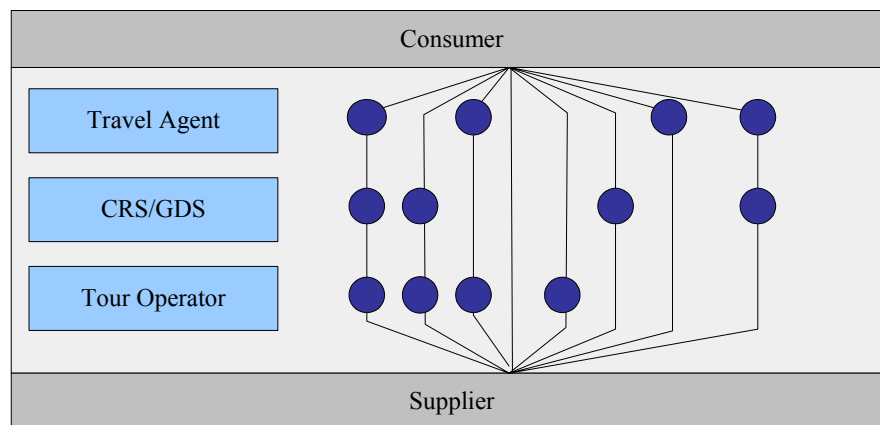
Figure 21. Possible ways of product distribution in the tourism industry

In the next subsection we will take a detailed look at the different market players and analyze their roles in the travel and tourism value chain. As the accommodation sector is discussed in chapter 5, we will primarily focus on the different types and functions of the intermediaries inside the industry.

4.3.1 The Suppliers

Tourism is the outcome of travel and stay of people. The suppliers or the principals of the tourism and travel industry build the core part of the industry. They are an essential part of the supply side of the market by providing the services and products for the consumer, i.e.

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[1] Within the thesis we use the following terms: national tourist office (NTO), regional tourist office (RTO), local tourist office (LTO)

the tourist. The tourism product consists essentially of transport, accommodation and attractions (Holloway 1994), and the service that is often provided by travel agencies or tour operator, the intermediaries.

Therefore, we can define the following key players for the supplier side:

- passenger transportation (Airlines, Rail, Road and Cruise carriers),
- hotels and other accommodation facilities,
- different forms of attractions (e.g. Disneyland, Louvre, Vatican).

The industry structure is very fragmented. SMEs prevail (e.g. the accommodation sector) in number but the supplier sector is dominated by larger companies like airlines and hotel chains. The development of transport has had a major impact in the growth and direction of tourism development. As the center of gravity of this thesis is the accommodation sector, we will not discuss the structure and business of the different suppliers in detail.

4.3.2   The Intermediaries

As we already have discussed, we know that the tourism product can be distributed by several channels and ways. In general, this task is to be fulfilled by the intermediaries of the industry. As the travel and tourism industry is an information-intensive industry, the role of these intermediaries was always essential to close the gap between the suppliers and consumers. Travel intermediaries of all types use information intensely and therefore need information and communication technologies to process that information. The more information they can access electronically, the more timely, accurate and efficient services can be provided for the customers. We have to distinguish different forms of intermediaries that are explained in the next subsections.

4.3.2.1   Public Intermediaries

Tourist boards in their national, regional and local forms play a very important role in the tourism and travel industry network. Especially in Austria where many tourists are booking directly or via tourist information centers and the majority of the tourism enterprises are small or medium organizations, tourist boards are essential for the product and information distributions. Their main purpose is the marketing of a province, region or town and to provide tourism information for the tourists and organizations like tour operators and travel agencies. The provided information of tourist boards makes it possible that many tourists plan their holidays without using a travel agency or tour operator. Within the past 10-15 years many of these organizations in this sector made a transformation from a passive, public funded information supplier to a very active private marketing organization. Especially in Austria, we could see a concentration on *Destination Marketing Organizations (DMO)* focusing on different strategies. Tourism organizations can be publicly or privately funded and can act as a simple information provider or as a classic intermediary by distributing tourism products and services.

The main activities of a DMO can by divided into 4 categories:

1. *Information:* Distribution of information about the destination, region, suppliers and the tourist infrastructure within the region to the tourists and travelers, but also media and press contacts. It can also be seen as the external communication.
2. *Communication:* Within the region or destination among the different suppliers. The tourist board acts as information broker within the region (e.g. the tourist boards aggregate the information about the free rooms within the destinations and gives this information to the tourists). One very important task, especially in Austria, is handling of guest registration and the generation of different statistics and reports.
3. *Distributions:* DMOs can also actively sell and distribute products to the tourists. Some DMOs run call centers where tourists can book products and services.
4. *Marketing:* The definition of a marketing strategy is one of the main activities of DMOs, which also includes the design, production and distribution of the different marketing materials.

4.3.2.2   Private Intermediaries

Tour Operators can be viewed as wholesalers because they buy a range of different touristic products such as airline seats, hotel rooms or coach transfer facilities in bulk and package them for subsequent sale to travel agents or to the tourist directly. Tour operators need the knowledge of the product availability and the demand. Their strength lies in their ability to buy airline seats, hotel beds and other travel and tourism products in mass (Holloway 1994; Kaercher 1997; Dettmer 1998). They also get their information from the tourist boards. The idea of buying a package of transportation and accommodation services established itself in Western Europe in the 1960s. Package holidays were extensively consumed by tourists from the Northern industrial countries of Scandinavia, West Germany and UK. By 1965, just over 1 million holiday visits to Western Europe from UK were inclusive tours by charter - already twice the number of independent holidays. Tour operators spurred on by success over time, achieved considerable buying power over air seats and hotel capacity. Most European tour operators also have their own charter airline, buses and hotels (Poon 1993; Kaercher 1997). Nearly half of all holidays sold in Germany and the United Kingdom were packages within the last few years. Today, the big players within this sector are TUI, Thomas Cook, Kuoni, Airtours, Thomson or Rewe Touristik.

Kaercher (Kaercher 1997) discussed the reinvention of the business activities of major European tour operators. He has shown that they are changing their activities both in the production and distribution of the holiday packages. He outlined that:

▪   They are developing more flexible tour operation systems.
▪   They develop on-line program-to-program links between their systems and other information, reservation and booking systems within the package holiday business.
▪   They are developing corporate networks and link offices and subsidiaries worldwide.

Travel Agents form the retail sector of the distribution chain, buying travel services on request of their clients. They carry no stock simply acting as an intermediary between the tourist and the supplier. They normally do not charge for their services, receiving their remuneration in form of commission on each sale they negotiate (Holloway 1994). Many functions executed by travel agents and operators are similar, the most distinctive difference between them is that tour operators sell their travel product in their own names. For the consumers, the greatest advantage is that most travel intermediaries can provide professional assistance and personalized advice. They can also provide information on a greater variety of travel options than any single supplier. Travel agencies are the most ubiquitous travel intermediaries varying in size from LTE to SMTE. They can distribute products directly from the suppliers or as packages from other intermediaries like tour operators. They usually also have more influence on suppliers than individual travelers do. The labor represents in generally half of an agency's costs. To reduce these costs, many agencies are offering electronic booking solutions to customers. But all of these self-booking systems use the existing CRS/GDS or airline host systems where still CRS/GDS costs occur (Eastman 1996).

Figure 22 displays the value structure of a typical holiday package where different products and services are combined to one packaged product. The value chain includes accommodation, food, trips, guides, transfer service, flight operators, tour operators and travel agents. The figure also illustrates that the intermediaries take over 20% of the package value for their services. These are distribution costs that either the consumer or the supplier has to pay. Within this value chain we have not yet included the costs for CRS/GDS or for credit card processing that mostly intermediaries have to pay.
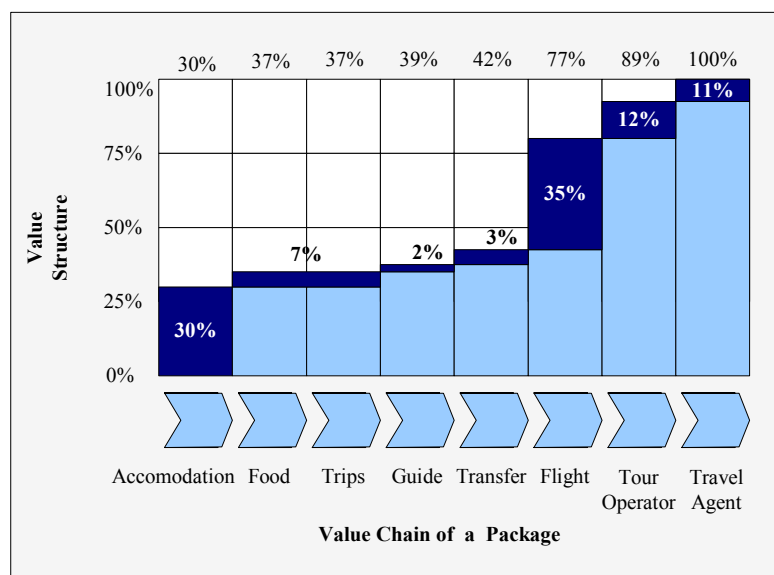
Figure 22. Value structure of a holiday package

Today, these structures of the market are changing; especially the intermediaries (tour operators and travel agents) are getting more and more under pressure. Simple products are directly distributed by the suppliers, commissions are reduced or eliminated. For example, for airlines the product distribution accounted with about 20% of all costs for the second-

largest piece behind costs for employees. The concentrated competition on the market and the global crisis forces them to reduce cost. Over the last few years more and more airlines reduced their commission for travel agents or other distribution channels and increased direct distribution. These changes are primarily caused or allowed by the new information and communication technologies.

4.4 Business is Changing

When a tourist decides to go on a trip and books an offer, the product does not exist materially. It cannot be investigated or inspected. Usually, the decision process depends only on the information given by the source being used. Therefore, the industry is highly influenced and changed by ICT. ICTs are indispensable to the tourism industry and both are imperative partners in many ways today. The IT revolution has profound implications on tourism management, by enabling efficient cooperation and offering tools for the globalization of the market. Today, tourists show a more dynamic behavior, they ask for more and better information. Our society is changing into an information and knowledge society. Many companies and organizations in the tourism industry are using new information technologies today. It is not just a computer or a simple network that is used by a company like a hotel, it is an entire system: the networks of computers and communication technologies that are used by the whole industry. All players have to become users to ensure their own survival and competitiveness. Many players in the tourism industry already use information technologies (see Table 8) for their business. Each of these technologies is capable of full integration with others - and usually is fully integrated. The use of digital electronic methods and tools to gather, process, share and distribute information and services throughout the tourism value chain can provide a competitive advantage.

Table 8. Examples of ICT in the travel and tourism industry

Computers and entire range of hardware	Destination management systems (DMS)
CRS/GDS	Property management systems (PMS)
Office automation	Management information systems (MIS)
Office management tools (CRM, eMail,…)	Call centers and communication systems
Internet/Intranet	CD ROMs, kiosk systems

Information has become the essential competitive factor in the tourism industry (Sheldon 1997). Poon (Poon 1993) describes four profound implications for the travel and tourism industry caused by information and communication technologies (ICT):

- ICT changes the rules in the industry.
- ICT is substantially altering the role of each player in the value-creation process of the industry.
- ICT facilitates the production of new, flexible, and high-quality travel and tourism services that are cost-competitive with mass, standardized, and rigidly packaged options.
- ICT helps engineer the transformation of travel and tourism from its mass, standardized, and rigid packaged nature into a more flexible, customized industry.

The Internet influences every part of the tourism network (see Figure 23). It enables each player including new ones to get in contact with other players in the value chain, in particilar with the consumer. This affects the whole industry, its value chains, and the way the companies make their business within the system. It is a possible instrument to close the gap between local suppliers and the demand side (Baker and Reinders 1997; Werthner and Klein 1999; Buhalis 2002; Wöber, Frew et al. 2002). It offers also small, local players to have direct customer contact and the chance to sell their products on the global market. The increasing use of the Internet in tourism service allows tourists to take a much more active role in the production of the tourism product. The need of tour operators and travel agents will not go away, but the role of these organizations and their business processes are changing.
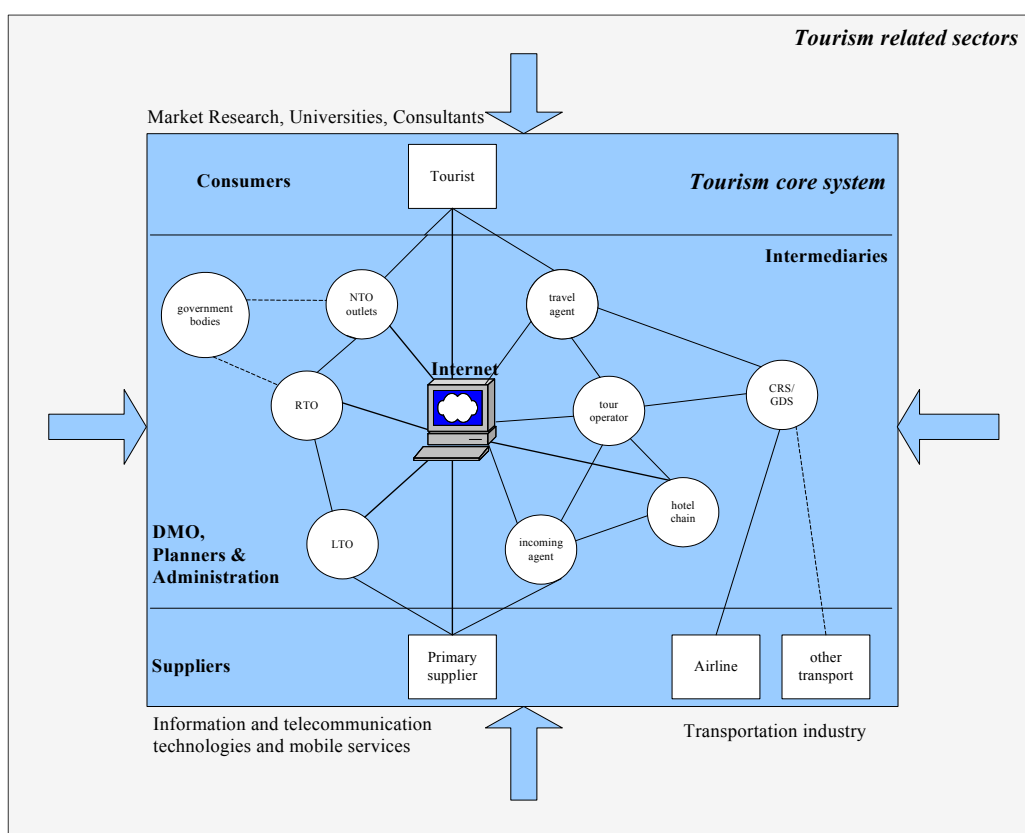
Figure 23. The Internet in the tourism industry (adopted from (Werthner and Klein 1999))

The Internet offers a new distribution and communication channel that has to be used by these organizations if they want to stay in business. The big suppliers like airlines and hotel chains will still focus on doing their sales via GDS/CRS systems, but will also know that the Internet offers them a new, direct distribution channel for their products. For example, airlines in the USA launched the website Orbitz (Orbitz 2003), a joint venture between the airlines providing the customer an online booking engine by bypassing the CRS/GDS systems. By using the Web, it will be possible to reduce costs for travel agent commissions and CRS fees and increase the load factor at the same time. European Airlines started a similar project with the platform Opodo (Opodo 2003). Especially simple products like airline tickets and hotel rooms can be sold easily via the Web with higher net profit for the

suppliers. The Internet influences every part of the tourism network. It enables each player and also new ones to go in contact with other players of the value chain and especially, with the consumer. This is illustrated by Figure 23. This will affect the whole industry, its value chains and the way the companies make their business in the system. The Internet is a possible instrument to close the gap between local suppliers and the demand side (Werthner 1996; 1998; Klein and Güler 1999; Werthner and Klein 1999; Klein 2002).

4.4.1 Online Travel - Market Overview

In fact, tourism is the leading application in the B2C (business-to-consumer) area. Although the slow economy and current political developments have negatively influenced eCommerce, it is still flourishing in the tourism sector. Whereas in other industries there is a stronger hold onto the traditional way things have been done, in the travel/tourism industry we are witnessing an acceptance to the extent that the structure of the industry and the way business is conducted is changing. The Internet is not only used for information gathering; there is an obvious acceptance of ordering services over the Internet. And it is not just a matter of only trying one or two services; it applies to all travel and leisure services. A new type of user is emerging. The Internet users seem to accept becoming their own travel agents to organizing their trips themselves and building their own travels trips.

A majority of about 68% of online travelers consult the Internet to get information on destinations or to check prices or schedules. Online travelers carry out a variety of planning activities on the Internet. According to Cook (Cook 2001), the most popular ones are searching for maps or driving directions, searching for airfares/schedules and looking for places to stay and things to do at the destination. Figure 24 demonstrates the most popular online trip planning activities in the USA. In the first quarter of 2002, travel and tourism accounted for a total turnover of approximately US$ 7 billion - an increase of 87% from the first quarter of 2001 (comScore 2002). The global traffic to travel websites hits a new record in January 2002 with 94.3 million visitors. Regarding the accommodation sector, consumers made 46.7 million hotel reservations worldwide in 2001, netting € 12.9 billion in revenue according to the *Hotel Electronic Distribution Network Association* (Hedna 2002). In addition, 32% of US travelers this year have used the Internet to book travel arrangements. Forecasts state that by 2007 30% of all B2C transaction in the European tourism domain will be done via the Internet, at least in the German speaking countries, and travel and tourism will be an essential part of it. However, other research reveals other numbers (differing for nearly 100% only for the year 2002). These statistics have the problem that they refer to different interpretations and are based on varying definitions. There are broad and narrow definitions: either distinguishing between *eBusiness* and *eCommerce* (see Chapter 2) or not, and using different variables and measurement methods. However, all those definitions fall short in one important aspect as we can see in the tourism case: they are all very transaction and business oriented and ignore the fact that the Web is also a medium of curiosity, of creating communities or just having fun, all of which may or may not result in business. Especially the tourism product has to do with emotional and joyful experiences, with leisure and fun; it is not just business.
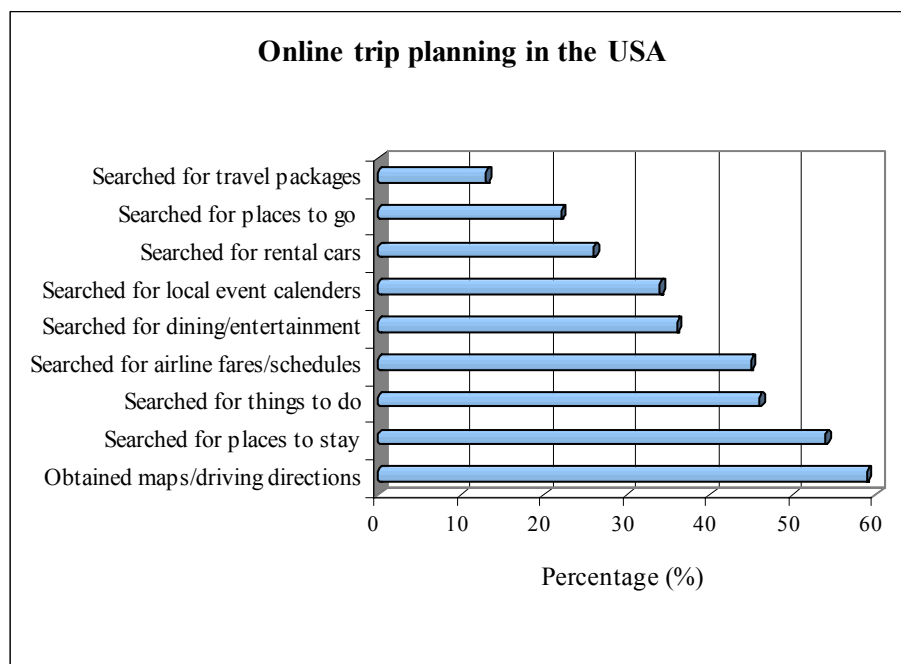
Figure 24. Online trip planning in the USA (Cook 2001)

In Europe, the traffic to travel websites grew by 75% in 2001, with the UK representing the biggest online travel market. Marcussen (Marcussen 2002) (see Table 9) believes that the European online travel market will be worth € 14 billion by 2006. Online travel sales in Western Europe were worth € 4.4 billion or 2% of the total travel and tourism market in 2001. Air travel accounted for 59% of total online travel sales followed by hotels and package tours each reaching 12% of sales. Rail travel and car rentals followed with 9% and 4% respectively. The UK alone accounted for 34% of online travel sales followed by Germany representing 24% (Marcussen 2002). Online travel sales are expected to increase by 3.65% to approximately € 8.4 billion in 2003.

Table 9. Trends in overall online travel market size - Europe 1998-2006 (Marcussen 2002)

W.Europe Year	Market billion €	Internet sales billion €	Internet sales % of market
1998	192	0.22	0.11
1999	200	0.8	0.40
2000	208	2.56	1.23
2001	216	4.43	2.05
2002	223	6.46	2.90
2003	230	8.4	3.65
2004	236	10.3	4.36
2005	244	12.2	5.00
2006	251	14	5.58

The Internet is now the leading source for travel research. All market players are battling to make or gain market share. This brings also new players like Expedia, Tiscover, or Travelocity on the market recognizing tourism as an information market that offers them new business opportunities. Such companies act as new intermediaries using the Web for their business and bypassing the classic way of distribution in the tourism industry. Many of these companies have their background in the tourism industry but there are also many new players that grew up with the Internet. The largest and best known travel sites on the Internet are Expedia from US Networks and Travelocity from Sabre. These sites act as online travel agencies, that have already gained many online customers and they are among the largest agencies in the U.S.A. Travelocity, for example, reported the first US$ 1 million day already in August 1998. Travelocity is the website "most often used" for air purchases, but Expedia is "most often used" for hotel reservation.

Chapter 5

Competitive Advantage for the Hotel Sector in Austria

In this chapter we concentrate on the implications of ICT for the accommodation sector in Austria and more specifically for the small and medium sector (SME) section of the market. By the evaluation of our framework of competitive advantage in eBusiness we explore the major threats and opportunities for SMEs in this industry section. The Internet is proposed as a potential strategic tool for competitive advantage and to generate value. It is understandable that larger tourism enterprises took greater advantages of these technologies in an earlier stage. Normally they have the resources and expertise to use and introduce new technologies within the organizations. In contrast, small and medium sized enterprises are more reluctant to introduce technologies and therefore adopt more traditional management practices.

This section is the heart of the second part of our thesis with the objective to specify the threats and opportunities for the accommodation sector. We will take a close look at the accommodation sector in general and use the model of Porter to analyze the industry sector. In addition, we will outline the industry in Austria as this study concentrates on this market.

5.1   The Accommodation Sector

The accommodation sector comprises many different forms of sleeping and hospitality possibilities. Hotels are the most widely known forms of overnight accommodation. The total stock of beds in the world is estimated at around 12.6 million, with an average occupancy level of 44%. If we try to categorize the sector, we first have to divide the hotels into two categories identified by their size: *Into large-sized tourism enterprises (LTE)* and *small and medium sized tourism enterprises (SMTEs)*. The *European Commission* defined the following criteria for an SME:

- the number of employees is limited to fewer than 250 (0-10 micro, 11-50 small, and 51 - 250 medium sized),
- it must be independent (may not belong to a large company),
- the turnover must be less than € 40 million,
- the balance sheet total must be less than € 27 million.

Furthermore, when accommodation facilities are classified, the number-of-beds-criterion can be applied, but also a wide range of qualitative criteria can be used to classify the organizations. We can, for example, distinguish between the following different categories of accommodation facilities (Haenssler 2001):

- Hotels,
- Motels,
- Private guest houses,
- Farmhouses,
- Bed & Breakfast,
- Apartments.

From country to country, a number of other forms of facilities exist, thus a general worldwide classification is missing. Additionally, the mass tourism has developed large chains and corporations in the accommodation sector. Leading world chains include companies like Marriot, Hyatt, Ramada, Bass Hotels, Holiday Inn, Accor, or Best Western Hotels. Such hotels or chains aim to create an international und uniform marketing image to assist their sales around the world. Compared to the United States, Europe is characterized by a low level of brand penetration. The highest brand penetration rates in Europe are in France followed by UK and Germany. More than 90% of the accommodation establishments worldwide are small, independent, flexible, seasonal and family-managed (Buhalis 1994; Morrison 1994; Buhalis 1996; Frey, Roland et al. 2000). This is evident in several European countries, especially in Austria. The SME businesses tend to be owner-managed (Sheldon 1997) and are unlikely to be part of a chain or marketing consortium and are traditional and conservative in operations.

Depending on the size of the company, the five competitive forces are influenced in different ways. In general we can identify the following five competitive forces for an accommodation facility:

- the competitors in the business where the supplier is operating (other hotels),
- the customers are formed by the tourists (who purchase the product directly), the travel agents, and tour operators,
- possible entrants, i.e. any company from inside or outside the travel and tourism industry wanting to establish a business in the accommodation sector.
- the basic suppliers,
- substitute products: any product that might substitute a product (e.g. camping vs. hotel room).

The rapid development of ICTs introduces both opportunities and threats for traditional SMEs. By altering the value chains of organizations it also changes the five competitive forces within the industry. ICTs provide tools for enterprises to manage and market themselves in a more efficient and effective way as well as to develop interfaces with the entire range of their stakeholders.

With respect to our identified opportunities, we can define the following possible strategies to increase the competitiveness:

- Technology can be used to promote products in a cheaper and more interactive way. Through the use of multimedia information (sound, image, video), customers are able to better understand the products (e.g. hotel room) without the need for specialized personnel on the service provider side. This also saves money as well as saves time in terms of printing (quickly outdated) advertising material, handling sales through a phone hotline and delivering paper tickets.
- ICT can definitely enhance some product attributes, especially for the accommodation sector where most attributes are intangible. In our case, electronic commerce can add to the convenience of getting information about the product. It is closing the information gap between the customer and hotels.
- Technology can also help to maintain and enhance relations with the customers, for instance, memorizing their preferences and anticipating their needs or targeting them with specific offers. Mass-customization is another avenue, offering customers products especially targeted to their needs, for instance, by integrating sub-products from different suppliers and repackaging them in one offer.

On the other hand Morrison (Morrison 1994) explains that for SMEs to participate in the global marketplace, three types of participation expenses are required, namely economic in commission and fees, operational as a degree of autonomy, and flexibility and individuality of SMEs. Hence, SMEs are the weakest and most vulnerable part of the hotel industry that are at risk of losing sustainable market shares. This is also evident in a Price Waterhouse study (Masschelein and Van Buyten 2002) which showed that modern technologies are quite well penetrated within the industry but only half of the tourism SMEs have incorporated the Internet in their day-to-day activities. Especially micro companies are lacking experience.

5.1.1 The Accommodation Sector in Austria

The accommodation and catering sector in Austria comprises about 39,000 enterprises. The added gross value achieved by this sector at production prices amounted to € 8.42b in 2001, thus accounting for 4.3% of the total sum of economic sectors. Labor costs and value added per employee are lower than in most comparable economic sectors based on statistically relevant data. Despite a significant trend towards larger enterprises, the structure of the accommodation and catering sector is still essentially one of small-scale enterprises. On a yearly average the sector comprised 150,500 employees. 36,400 persons were self-employed. In comparison with the overall economy, the unemployment rate in the accommodation and catering sector is relatively high.

A look at the supply-side shows an adjustment to demand in the direction of an improvement of quality. Between 1990 and 2000, the number of hotel beds increased by 33.4% in 4/5-star. 3-star hotels also increased their capacity until the mid-1990s, when the number of beds decreased slightly. Since 1990, 2/1-star hotels have reduced their capacities by 45.6%. Also the number of beds in private accommodations has declined, while the

number of beds in holiday houses and apartments went up during the period 1990-2001 from 123,000 to 228,300. A considerable part of this capacity increase was due to reconstructions of already existing accommodations (e.g. in private houses).

In 2001, the occupancy rate was lowest at 19% for private accommodations and highest for 4/5-star accommodations at 46.3%. In summer 2001, the average occupancy rate dropped to 28.3%, i.e. around 3% below the winter rate of 31.2%. From 1990 to 2001, the occupancy rate in the summer season was down in all types of accommodation. Today, about 20,000 facilities are member of the Chamber of Commerce in Austria (WKÖ), and about 8,400 are represented in the database of the destination management system Tiscover (see Figure 25).
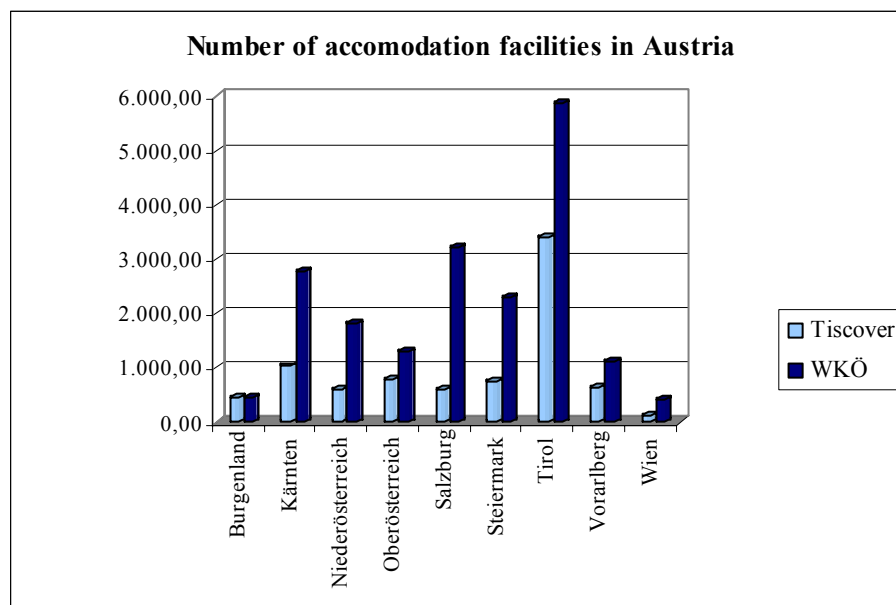
Figure 25. Distribution of accommodation facilities in Austria

As our study is mainly focusing on SME facilities we are using the members of the Tiscover database as population for our survey. This has two advantages: First, within this database we will address as much SMEs as electronically available in Austria, because in this database there are also many facilities that are not member at the Chamber of Commerce in Austria (e.g. Farm Holidays, Inn/Guesthouse). Second, these enterprises are already using the Internet for their business. As the main goal of this thesis is to evaluate the ability to use the Internet for competitive advantage, this is an essential condition. We can take a first look at our populations for the survey. Within the Tiscover system, we can identify the following categories: 28% Apartments, 21% Inn/Guesthouse, 29% Hotels, 7% Bed & Breakfast, and 15% are categorized as Farm Holiday facilities.

Regarding the presence of different marketing groups and hotel chains on the Austrian market, we can observe a concentration towards marketing groups. These are thematic associations with the aim to address the end-market with a common marketing strategy. Most of these marketing groups are not strongly organized, and enterprises often belong to more than one group to address as many customers as possible. As the most important ones we can identify the *Austrian Hotel Association (ÖHV)* which is more or less a lobbying

organization for about 200 4/5 star hotels. On the other end, the group Farm Holidays is very strongly organized, covering about 2000 different farm holiday organizations with lobbying as well as marketing activities. In Table 10 we have listed most of the hotel and marketing groups operating in Austria.

Table 10. Hotel and marketing groups in Austria

Accor Hotel	Austria Hotels	MICE	Wellnesshotels	50 plus
Best Western	Austria Classic	Wanderhotels	Familotel	Landhotels
Austria Trend	Ibis Hotels	Round Table	Cordial Hotels	Hilton Group
Romantik Hotels	Steigenberger Hotels	Relais & Chataux	Schlank & Schön	Landidyll
Multitennis	Mountain Bike Hotels	Golf in Österreich	Kinderhotels	ÖHV
Reitarena	G'sund und Vital	Reitarena	Mercure Hotels	

5.1.2 Distribution of the Hotel Product

What is distribution? In short, we could define it as: *"Getting the right inventory to the right customer at the right price via the right sales channel"* (O'Connor 2000). Both, industry cost structure and the perishable nature of the product makes effective distribution particularly important in this sector. A hotel room left unsold on any particular night cannot be stored and subsequently offered to the customer at a later date. For this reason, accommodation companies use a variety of different distribution channels to help selling their product. As it is typical for the whole tourism industry, in the accommodation sector we can also distinguish between direct distribution and distribution through intermediaries.

At the beginning there was just one channel: the guest called the hotel directly. With growing importance of the intermediaries, accommodation facilities gave their inventory to travel agents or tour operators to sell, and the airline reservation systems began carrying hotel inventory in addition to air and car inventory. The distribution was done more and more electronically. Electronic distribution systems have their origin in the inventory systems installed by the airlines at the end of the 1950s that had been originally developed as internal control systems. Their scope was expanded in the mid 1970s by installing terminals in travel agency operations giving access to real-time availability, pricing information and booking capacity, thus improving the quality of service for the customer. More and more systems began cross selling complementary travel products such as hotel rooms, rental cars or package holidays (O'Connor 2000). The hotel product was one of the first complementary products distributed through such GDSs. The hotels loaded their room types, descriptions, and price categories into the GDS database and benefited by having their product distributed to a wider audience. In addition, hotel chains began developing their own CRSs with database structures more appropriate to the hotel product. Over years, different levels of reservation services and systems were available; fees are normally based on transaction volumes plus a fixed fee per year and amount to about 20-25% of the hotel room price. These systems are still the most common way today to distribute the inventory of larger hotels.

The technical developments were always driven from the large companies; SMEs had always the problem that they were not able to participate in these marketplaces or use the channels. They have neither the capacity nor the financial resources to establish and use these channels. With the appearance of the Internet, these structures are changing. For the accommodation sectors the Internet is a perfect platform to bring information about their products to the customers all over the world, in a direct, cost-minimizing, and time-effective way. And, as an essential aspect, it is open to all type of facilities - large hotel chains as well as SME facilities. The hotel product is being increasingly sold using the Internet. The importance of this channel has grown significantly in recent years.

The Internet has dramatically changed the way people communicate, research information, make decisions and particularly the way in which they buy goods and services. Travel products in particular have proven to be some of the most suitable ones for online sale. The typical profile of an Internet user - affluent, frequent travelers who spend above average on leisure and entertainment - is an attractive market for travel suppliers. Furthermore, from a consumer perspective, in an increasingly wired world, purchasing travel online has become faster, easier and more convenient than contacting a travel agent or telephoning a supplier directly. Thus, direct distribution is strengthened by the Internet, and especially for SMEs, traditionally having a high percentage of direct distribution, it will become an essential instrument for competitive advantage.

According to statistics of Horwath Consulting (HoCo 2000) (see Table 11), direct reservations fell from approximately 37% in 1995 to just 33% in 1999 with the corresponding growth being focused exclusively on electronic channels (O'Connor 2000). While hotels continue to make extensive use of travel agents, end user consumer adoption of the Internet as a mainstream commerce medium has prompted a change in the way the hotel product is being distributed.

Table 11. Composition of worldwide hotel reservations (HoCo 2000)

Composition of Reservations	1996	1997	1998	1999
Direct Inquiry	37	35	34	33.4
Own Reservations System	14.5	14	14.7	14.5
Independent Reservations System	5.2	5.3	4.3	5.1
Travel Agents	18.1	19.8	20.7	20.4
Tour Operator	16.5	18.1	16.4	15.9
Hotel Representatives	5.7	4.3	6.5	5.9
Transportation Company	2.3	2	1.6	2.2
Website / Internet	0.8	1.4	1.8	2.8

It can be seen that both, the range of channels through which hotels can be booked and the complexity of these channels have grown. A study of O'Conner (O'Connor 2002) in the year 2002 revealed that the majority of hotel brands now uses multiple simultaneous electronic channels of distribution, making their product available to a relatively wide audience (see Table 12). While the use of voice through a Central Reservation Office has fallen slightly, there has been a growth in the availability of hotel company's own website,

with 97% of the companies now making their product available for sale in this manner. The mean number of different channels is 4.68 (O'Connor 2002). We have to mention that this study is primarily focusing on the top 50 international hotel brands, thus it does not represent the situation for our SME focus group. Anyway it provides a very comprehensive picture about the ongoing developments.

Table 12. Channels used by major hotel brands (O'Connor 2002)

Channel	Number	Percentage
Hotel Company Website	44	97%
Expedia	38	84%
Travelocity	35	78%
TravelWeb	34	76%
WorldRes	14	31%
Voice (CRO)	44	97%

A report from PhoCusWright in 2003 (PhoCusWright 2003) looked at the most important online travel sites for the hotel sector (for the US market). It compared the share of the hotel bookings to the total average gross bookings of the systems. As illustrated in Table 13 the most important system worldwide is hotels.com followed by the big players Expedia and Travelocity.

Table 13. Online travel agency gross bookings (PhoCusWright 2003)

Company	Total	Hotels	Market Share Hotel
Hotels.com	509	509	26%
Expedia	2.903	435	22%
Travelocitx	3.128	375	19%
WorldRes	246	246	12%
Priceline	1.162	174	9%
Orbitz	800	40	2%
Hotwire	325	16	1%
OneTravel.com	99	15	1%
Cheap Tickets	285	14	1%
Trip.com	25	1	0%
Total	**9482**	**1825**	**93%**
others	618	145	7%
Total	**10100**	**1970**	**100%**

In general, Austrian SMEs are in a very good position with regard to the connection to the Internet. Regarding the use of the Internet for presentation, information search, and also for transactions Austrian SMEs are at a top position worldwide (Strilka 2002). Especially positive is the situation within the travel and tourism organizations. An ec3 survey (Danzinger, Nowak et al. 2002) within the SME sector in Austria in the year 2002 showed that about 72% of all organizations have Internet access, whereas in the travel and tourism sector this number lies at 77%. About 49% have a Webpage compared to the travel and tourism sector where already 68% stated to have a Webpage. Furthermore, the study showed

that the ambition of organizations in the tourism sector is to attract new customers and to increase the turnover by using the Internet.

There are also several different IT&T companies on the market that are providing Internet-based distribution and reservation systems. According to the Austrian Hotel Association, the most important systems are shown in Table 14. Compared to Table 13 it illustrates that in Austria are more local players of major importance. Thus, we can argue that the Internet provides local players major opportunities in the travel and tourism industry.

Table 14. Online booking systems in Austria

Tiscover.at	Cabana.de
Nethotels.at	Bookings.org
Venere.at	All-hotels.com
Hotels.com	Placestostay.com (WorldRes)
HRS.de	Inthotels (hotels.or.at)
Tui.de	Holiday.at
Hotel.de	Expedia.de
Travelchannel.de	

The most important system in Austria is the Tiscover system. It is one of Europe's leading providers of online Destination Management Systems (DMS). Destination Management Organizations (DMO) on a national, regional and local level are among Tiscovers customers as well as accommodation providers ranging from small Bed & Breakfast to 5-star hotels. They have established several cooperations with national and international travel sites, so they are able to bring very high levels of traffic to their customer websites (Tiscover 2003). Tiscover branded sites ranking among the most visited travel sites on the Internet and one of the top sites in Austria (with 57 million online visits and over 200 million page views in 2002). Figure 26 illustrates the development of online bookings and reservation requests on the Tiscover system.
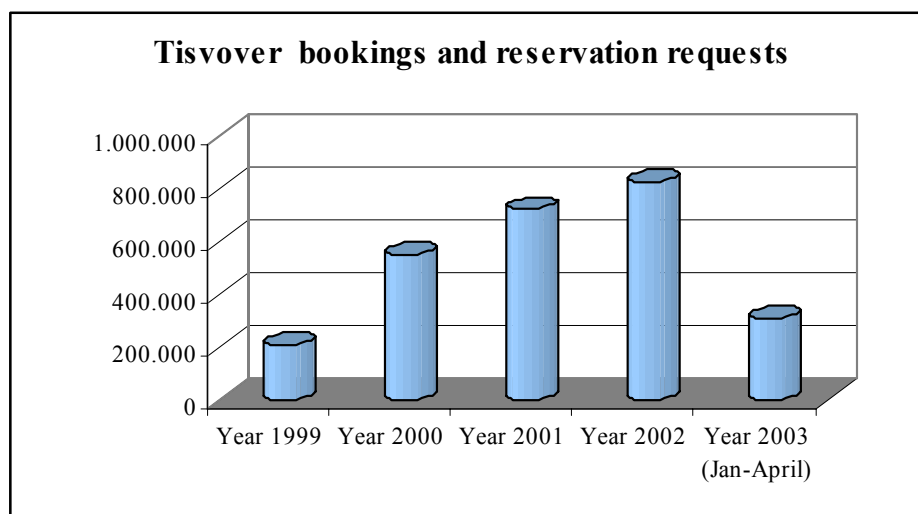
Figure 26. Tiscover bookings and reservation requests

5.2   Threats Caused by the Internet for the Accommodation Sector

According to our framework defined in Chapter 3, we have to identify possible threats for the specific industry sector we aim to analyze. Since the technology itself is now available to almost everyone, its use alone does not necessarily bring a competitive advantage, it can also cause several threats to enterprises. Enterprises which fail to adopt their strategies and businesses to these new conditions will be exposed to these threats. We have already defined eight generic threats caused by the Internet, which are able to change the five competitive forces within an industry. In this section we instantiate these threats into specific threats for the accommodation sector (see Table 15).

Table 15. Specific threats for the accommodation sector

| Generic threat	Identified threat for the accommodation sector
Lowered consumer search costs and decreased switching cost open a market for potential new entrants; this reduces the entry barriers for new companies by opening the distribution channels (reintermediation) and capital requirements (Bakos 1998; Porter 2001).	The Internet reduces the entry barriers for potential new entrants, thus new hotels and accommodation facilities can appear on the market.
The threat that the reduced switching costs of buyers increase also the power of the buyers (Tezeli 1994; Porter 2001).	The reduced switching costs of buyers increase also the power of the buyers. Consumers can easily book at other hotels.
The Internet is a possible instrument to bypass wholesale or retail channels (disintermediation), this can also reduce entry barriers (Wirtz 2001).	The Internet is a possible instrument to bypass wholesale or retail channels of hotels.
The Internet offers new possibilities and instruments to meet customer needs by offering new products and services, which could substitute existing ones (Porter 2001).	The Internet offers new possibilities and instruments to meet customer needs by offering new products and services, which could substitute existing services and products of hotels.
By reduced entry barriers and the increasing number of competitors the power of the suppliers will increase (Porter 2001).	The Internet opens the distribution channels for new market players (reintermediation). Hotels have to cooperate with these new partners/suppliers.
The Internet brings many more companies into competition with one another by expanding geographic markets and reduced entry barriers; it can raise the rivalry within the industry and increase the pressure for price discounting (Porter 2001).	The Internet brings many more hotels into competition with one another by expanding geographic markets and reduced entry barriers; it can increase the pressure for price discounting.
The Internet offers new possibilities and instruments to meet customer needs and provide new products and services (Timmers 1998), thus the rivalry among existing companies within an industry can increase (Porter 2001).	The Internet offers new possibilities and instruments to meet customer needs thus the rivalry among existing hotels within the industry can increase (e.g. if one hotel offers a virtual room, all others have to do so).
The customer can easily compare different prices and gain knowledge about products, thus the price becomes the most important decision criterion (Bakos 1998; Wirtz 2001).	The customer can easily compare different prices and gain knowledge about other hotel offers, thus the price becomes the most important decision criterion.

As already outlined, the travel and tourism industry is extremely influenced by the Internet. All market players are confronted with a number of developments that changes the industry structure. This raises questions about which players are confronted with threats and which players will find opportunities through the Internet.

For this task we have identified the following players:

- Airlines,
- Hotel < 50 beds,
- Hotels > 50 beds,
- Hotel Chains,
- Marketing Groups,
- Travel Agents,
- Tour Operators,
- National Tourist Boards,
- Regional and Local Tourist Boards,
- CRS/GDS,
- IT & T Companies.

We evaluate the influence of the Internet for the market position of these different players with an online expert survey. This gives us a picture about the situation for the SME accommodation facilities within the industry and enables us to compare their position to other players.

In the second step we use the specific threats and evaluate them for their relevance according to the experts. The evaluation of the threats also gives us an overview of which of the five competitive forces is primarily influenced negatively by the Internet. We compare the intensity of these threats with the opportunities and out of this we are able to derive some recommendations for the sector to counteract the threats.

5.3 Opportunities Provided by the Internet for the Accommodation Sector

As already mentioned in Chapter 3, we have also identified several services and tools provided by the Internet that are able to give competitive advantage to enterprises. Within this section we will use these generic opportunities to instantiate nine specific opportunities for the accommodations sector. By carrying out an expert survey and a hotel survey, we evaluate their relevance for the sector and their capacity to improve the competitiveness of accommodation facilities. The specific opportunities are illustrated in Table 16.

Table 16. Specific opportunities for the accommodation sector

Generic opportunity	Specific opportunity for the accommodation sector
Product bundling	By using the Internet, hotels can use product bundling to provide new offers for their customers.
Niche products	By using the Internet, hotels can provide special niche products for customers.
Personalization	Hotels can use the Internet for personalized products and services.
Smart prices and dynamic markets	The Internet offers possibilities for dynamic pricing.
Revenue sharing and affiliate programs	The Internet offers new sales possibilities by using revenue sharing and affiliate programs.
Disintermediation	By using the Internet, hotels can contact their customers directly; intermediaries like travel agents are bypassed.
Reintermediation	By using the Internet hotels can act as new intermediaries.
Web and data mining	By using Web and data mining technologies, hotels can capture additional information about their customers.
Online market research	By conducting online surveys, hotel can capture additional information about their customers and potential customers.

Chapter 6

The Online Surveys

6.1   Online Market Research

Regarding the use of the Internet for online market research we can primarily identify the Internet as a tool to collect market and customer data. According to classic market research, we can use the Internet as a tool for (Weis and Steinmetz 2000; Theobald, Dreyer et al. 2001):

- secondary and primary research,
- qualitative and quantitative research,
- addressed or anonymous online market research.

To capture a picture of the use of the Internet within the Austrian accommodation sector, we decided to use the Internet to run two online surveys (one expert survey and one hotel survey). The term "online survey" is not very exact. There exists no generally accepted and standardized definition of what an online survey is. Therefore, we will define online surveys as *online questionnaires that are presented to users of a website*.

The invitation of survey-respondents can be done in four different ways:

- placing a static link on a website where one can click on,
- advertising the survey through banner-ads,
- confronting the user with a full-screen survey invitation,
- inviting a user to take part in the survey within a pop-up window (e.g. invitation per eMail).

The first two methods mentioned are not suitable for conducting studies that are supposed to produce representative results. If a survey can be accessed through a static link, users could take part in the survey as often as they want. That makes the results more or less worthless. In terms of surveys that are advertised through banner-ads it is to say that users who click on such banner-ads differ very much from "normal" site-users. We decided to send the surveys via eMail to the participants.

The expert survey was addressed to a closed community of Austrian industry experts from the travel and tourism area and sent via eMail in December 2002. The hotel survey was sent to 7500 accommodation facilities that are already using the Internet for their business. For both surveys we used an ASP-tool of the company *Mindtake* that allows designing and implementing online surveys. The tool also ensures that each participant could only participate once, and it furthermore provides the possibility to track the survey progress in real time. For the data analysis we used *Microsoft Excel 2000* and *SPSS 9.0*. In the next sections, we describe the major outcomes of the two surveys and compare the results that serve to derive recommendations for the different players within the industry in Chapter 7.

6.2 Expert Survey

The focus of the thesis is to investigate the ability of SME hotels to gain competitive advantage by using the Internet. The outlined research framework considers several threats and opportunities of the Internet a company has to take into account for selecting the right strategy. In the first step, we chose an expert survey with industry experts to evaluate these threats and opportunities for the hotel sector in Austria. The aim of the survey was to get a more detailed view on our proposed statements and to get a rating from industry experts in Austria. In the next step the results of the expert survey are compared with the results of an industry survey (see section 6.3). This provides a picture about the strengths and weaknesses of the industry. Figure 27 shows a screenshot of the survey which consisted of 11 pages (see Appendix for the complete set of screenshots). It was implemented in screen-by-screen design and run in German language. The Web survey consisted of nine questions, a cover sheet to explain the objectives and goals of the survey, and a registration sheet where the experts could enter their mail address. About 66% of the participants registered with their addresses and stated their interest in the survey results.

Figure 27. Screenshot of the expert survey

6.2.1 Design of the Expert Survey

To achieve a high response rate, we decided to formulate only nine questions, as most of the contacted persons are in high management positions and have very limited time resources. The contact addresses were organized by contacting several experts directly by telephone. As most of them recognized the importance of the survey, they provided further contact addresses. According to our defined opportunities and threats from the previous sections, the following topics for questions were chosen:

- Identifying opportunities and threats for the tourism market players,
- Identifying the threats to hotels caused by the Internet,
- Identifying the opportunities for hotels provided by the Internet,
- Identifying the present use of the Internet.

110 questionnaires were sent by eMail to managers in or associated with the travel sector in December 2002. 53 (48.2%) persons opened the Web survey, and 22 complete responses were returned. This represents a participation rate of 20%. Regarding the distribution within the different travel and tourism organizations, the respondents were from:

- 2 public organizations,
- 11 IT&T (Information technology and tourism) companies,
- 3 marketing groups,
- 1 consulting company,
- 1 travel agent,
- 2 tourism offices,
- 1 scientific institution,
- 1 lobbying organization.

This illustrates that participants from IT&T companies represent 50% of the survey participants. Regarding the management position within the organization, about 50% represent the business leader or head of the company and the other 50% can be allocated to middle management positions.

6.2.2 Evaluation of Survey Results

6.2.2.1   Identifying Opportunities and Threats for the Tourism Market Players

The first question of the survey investigates which market players of the travel and tourism industry are confronted with growing threats and which are provided with new opportunities by the Internet.

The experts were asked to evaluate the degree of opportunities or threats caused by the Internet for each player. They had to assign a number between 1 and 7, 1 representing strong opportunities and 7 strong threats. This question aims at illustrating how the experts see the position of the different players of the travel and tourism industry in general, and in particular, how the role of the accommodations sector is seen compared to the other players.

11 different players of the travel and tourism industry were identified for this question (see Table 17).

Table 17. Evaluated players of the travel and tourism industry

▪ Airlines	▪ Tour Operators
▪ Hotels < 50 beds	▪ National Tourist Boards
▪ Hotels > 50 beds	▪ Regional and Local Tourist Boards
▪ Hotel Chains	▪ CRS/GDS
▪ Marketing Groups	▪ IT & T Companies
▪ Travel Agents	

As illustrated Figure 28, in the experts regard *airlines* ($\bar{x} = 1.45$) as those organizations with the largest opportunities provided by the Internet.

IT&T companies, hotel chains, and hotels with more than 50 beds are also very well rated with a score smaller than two. Hotel with less than 50 beds are rated with an average of 2.05, thus their opportunities are also seen as strong and above average. Local/regional tourist boards are rated with a score above average of 2.39. The only players which are confronted with stronger threats than opportunities are the travel agents, which get a rating of 4.59 from the experts.
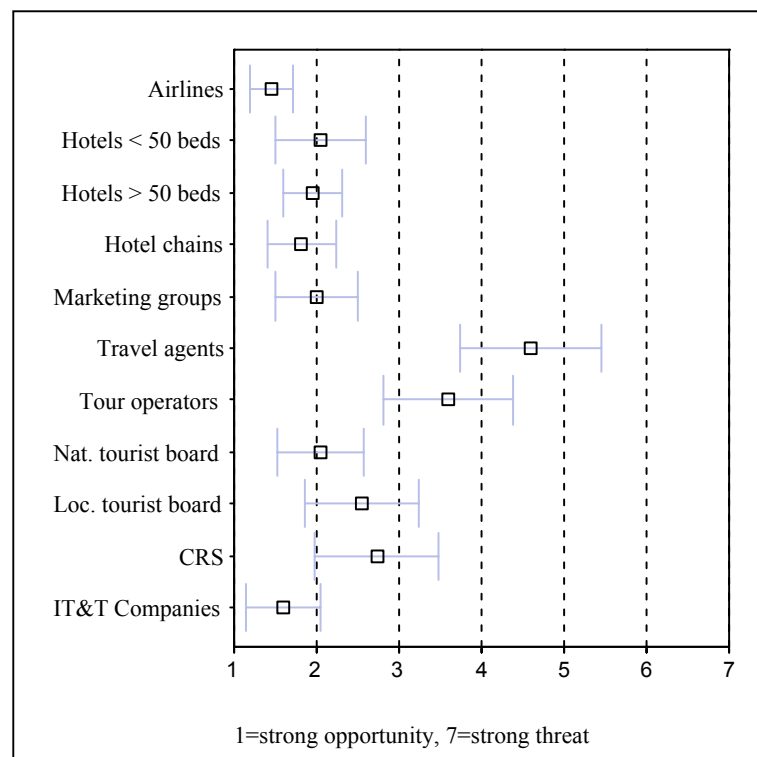
Figure 28. Opportunities and threats for the tourism industry players (95% - CI)

also illustrates very well that the situation for intermediaries such as travel agents, CRS/GDS and tour operators is seen as more critical than for suppliers. It also illustrates that those players are rated with a larger confidence interval (the interval in which the average falls with 95% probability). For example, the length of the 95% confidence interval for travel agents is 1.5 (CI = [3.8; 5.3]) while the length of the interval for Airlines is 0.6 (CI = [1.2; 1.8]). This indicates that the experts are much more indifferent about the future role of travel agents compared to the future role of airlines.

Especially the role of the larger suppliers such as airlines and hotel chains can be seen as very strong, and IT&T companies as new players in the market also have good opportunities provided by the Internet. In general, an average rating of 2.39 sees the travel and tourism industry in a position of good opportunities. Our focus group, the SME accommodation sector, is also regarded to be in a very good position. Compared to larger facilities, the experts rated them with a wider confidence interval.

6.2.2.2   Identifying the Threats to Hotels Caused by the Internet

To evaluate the threats caused by the Internet to hotels, we used the threats specified and formulated in section 5.2 (see Table 18). The aim of this question was to assess the relevance of the threats. The experts were asked to evaluate each statement by assigning a number between 1 and 7, where 1 indicates that the statement is relevant for the hotel sector and 7 that this statement is not relevant.

The experts rated the threats with a general average of 3.4 (see Figure 29). All statements, except statement T_4, T_5 and T_6, were rated above average and regarded as relevant. Statement T_4 ($\overline{x}$ = 4.8) is seen as the least important threat for the hotel sector and is also rated within a larger confidence interval CI = [3.8; 5.8]. The statements T_3 ($\overline{x}$ = 2.5) and T_2 ($\overline{x}$ =2.6) received the highest ratings of possible threats.

Regarding the five competitive forces this would mean that the threats of substitute products/services and of an increased power of suppliers are not seen as evident. Moreover, an increased competition among existing firms is not seen as being relevant by the experts. On the other hand, according to the experts the Internet increases the threat of new entrants (in the form of new intermediaries) and the power of buyers.

This indicates that the most important threats are seen in the changes of the retail and distribution channels and in the communication to the consumers. Hotels which are ignoring the new channels and possibilities are confronted with increasing threats. This is also indicated by the reduced switching costs of the buyers. By the use of the Internet the consumer can easily book at another hotel, thus it will be an essential success factor for hotels to communicate directly with the consumer and improve the customer relationship.

Table 18. Threats caused by the Internet

Tn	Statements « Threats »
T_1	The Internet reduces the entry barriers for potential new entrants, thus new hotels can appear on the market.
T_2	The reduced switching costs of buyers increase also the power of the buyers. Consumers can easily book at any other hotel.
T_3	The Internet is a possible instrument to bypass wholesale or retail channels.
T_4	The Internet offers new possibilities and instruments to meet customer needs by offering new products and services, which could substitute existing ones.
T_5	The Internet opens the distribution channels for new market players (reintermediation). Hotels have to cooperate with these new partners.
T_6	The Internet brings many more hotels into competition with one another by expanding geographic markets and reduced entry barriers; it can increase the pressure for price discounting.
T_7	The Internet offers new possibilities and instruments to meet customer needs, thus the rivalry among existing companies within an industry can increase (e.g. if one hotel offers a virtual room, all others have to do so).
T_8	The customer can easily compare different prices and gain knowledge about products, thus the price becomes the most important decision criterion.
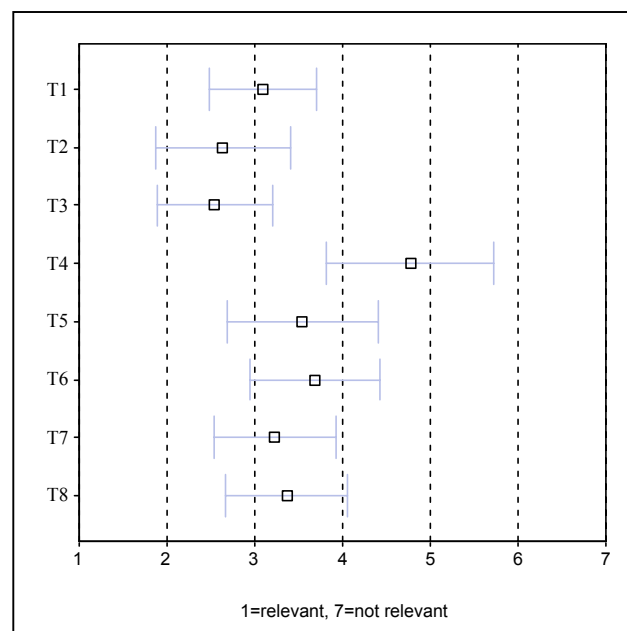
Figure 29. Relevance of the eight threats (95% - CI)

Besides these more market-view-oriented statements, we also formulated a question where the experts had to rate eight different problems the Internet causes to hotels in their daily work. These problems were formulated as: faster reaction time, new personnel requirements, additional workload, higher industry competition, higher price competition, wrong bookings, additional costs and none. Out of these, the experts had to identify the three most

important ones. As illustrated in Figure 30, the three most important problems according to the experts are:

- faster reaction time,
- new personnel requirements,
- additional workload.

All three statements can be seen as an indication for organizational challenges within the hotel sector and the need for a company to adapt its daily work. In particular, this is evident for SMEs that are often less advanced in their organizational and management structures and are often struggling with a fast changing environment. Similar results have been outlined by Buhalis (Buhalis 1997; Buhalis 2002) and Morrison (Morrison 1994).
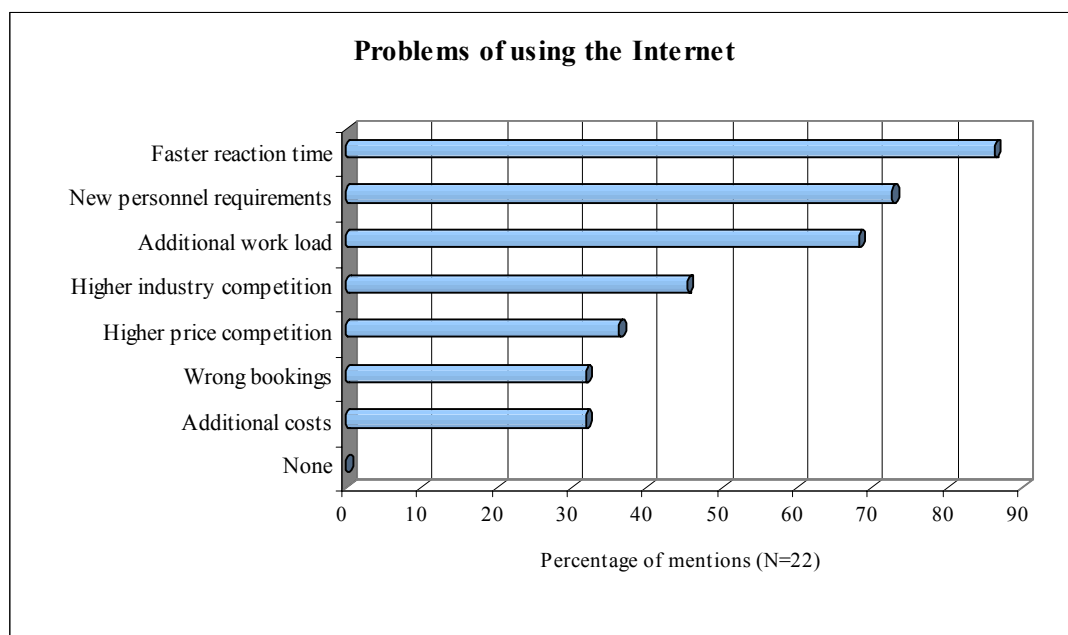
Figure 30. Problems of using the Internet

6.2.2.3   Identifying the Opportunities for Hotels Provided by the Internet

To evaluate the opportunities for the accommodation sector provided by the Internet, we used the identified opportunities specified in section 5.3 (see Table 19). The experts were asked to evaluate each opportunity by assigning a number between 1 and 7, where 1 indicates that the opportunity is relevant for the hotel sector and 7 that it is not relevant.

These opportunities have to be seen as potential value generating and capturing possibilities. Buhalis (Buhalis 2002) and Allen (Allen and Rob 2000) have already illustrated opportunities for innovative accommodation facilities provided by the Internet. Buhalis categorized the opportunities into the following groups: internationalization, differentiation, adding value, interconnection and distribution, and embracing technology.

Following our identified threats, which primarily influence the five competitive forces, we formulated our opportunities to counteract these threats.

Table 19. Opportunities of the Internet

On	Statements « Opportunities »
O_1	By using the Internet, hotels can use product bundling to provide new offers for their customers.
O_2	By using the Internet, hotels can provide special niche products for customers.
O_3	Hotels can use the Internet for personalized products and services.
O_4	The Internet offers possibilities for dynamic pricing.
O_5	The Internet offers new sales possibilities by using revenue sharing and affiliate programs.
O_6	By using the Internet, hotels can contact their customers directly, intermediaries like travel agents are bypassed.
O_7	By using the Internet, hotels can act as new intermediaries.
O_8	By using Web and data mining technologies, hotels can capture additional information about their customers.
O_9	By conducting online surveys, hotels can capture additional information about their customers and potential customers.

The average rating for the relevance of all mentioned opportunities is very high with a score of 2.3, which shows that all statements are identified as relevant (see Figure 31). The worst average rating is $\bar{x}$ =2.8 for statements O_9 and O_4, followed by $\bar{x}$ =2.7 for O_7. The ratings of these statements also show a larger variation compared to others.

1=relevant, 7= not relevant
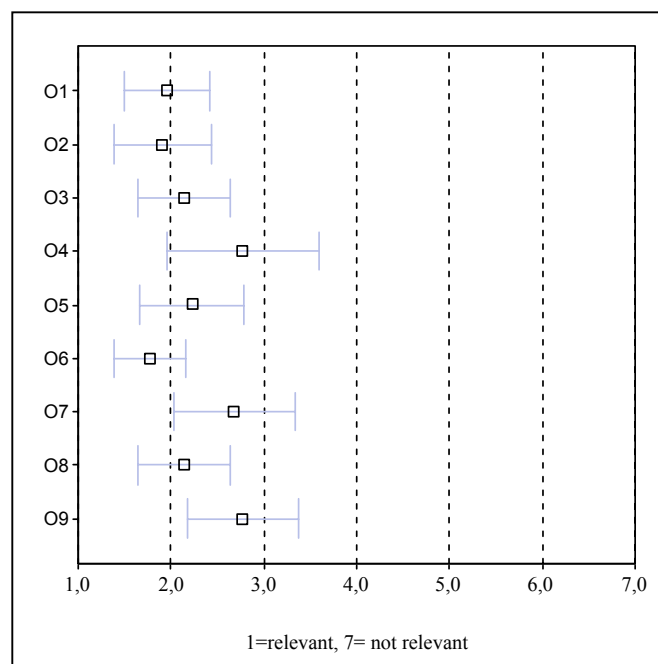
Figure 31. Relevance of the 9 opportunities (95% - CI)

As the most important opportunities the experts identified O_6 ($\bar{x}$ =1.8) and O_2 ($\bar{x}$ =1.9). O_6 points out the importance of the Internet as a distribution channel and the possibility for hotels to bypass the existing ones. This is also underlined by the results of the first question where the intermediaries are rated as those players who have fewer opportunities than the others. O_2 illustrates the chance for hotels to address niche products and the individual customer. This shows that one of the largest threats, i.e. the changes in the distribution channel, is at the same time an opportunity for competitive advantage.

Additionally, we also included a question where the experts had to rate eight different choices for possible advantages of the Internet for the hotel sector. Out of these eight choices, the experts had to select the four most important ones from their point of view. These eight possibilities were: last minute bookings, lower distributions costs, new customers, higher occupancy rate, direct customer contact, competitive advantage, improved customer relationship, and none. As illustrated in Figure 32 the five most important advantages of the Internet identified by the experts are:

- last minute bookings,
- lower distribution costs,
- new customers,
- higher occupancy rate,
- direct customer contact.

These can be associated with an increased organizational level of an accommodation facility and with an increased competitive position. Very important are also activities and applications which support the more strategic part of a hotel's work.
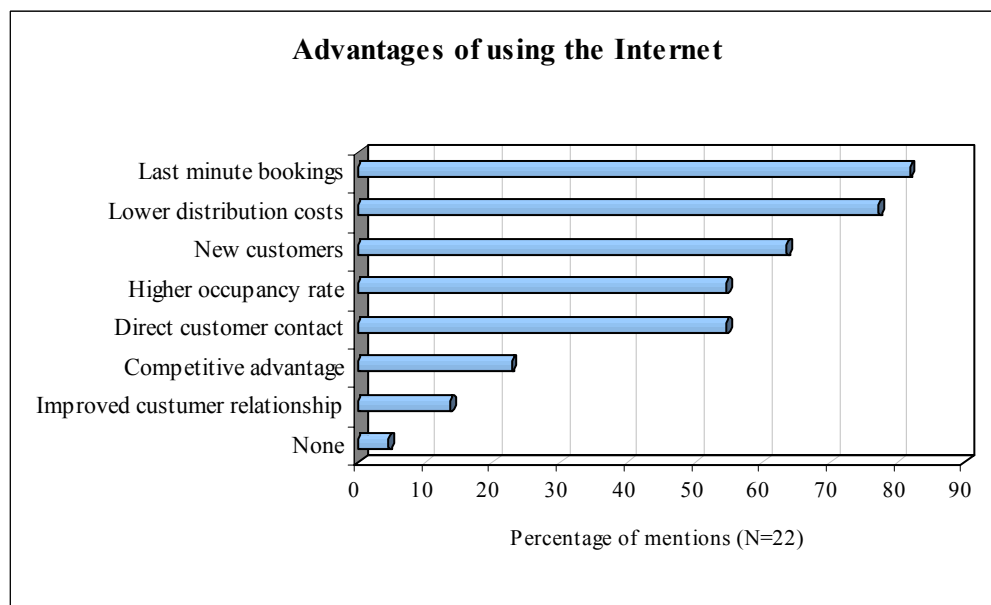
Figure 32. Advantages of using the Internet

6.2.2.4   Identifying the Present Use of the Internet

To get a detailed picture of the current use of the Internet from the point of view of the experts, we included two related questions in the survey. The first question described 12 different applications and services of the Internet that can be used by accommodation facilities for their daily work. We asked the experts to identify those services which the hotels already use extensively for their business. The results, illustrated in Figure 33, show that the following services and applications of the Internet are seen as the most important ones:

- Homepage,
- eMail,
- Online reservation.

Services like online booking, newsletter, last minute offers, and product development are considered only as partly in use, whereas personalization activities, search for customer information, online surveys or banner and online promotion are thought of not being used at all.
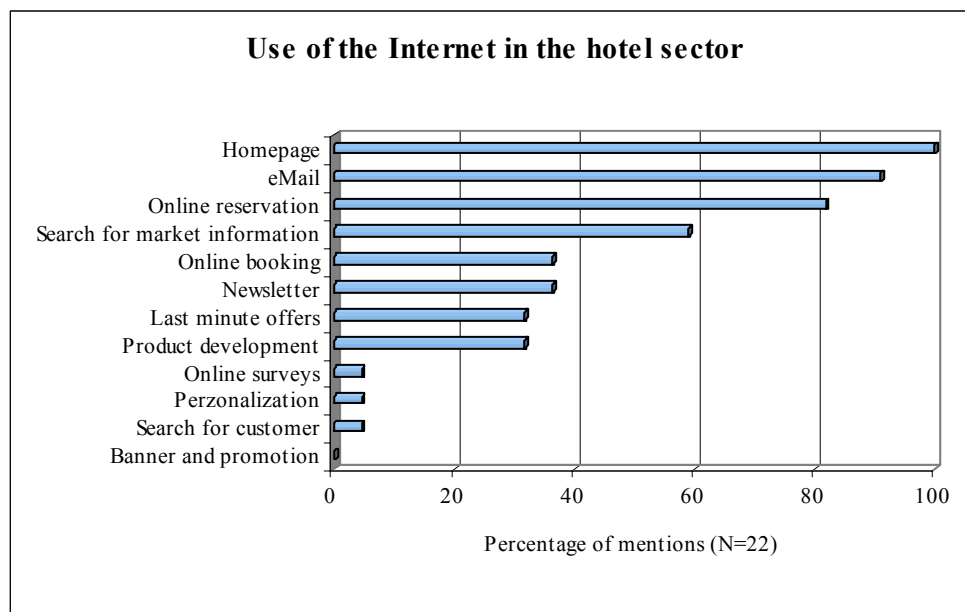
Figure 33. The present use of the different services of the Internet

As O'Conner (2002) has already described, the Internet is primarily used for the distribution of the hotel product. We also formulated a question to evaluate the importance of the Internet for the product distribution of a hotel. To investigate the importance of the different channels, we asked the experts to rate 13 distribution channels of a hotel with a number between 1 and 7 (see Figure 34). A rating of 1 indicates again that this channel is very important and 7 that the channel is not important.

The experts identified "personal recommendation" as the most important channel receiving a rating of $\bar{x}$ =1.5. At the second position the experts see the hotel homepage with a rating of $\bar{x}$ =2. Internet reservation systems are considered less important with a rating of $\bar{x}$ =3.5.

Travel agents and tour operators are also positioned in this area. Surprisingly, local ($\bar{x}$ =3.9), regional ($\bar{x}$ =4.6), and provincial ($\bar{x}$ =5.1) tourist boards are thought of being much less important compared to the Austrian national tourist board ($\bar{x}$ =2.4), which has been rated as very relevant by the experts.
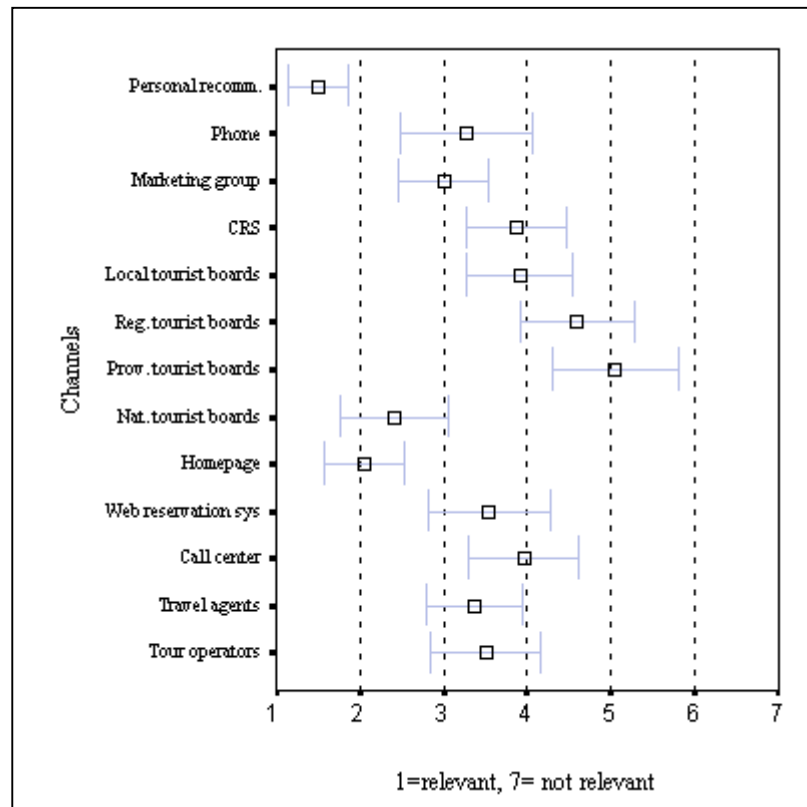
Figure 34. Relevance of the different distribution channels for a hotel (95% - CI)

6.2.3 Summary of the Expert Survey

The purpose of the expert survey is to explain the role of the Internet for hotels and similar accommodation facilities from the point of view of Austrian industry experts. The experts identified the hotel sector as one of those players with large opportunities provided by the Internet. Hotels with more than 50 beds and hotel chains seem to be in a better position than SME hotels with less than 50 beds. In fact, larger hotels and hotel chains have always had a greater need of ICT and have already a higher level of ICT usage. However, the Internet can be seen as a powerful instrument for SME hotels to overcome this ICT disadvantage. By using the Internet, hotels can contact their customers directly, intermediaries like travel agents are bypassed and SME hotels that have had no possibility to use distribution channels yet can use the Internet as an additional and new channel.

6.2.3.1   Threats of the Internet

As identified by the experts, the most evident problems and threats for the hotels are: the faster reaction time, new personnel requirements, the additional workload and the changes within the distribution channels. These are all organizational problems; the ability to handle these problems will be a very important success factor to gain competitive advantage by using the Internet. SME accommodation facilities cannot afford to ignore the importance of the Internet. It can be seen as one of the largest threats that SMEs, failing to adapt their Internet presence and therefore being unavailable in the marketplace, will be inaccessible to customers and intermediaries.

6.2.3.2   Opportunities of the Internet

Regarding the opportunities of the Internet, the experts indicated that the Internet is a powerful instrument to distribute products and to address the customer directly. This is also evident as the experts have identified the changes of the retail and distribution channels as the most important threat for hotels and have rated the homepage as the second most important distribution channel for hotels in Austria. We have also identified specific advantages of using the Internet: last minute bookings and lower distribution costs that are also associated with a more efficient organization of a hotel were identified as the most relevant opportunities. We see it as an essential success factor for organizations to create organizational structures such as defining responsible persons or specific business processes for the introduction of new Internet technologies. The results of the expert survey also illustrate that especially services like homepage, eMail and reservation activities are used extensively. More dynamic services like online booking, newsletters, or personalization tools are used less or not at all, up to now.

In the next step of our research we carry out an online survey with Austrian accommodation facilities to evaluate the use of the Internet and the opportunities and problems from their point of view. We compare the results of this study with the results of the expert survey. This provides us with a broad picture of the awareness of hotels regarding the use of the Internet for their business activities. Finally, we identify these strengths and weaknesses and postulate possible recommendations for decision makers within this sector in Austria.

6.3   Online Survey within the Accommodation Sector in Austria

6.3.1 Design of the Survey

The expert survey provided us with a very comprehensive picture of the use of the Internet from the point of view of industry experts. To validate this data, we carried out a hotel survey within the Austrian accommodation sector. We had two major goals:

- First, we wanted to address as much SMEs as possible including facilities like bed & breakfast and farm holiday as well as small hotels, i.e. organizations that are usually not member of a chamber of commerce or similar organizations.

- The second goal was to address mainly organizations that are already working with the Internet, because we wanted to evaluate their ability to gain competitive advantage by using the Internet.

The results of this survey are compared to the results of the expert survey, and based on our defined threats and opportunities we will finally be able to define recommendations for industry players. As we wanted to address many SME facilities that are already using the Internet for their business, we chose the population of a DMS (destination management system). This database includes about 15,000 accommodations from all possible categories in Austria. It can be regarded as the largest available database also including SMEs like farm holiday or bed & breakfast facilities. This data was cleaned by removing duplicates and data sets with wrong or missing eMail addresses. Finally, 8,400 questionnaires were sent to accommodation facilities in Austria by eMail, of which 900 returned as not deliverable. In the end, we can assume a population of 7,500 facilities. 579 (7.7%) participants opened the survey and 296 complete responses were returned (drop out rate of 49%). This represents a participation rate of 4%. As there was no incentive for the participants like a lottery, the rate can be regarded as sufficient for our analysis.

In the province of Tyrol, the response rate was a little bit lower, in Burgenland slightly higher. In relation to the distribution of the participants to the different Austrian provinces, the sample can be regarded as representative. A χ^2 – test showed no significant differences between the distribution of the population and the sample (p-value = 0.27). With a sample of about 300 participants we have to anticipate a variation range of ±5.66% for ratio estimation. Figure 35 shows a screenshot of the hotel survey. The eMail was submitted as plain text with a clickable link to 7,500 accommodation facilities in the end of December 2002. It contained 19 questions that can be categorized into the following topics:

- Identifying the threats for hotels caused by the Internet,
- Identifying the opportunities for hotels provided by the Internet,
- Identifying the present use of the Internet,
- Enterprise information.

Each question was placed on one page (screen-by-screen design) and designed with simple graphical components and in German language (see Figure 35, the Appendix contains the complete set of pages). The user always had the overview of the stage of progress and, similar to the expert survey, we used a cover sheet to explain the ambition and goals of the survey and a registration sheet to give the participants the possibility to enter their contact address. Out of 296 survey participants 200 registered with their eMail address.
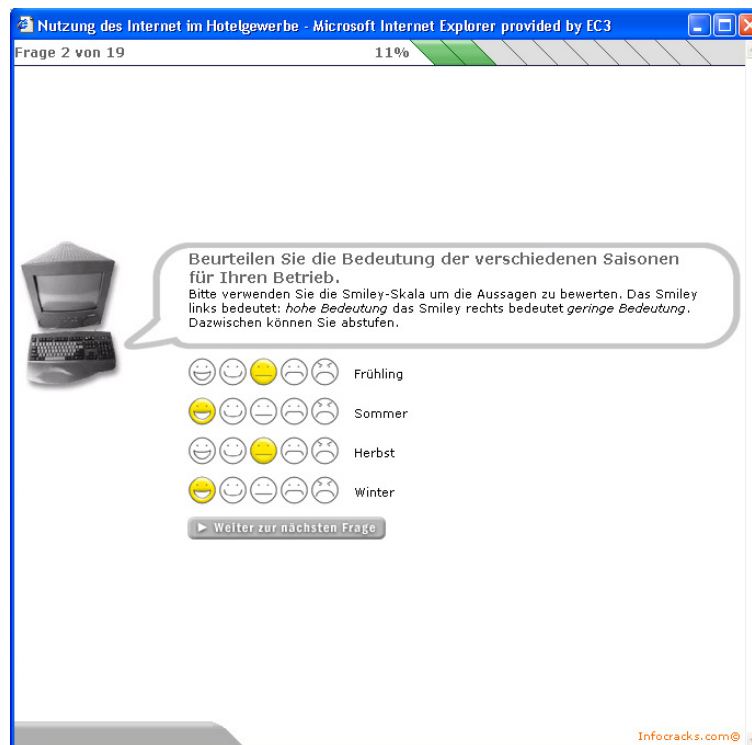
Figure 35. Screenshot of the hotel survey

6.3.2 Evaluation of Survey Results

6.3.2.1   Participants of the Survey

As already described, 296 hospitality organizations participated in the online survey. Regarding the regional distribution as illustrated in Figure 36, we have to consider that for the province of Tyrol the response rate was little a bit lower whereas in Burgenland it was slightly higher. A χ^2 – test showed no significant differences between the distribution of the population and the sample (p-value = 0,27).

The analysis showed that 35% (105 facilities) of the participants are members of a marketing group. Most survey participants are a partner of the farm holiday group (33 facilities), followed by 16 ÖHV (Austrian Hotel Association) members. The rest is distributed among 30 different marketing groups like "Golf Hotels", "Tennis Hotels", "Wander Hotels", etc. In general, the most important season was summer followed by the winter season, whereas in Tyrol and Salzburg winter is the most important season. This is easy to explain as these are the most important skiing destinations in Austria. As shown in

Figure 36, about 32% of all participants can be assigned to the province of Tyrol, being the largest tourism destination in Austria (in term of overnight stays).
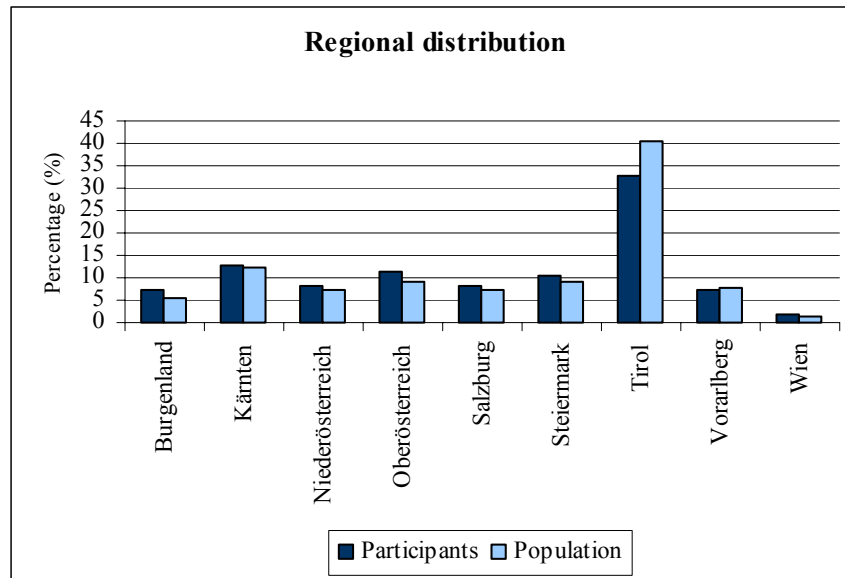
Figure 36. Regional distribution of the survey participants

Regarding the distribution within the different categories of the participants, Figure 37 indicates that the sampling used in the survey is representative with respect to the type of accommodation.
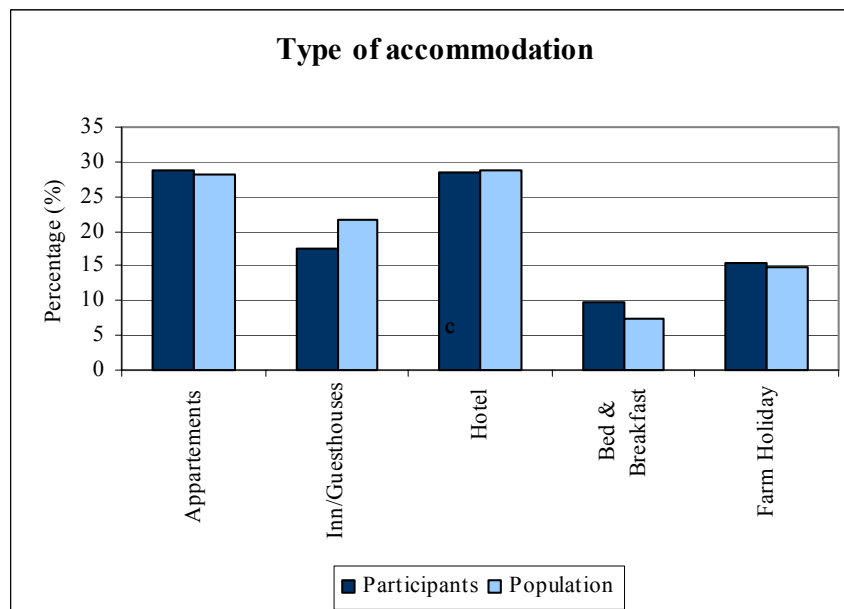
Figure 37. Distribution of the participants with respect to the type of accommodation

Also demonstrated by Figure 37, about 70% of the survey participants do not belong to the classic hotel sector. Most of them are privately owned apartments, farm holiday properties or Inn/Guesthouse facilities. This validates our decision to run the survey within the

population of the members of a destination information system (Tiscover.com). One of our main intentions is to address as much SMEs as possible. We argue that especially for these organizations the Internet is a possible instrument to increase their competitiveness and strengthen their position within the travel and tourism value chain, and thus these organizations are the main focus of our research. As seen in Figure 36 and Figure 37, the participants of our survey are mostly representing these organizations.

Regarding the number of beds this picture is strengthened (see Figure 38). About 64% of the survey participants have less than 30 beds and just a small percentage of 7% have more than 100 beds. In general, we can approximate an average of six employees. Thus, most of the participants can be classified as small and medium sized hospitality organizations. Typically, these enterprises offer less than 50 rooms, employ less than 10 people, and operate in the lower reaches of the markets.
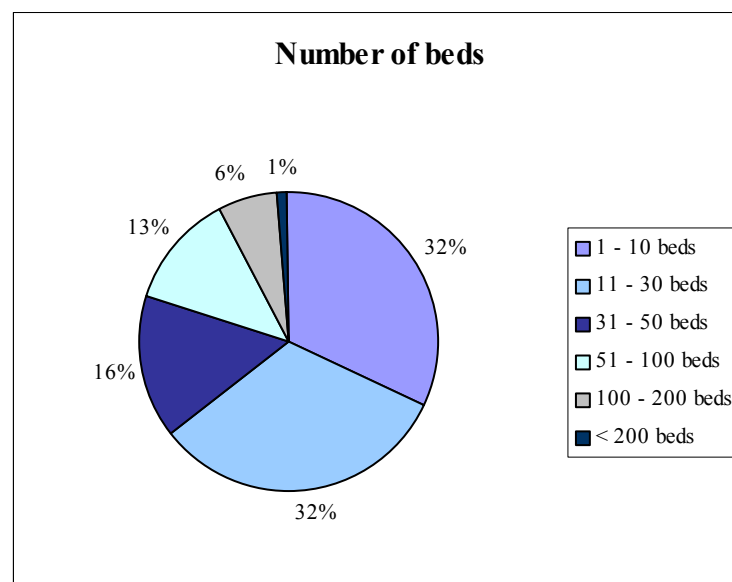
Figure 38. Number of beds of the survey participants

Most of these facilities act as followers especially regarding the adoption and use of technology for the business. On the other hand, we argue that especially these organizations can gain sustainable advantages by the use of the Internet. The use of the Internet was already evaluated in a previous ec3 survey (Danzinger, Nowak et al. 2002; Strilka 2002) in the year 2002. In this survey, 1,128 SMEs, from all business areas were investigated for their use of the Internet. The 124 tourism organizations, which participated in this survey, showed a significantly more intense use of the Internet than organizations from other industries. About 87% had Internet access and 68% had an own homepage compared to about 50% in the other industry sectors.

One very important criterion to measure the performance of a hospitality facility is the degree of the occupancy rate. As the room of an accommodation facility is highly perishable it is essential to achieve a high occupancy rate each day. In Austria, the average occupancy rate for an accommodation facility was 29.7% in the year 2002, which represents a slight

increase compared to the previous years. But there are also variations between the different categories of facilities. Larger hotels and hotels of higher quality tend to have a higher occupancy rate of nearly 36%, whereas smaller facilities like bed & breakfast and guesthouses have just a rate of 16.9%.

6.3.2.2   Advantages of Using the Internet

As this thesis intends to evaluate the advantages of the Internet for the accommodation sector, this part of our survey was of major importance. We included the same questions in the hotel survey that we used in the expert survey, where the participants had to rate eight different choices for possible advantages of the Internet for their facilities. Out of these eight choices they had to select the four most important ones from their point of view. According to the identified opportunities of the Internet, the eight advantages represent possible strategic advantages a hotel can achieve by using the Internet. These advantages can be categorized:

- the *customer-oriented advantages* enhancing the relation to the customers and the knowledge about them,
- the *distribution oriented-advantages* that improve the capacity to sell the products.

Figure 39 compares the results of the expert survey with the results of the hotel survey.
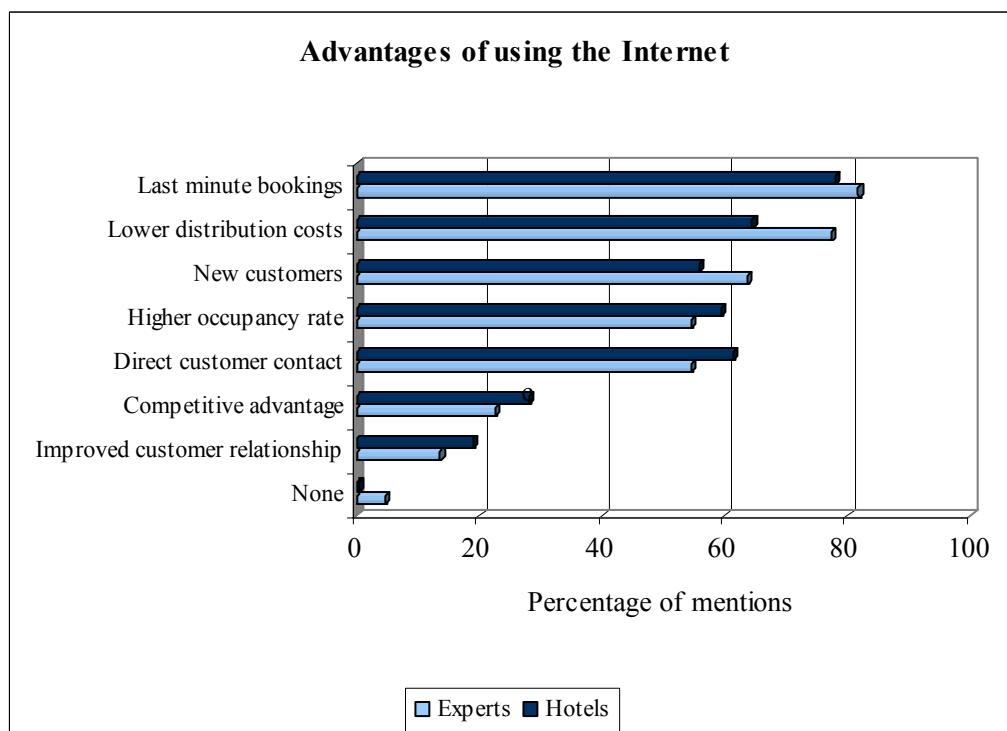
Figure 39. Advantages of using the Internet (experts vs. hotels)

The four most important advantages of the Internet identified by the experts are:

- last minute bookings,
- lower distribution costs,
- new customers,
- higher occupancy rate.

Regarding the answers of the hotels we can see a very similar picture. They chose the following 4 advantages:

- last minute bookings,
- lower distribution costs,
- direct customer contact,
- higher occupancy rate.

The population of hotels regarding *lower distribution costs* as advantage is about 10 percentage points below the corresponding proportion of experts, while hotels put more emphasize on *direct customer contact* and *improved customer relationship*, than experts. Thus, we can argue that the advantages of the Internet are primarily seen as:

- a tool for distribution by increasing the occupancy rate and reducing the distribution costs, and
- a tool to increase the direct customer contact.

6.3.2.3   Problems of Using the Internet

Regarding the problems of using the Internet, a question was included where the hotels had to rate eight different problems caused by the Internet for their daily work. This was again the same question the experts also had to answer. Out of these eight problems the survey participants had to identify the four most important ones.
Figure 40 compares the results of the expert and hotel survey. The four most important problems according to the experts are:

- faster reaction time,
- new personnel requirements,
- additional workload,
- higher industry competition.

The first three statements can be seen as an indication for organizational challenges within the hotel and the need for the company to adapt its daily work. Regarding the answers of the hotels we can again see a very similar picture. The four most important problems from the point of view of the hotels are:

- faster reaction time,
- additional workload,
- higher industry competition,
- wrong bookings.

Problems of using the Internet
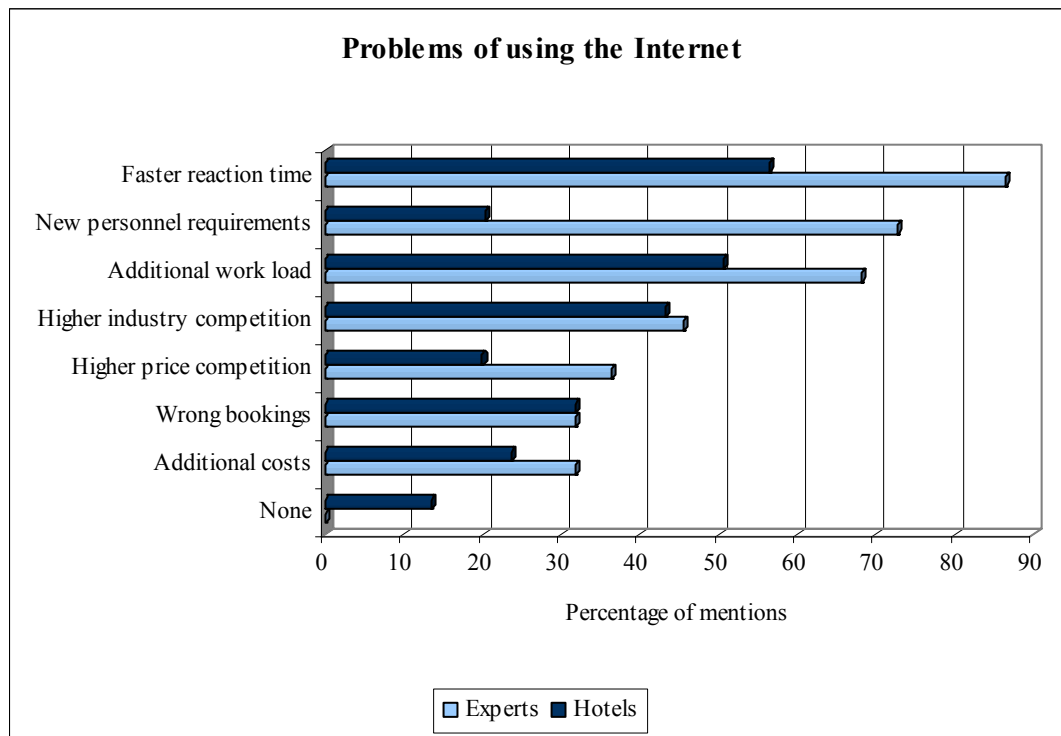
Figure 40. Problems of using the Internet (experts vs. hotels)

Regarding the percentages, we can see that the hotels are rating the problems not so intensively as the experts. In contrast to the view of the experts especially *new personnel requirements* are not recognized as evident problem (only 20% of the hotels compared to 66% of the experts). This could be explained by the fact that the survey participants are already using the Web for their business, and thus, are already aware of the technology. The experts primarily see the picture of the whole industry (also including the organizations which are not using the Internet up to now), thus they rate this problem as being much more important. The same argument can explain the differences between the ratings for additional workload.

As the most relevant problem we can identify *organizational problems* in the daily work caused by the Internet such as wrong bookings, additional workload and faster reaction time. Also the personnel requirements should not be underestimated and can also be assigned to organizational aspects.

6.3.2.4   Usage of the Internet

As already mentioned, the survey was addressed to organizations that are already using the Internet for their daily business. Thus, one of the core parts in the survey concerned the current use of the Internet. The results provide a picture of the tools and services in use, as well as a feeling about the degree of importance for the daily business. The first question in this part tried to evaluate the importance of the Internet as a distribution channel for the hotels.

Figure 41 represents the results of the hotel survey compared to the estimations of the experts.
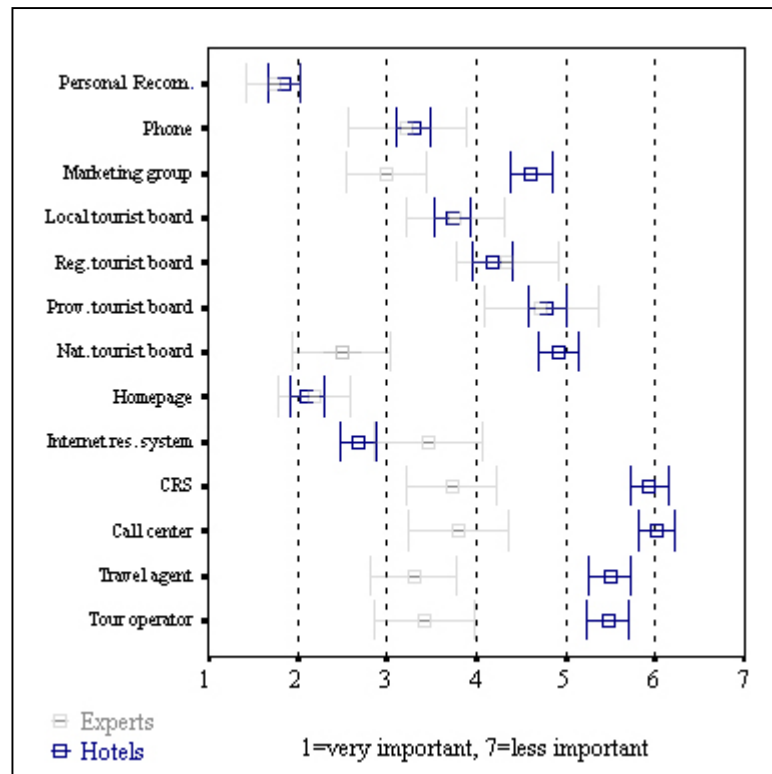
Figure 41. Importance of distribution channels (experts vs. hotels)

As the most important channel we evaluated *personal recommendation* ($\bar{x}$ = 1.9). This is underlined by both, experts and hotels. The Internet, in the appearance of the *Homepage* ($\bar{x}$ = 2.1) and *Internet Reservation System* ($\bar{x}$ = 2.7), is already in the second place as a distribution channel for the hotels. Classical intermediaries like travel agents and tour operators, are more or less unimportant with a rating of $\bar{x}$ = 5.5 and CRS and Call Centers are the least important distribution channels with the highest rating ($\bar{x}$ = 6) for our survey participants. The role of the tourist boards (regional, provincial as well as the national tourist board) is surprisingly considered as not important, too. Only the national tourist board was rated as an important channel by the experts, but in sharp contrast it was rated as unimportant by the hotels ($\bar{x}$ = 4.9). Interesting is also that for the hotels the marketing group is not as important ($\bar{x}$ = 4.6) as thought by the experts. Organizations that are member in a marketing group rate it with an average of $\bar{x}$ = 3.2 still higher than the experts rating with $\bar{x}$ = 3.

These results present a first picture about the importance of the Internet for SME hospitality organizations. Today, the Internet plays already a major role in their distribution strategies, thus it will be worthwhile for us to create a more detailed picture about the use of the Internet to evaluate potential success factors.

We also asked the survey participants to rate 22 different online distribution channels with a number between 1 and 7. A rating of 1 indicates that this channel is very important and 7 that the channel is not important. In addition to the hotel homepage, the local, regional, provincial and national tourist board homepage, as well as 17 of the most common Internet Reservation Systems on the market (evaluated together with the Austrian hotel association in a personal interview) were listed as distinctive channels. Figure 42 shows the eight most important channels as rated by the hotels.
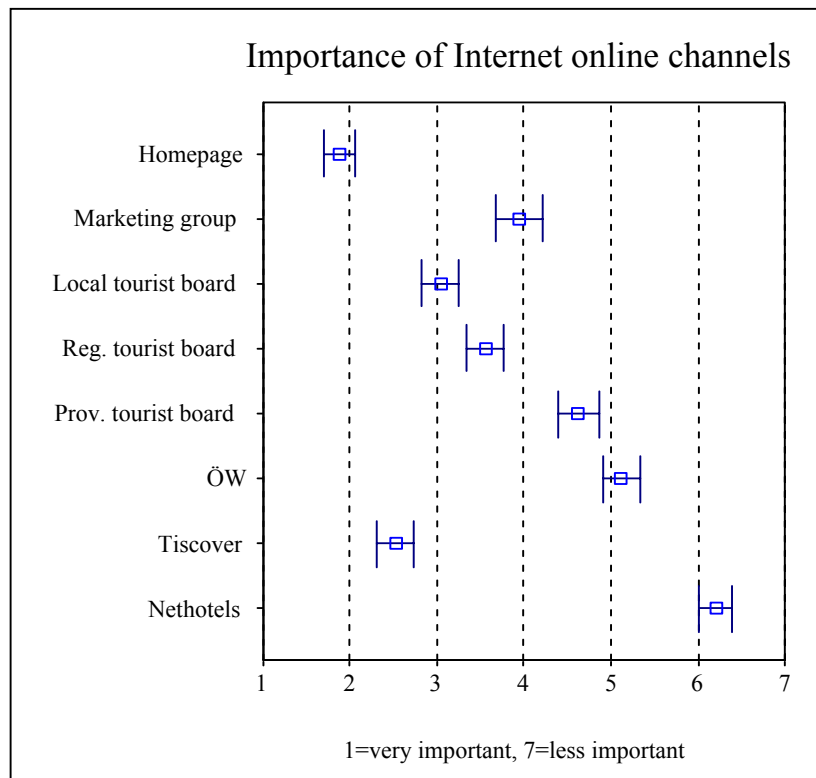
Figure 42. Importance of online channels in Austria

The most important online channel is the hotel homepage ($\bar{x}$ = 1.8) followed by the Tiscover system ($\bar{x}$ = 2.5) and the homepage of the local tourist board ($\bar{x}$ = 3). The regional tourist boards ($\bar{x}$ = 3.5) and the marketing groups ($\bar{x}$ = 3.9) are also still slightly positively rated. The provincial representation, the Austrian national tourist board, and the system Nethotels were more or less rated as less important. All other systems are rated with an average score higher than 6.5, thus they can be regarded as unimportant. However, a very interesting fact is that facilities in Vienna, i.e. facilities that are focusing on city and cultural tourism, have a slightly different structure in the use of their online channels. The importance of the homepage ($\bar{x}$ = 2.7) and the reservation system Tiscover ($\bar{x}$ = 3.5) is far less important. In Vienna, the provincial tourist board (Wien Tourismus) has a strong position ($\bar{x}$ = 3.2) and other Internet Reservation Systems such as Nethotels, Hotels.or.at, or Venere.com are more important than in the other provinces. The role of "Wien Tourismus" is easy to explain, as they have been running a booking center on the Internet using the Nethotels system for several years. The strengths of the other systems can be explained by the fact that they are mainly focusing on the urban area with their marketing activities.

Another question, which was posted to the hotels as well as to the experts, focused on the use of the different applications and tools provided by the Internet. We defined 12 different possibilities provided by the Internet, which hotels can use today. We asked to identify those services the hotels already use extensively for their business. There was no limitation of answers. The results in Figure 43 show the comparison between the expert and hotel survey. Homepage and eMail can be seen as the most important applications. As in this survey we are focusing exclusively on organizations which are already using the Internet for their daily business, this is not a surprising result. It can rather be seen as verification. More interesting are the other applications, for example, the already extensive use of online reservation with more than 80% of all participants; also about 41% indicate that they already provide online booking possibilities.

Use of the Internet in the hotel sector
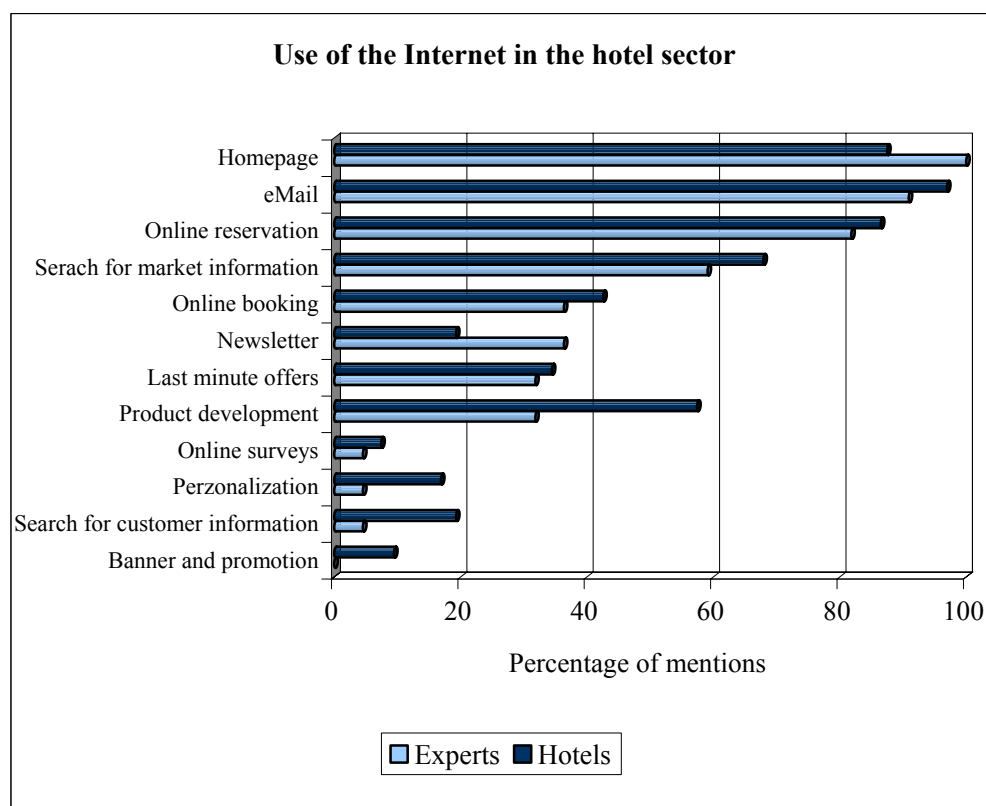
Figure 43. Use of the Internet in the hotel sector (experts vs. hotels)

One of the largest difference in the assessment of the experts and the information of the hotels lies in the use of newsletters, where just 19% of the hotels confirmed to use it. Interesting is also the fact that the hotels are much more aware that they are already performing product development (about 58%) compared to the much lower estimation of 30% by the experts. Regarding the use of online surveys, personalization, and banner and promotion, the hotels see themselves much more active than the experts think. One explanation for these results could be the different understanding of the definitions. Experts will have a different interpretation of product development or personalization than SME hotels.

To summarize the results of this section we can wrap up that the Internet is already of large importance (second position) as a distribution channel for SMEs. Regarding the different possible online channels in Austria, the homepage, the Tiscover system and the tourist boards play a major role. The situation in Vienna is a little bit different as there is more variety in the use of the systems and as the "Wien Tourismus" is running a call center of major importance. The extensively used applications are primarily more static presentations and eMail supported activities. More interactive and sophisticated applications are still less used.

6.3.2.5   Share of Online Bookings

To get a better feeling of the importance of the Internet for the daily business we also asked the survey participants to give us some related indicators. First, we asked the hotels about the budget available for Internet activities. About 62% of the survey participants indicated that they have less than € 1,000 online budget per year. Only 10% stated a budget above € 3,000 Euro (see Table 20).

Table 20. Online budget of the survey participants (N=296)

Online Budget	%
0 - 1,000 Euro	61.49
1,001 - 3,000 Euro	27.36
3,001 - 5,000 Euro	7.77
5,001 - 10,000 Euro	2.70
above 10,000 Euro	0.68
Total	**100**

Next we asked hotels to state how many requests per month and bookings they are receiving over the Internet. We have to keep in mind that such numbers have to be handled with caution, as many enterprises have not such detailed information available. Anyway, the numbers provide a better feeling of the amount of bookings and information requests. In average, the participants have 79 requests per month over the Internet and register 16.4 bookings per month. Table 21 shows the average online bookings categorized by number of beds. The numbers have to be interpreted in relation to the number of beds, because for an SME with eight beds, three bookings per month are already reasonable. In any case, facilities in the categories 31 - 50 beds and 51 - 100 beds seem to be the big players regarding the number of bookings per month.

Table 21. Number of beds and average online bookings per month

Number of beds	Average online bookings	N
1 - 10 beds	3.0	95
11 - 30 beds	5.5	95
31 - 50 beds	24.8	46
51 - 100 beds	54.9	38
101 - 200 beds	36.8	19
> 500 beds	39.7	3
Total	**16.4**	**296**

Figure 44 shows the average number of online bookings in the 9 Austrian provinces. Organizations in Vienna seem to be the leaders in terms of absolute numbers. They stated an average number of 106 online bookings per month. As this result is just the picture of a small number (1.6%) of facilities in Vienna, it has to be treated with caution. This is also underlined by the fact that the survey participants in Vienna were mostly larger organizations. Also very interesting is the fact that Tyrol is behind Salzburg only in 3rd position, where we would have expected the leadership especially for this province. Tyrol is the largest tourism destination in terms of overnight stays in Austria and the provincial tourist board of Tyrol was always pioneering in the use of ICT. Tiscover was originally founded by the Tyrolean tourist board 11 years ago, so we would have expected a dominance of accommodation facilities from this province.
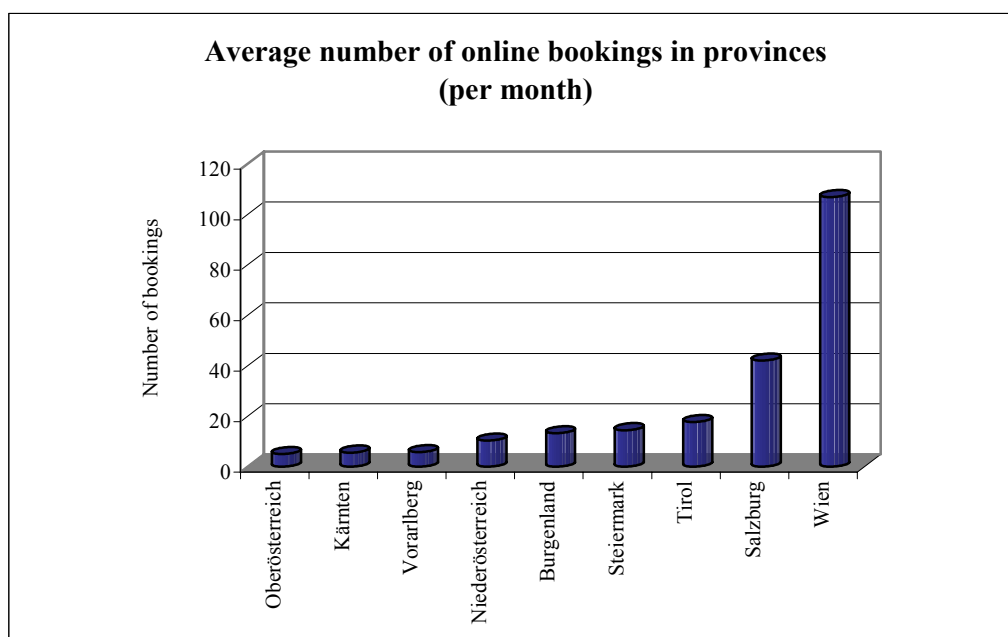
Figure 44. Average number of online bookings in the Austrian provinces (per month)

As already mentioned, these absolute numbers have to be treated with caution as there are large variances in the numbers. The numbers are also still hard to interpret regarding their importance for the organizations. Thus we also decided to ask for parameters regarding the shares of online bookings in relation to the complete bookings.

Regarding this share of online bookings, Figure 45 illustrates the evaluated shares classified by the number of beds. This gives us an overview of the role of the Internet for the larger enterprises and the SMEs. The figure shows very well that the importance of the Internet increases with a decrease of the number of beds. For facilities with 1-10 beds, the Internet share counts for about 24% of all bookings. For very large hotels with more than 500 beds, the online share is below 5%. This can be explained by the distribution channels of the hotels. Larger hotels normally have different channels (tour operators, CRS, hotel chains) that have been well established over the years, smaller facilities have normally none or fewer different channels to distribute their product. Thus, the Internet provides a major opportunity to reach customers for them.
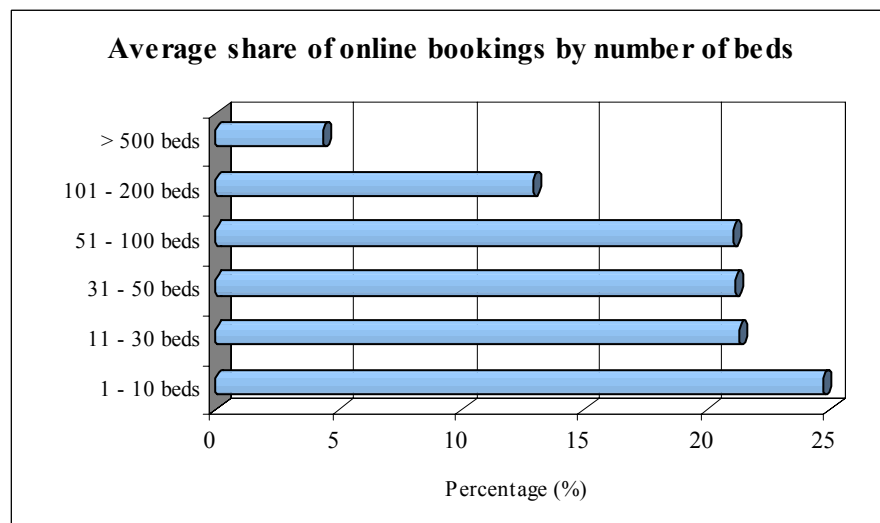
Figure 45. Share of online bookings by number of beds

We also asked to state the estimated amount of the Internet turnover (see Figure 46). About 68% of all survey participants said that they have less than € 10,000 turnover through the Internet. 23.3% stated that the Internet turnover does not exceed € 1,000 and 25.3% stated an Internet turnover between € 1,000 and € 5,000. Finally, 8.4% specified a turnover above € 50,000 a year.
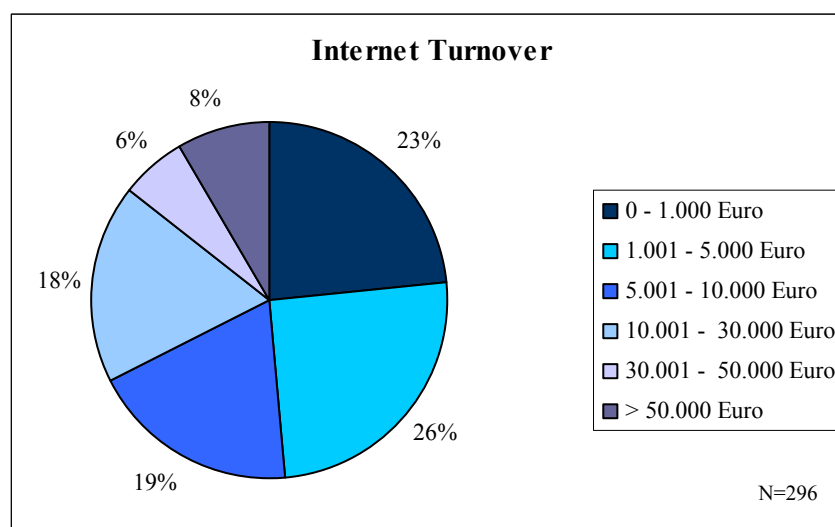
Figure 46. Internet turnover of the survey participants

Regarding the Internet turnover compared to the number of beds, we can see that the turnover increases with the number of beds (see Figure 47). As in general larger enterprises make a higher turnover this is understandable. Facilities with 31- 50 beds and those between 51 - 100 beds seem to be at the best position as their Internet turnover is above average in the higher categories. For example, we evaluated that just 6% have a Internet turnover

between € 31.000 and € 50.000, whereas in the category between 31 - 50 beds about 13% make a turnover of this amount. Similar is the situation for facilities between 51 - 100 beds.
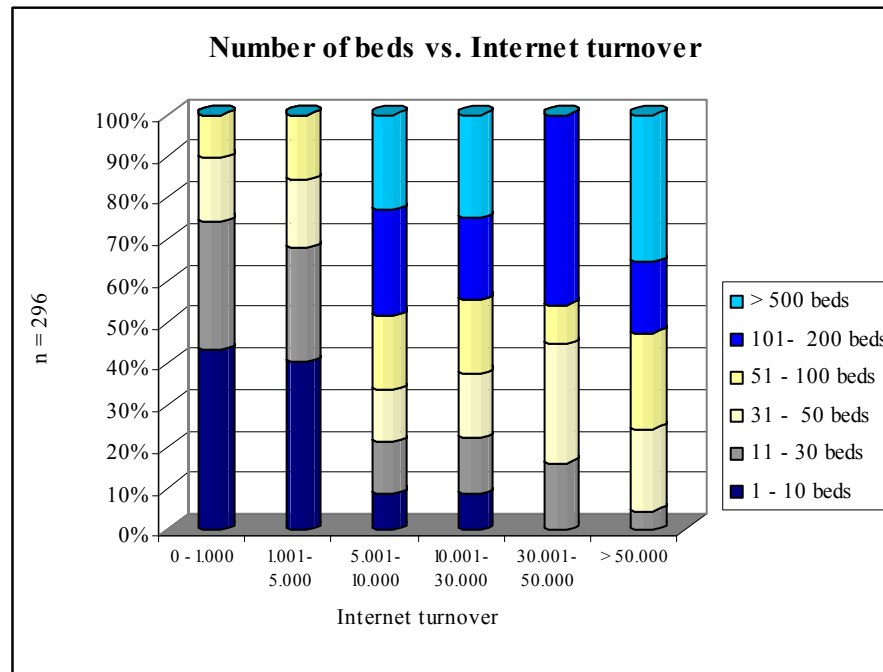
Figure 47. Number of beds compared to the Internet turnover

6.3.2.6   Possible Success Indicators

The previous sections provided a comprehensive overview of the use of the Internet. In the next part, we try to extract some success indicators. Based on the data of the hotel survey, we are looking for significant relations from which we might derive possible success indicators. The basic question might be: "*Why are some facilities much more successful using the Web than others, or which ones are able to gain competitive advantage*?" Afore mentioned in section 6.3.2.4. we asked a question in the survey where the participants had to state the tools and services they are already using for their business. It is important to point out that we were just looking at the use of the different tools and services and not focusing on the intensity and quality of use. For instance, a bad homepage or newsletter could also be a negative success indicator. Thus, this has to be noticed as a limitation of our study because we are just looking at a strategic level.

Since the first two services, *Homepage and eMail*, are nearly used by 100% of the participants, we are not focusing on them. They were only included as control parameters, as we assumed that all survey participants are already using the Internet for their business. The actual use of the services by the survey participants has been illustrated in Figure 43.

Furthermore, the results in the last section showed that the *size of an accommodation facility* is an *essential indicator for the share of online bookings as well as for the Internet turnover.* Whereas the share of online bookings decreases with the number of beds, the Internet turnover increases (as also the general turnover increases). We have already identified that

facilities between 31-50 and 51-100 beds seem to be in the best position, compared to the other size categories as their Internet turnover is above average in the higher categories.

We have to consider that the use of a service or tool will not necessarily influence the Internet turnover or share of online bookings. To outline possible dependencies we use the share of online bookings and try to display possible dependencies between the use of a specific service and the share of online bookings. We tried to estimate multinomial logistic regression models, where we had to recognize that the dataset was to small (more specifically, there were too many empty cells) to get useful results. We are focusing on descriptive statistic to outline possible interdependencies. The following part illustrates the identified dependencies of the share of online bookings on the used services (tested with a Chi-Square test).

As the first possible success indicator we tested the *use of the Internet for product development*. Out of 296 facilities, 170 (57%) indicated that they are using the Internet for product development. The Chi-Square test showed ($p=0.043$) that there are dependencies between the use of product development and the share of online bookings. Figure 48 illustrates that a higher share of online bookings is observed within those enterprises that use the Internet more extensively for product development. 71% of all enterprises with a share of online bookings > 50% are using the Internet for product development. Thus, it might be a possible success indicator, especially, if we are considering that organizational problems are most often indicated to be an obstacle for the successful use of the Internet. Organizations which are actively using the Internet for product development are integrating it into the processes and the firm's value chains. Therefore, they are also able to gain competitive advantage from use of the Internet.
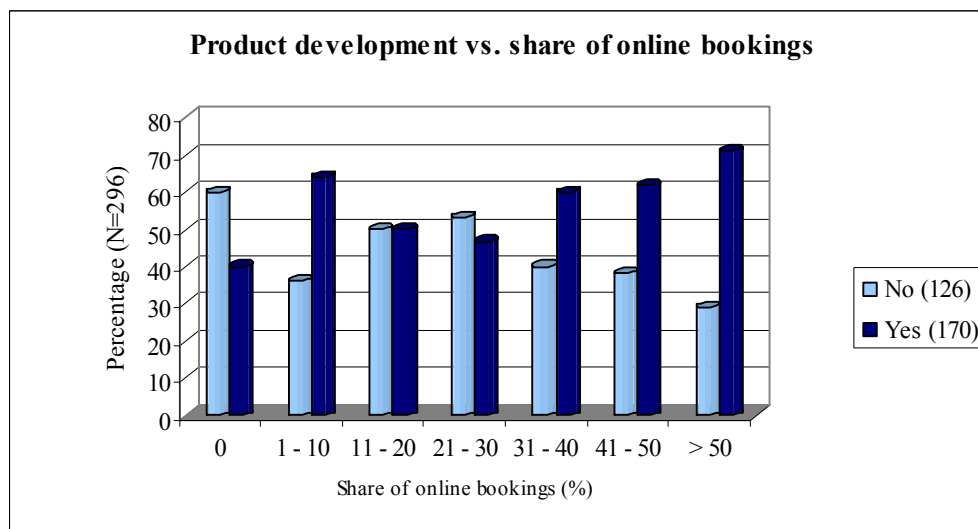
Figure 48. Use of the Internet for product development vs. the share of online bookings

Another tested service is the *use of the Internet for personalization.* The Chi-Square test showed dependencies with $p=0.033$. As depicted in Figure 49 just 50 (or 16.8%) participants indicated that they use personalization for their Internet activities, but we can

easily see that the use of personalization is much more extensively applied by enterprises which have stated a higher share of online bookings. For example, 34% of those facilities which stated a share of online bookings >50% use the Internet for personalization. This can be regarded as a *customer-oriented advantage* enhancing the relation to the customer by addressing her/his needs in a personalized way.
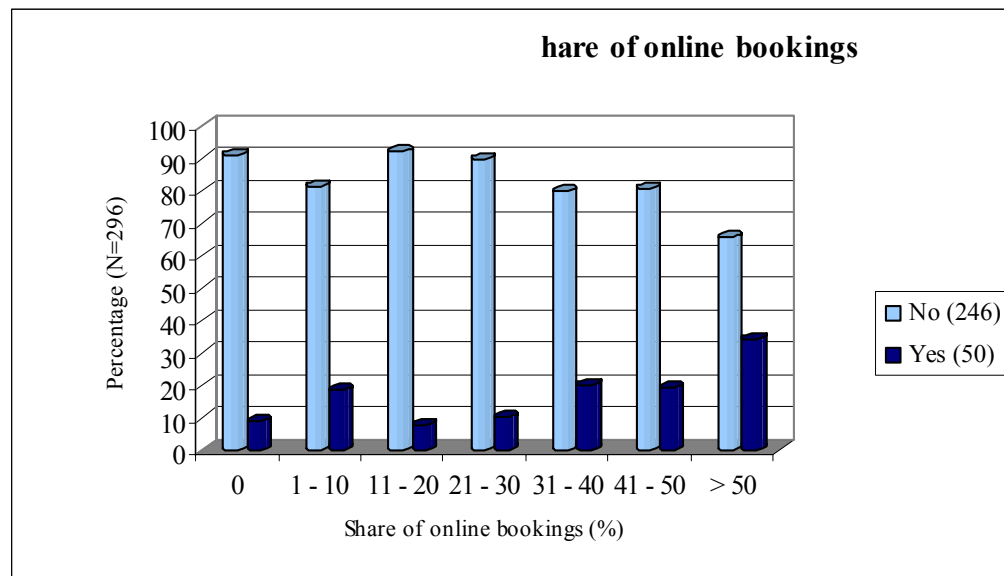
Figure 49. Use of the Internet for personalization vs. the share of online bookings

Next, we considered *the use of online surveys* as a possible success indicator regarding the share of online bookings of an accommodation facility. Online surveys can be regarded as *value capturing opportunities* also enhancing customer relationship. In our survey, only 22 (7.2%) participants are conducting *online surveys*. The Chi-Square test showed dependencies with p=0.028, we could see that those facilities which more often use the Internet to conduct online surveys can also register a higher share of online bookings.

We performed the same procedure for *the use of online booking*. 126 (42%) survey participants stated that they are using online bookings for their business. Again, the test showed dependencies between the use of online booking services and the share of online bookings within an enterprise. As the use of such a service is the basic condition to perform online bookings, this is not very surprising. Therefore this result served as important indication for the validity of the applied tests.

For all other services we could find no significant dependencies on the share of online bookings, thus we can summarize the identified dependencies in Table 22.

Table 22. The share of online bookings in relation to the use of services

Used service	Identified dependencies (Chi-Square Test)
Use of online reservation (reservation per eMail)	-
Search for market information	-
Use of online booking (with transaction)	x
Newsletter	-
Last Minute Offers	-
Use for product development	x
Online Survey	x
Personalization	x
Search for customer Information	-
Banner and Promotion	-

x = possible dependencies

We have already described that the size of an accommodation facility is also highly influencing the ability to use the Internet for business activities. Regarding the number of beds we can suggest that there are dependencies on the use of online reservation, the search for market information, online booking, the use of a newsletter, last minute offers, and the use of the Internet for product development. In all cases we see dependencies in the way that a larger number of beds imply a more intensive use of the mentioned services and tools. Regarding the Internet turnover, most of the services showed dependencies. To summarize, we can assume interdependencies between:

- the used services,
- the number of beds, and
- the share of online bookings.

As depicted in Figure 50, we have to assume a triangle relationship between these three indicators. The number of beds and the used services determine and influence the share of online bookings, but the used service can also indirectly influence the number of beds (e.g. by increasing the occupancy rate). Vice versa the share of online bookings might influence the use of Internet services as well as the number of beds by offering new financial possibilities.
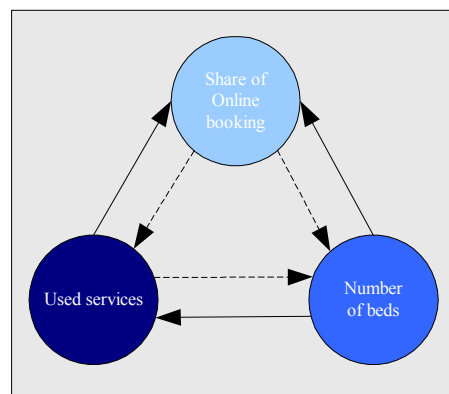
Figure 50. Interdependencies between the used services, number of beds, and the share of online bookings

6.3.3 Summary of the Hotel Survey

The hotel survey provided a very comprehensive picture about the use of the Internet in the Austrian accommodation sector. We wanted to evaluate the ability of organizations to gain competitive advantage by using the Internet. The results of the survey were compared to the results of the expert's survey, and based on our defined threats and opportunities through the evaluation of possible success factors we will try to formulate several recommendations in Chapter 7. Conclusions that can be drawn from the hotel survey with 296 accommodation facilities in Austria are presented in the following subsections.

6.3.3.1 Threats of the Internet

As the most relevant problem of the Internet we can define *causing organizational problems* in the daily work, e.g. wrong bookings, additional workload and faster reaction times. This was also underlined from the industry experts (see Chapter 6.2.2.2) and was already outlined by Buhalis (Buhalis 1994; Buhalis 1997; Buhalis 2002). Also the *personnel requirements* should not be underestimated and can be assigned to organizational aspects of caused problems. From the point of view of the hotels this was not seen as such important, but this can be reduced to the fact that all of the survey participants are already using the Internet for their daily business. The surveys showed that the industry experts rated the threats generally as more important, compared to the hotels.

There were no indicators that facilities which are a member of a marketing group are in a stronger position than others. Thus, we cannot argue that marketing groups are necessarily reducing the threats of the Internet. We showed that some specific services can be seen as possible success indicators for the share of online bookings. These services were:

- product development,
- personalization,
- online surveys, and
- online booking.

Thus, the use of such services might be a possible strategy to overcome the threats caused by the Internet.

6.3.3.2 Opportunities of the Internet

We can argue that the advantages are primarily seen as using the Internet as a *tool for distribution by increasing the occupancy rate and reducing the distribution costs*. Second, it is seen as a tool to increase the *direct customer contact*. This was underlined by the industry experts as well as by the accommodation facilities.

Furthermore, the results of the survey showed for most accommodation facilities that the use of the Internet is already an essential part of the daily business. As indicated, the Internet is one of the most important distribution channels for the survey participants. Regarding the systems used for online distribution, they indicated that the individual *Homepage* followed by a *Tiscover presentation* and the *local and regional tourist boards* play the major role.

This can be seen as valid especially for SMEs within holiday destinations. Facilities in urban areas, in particular in Vienna, use more different channels to distribute their products. When it comes to the used services and applications, the survey showed that above 85% have a website and about 90% use eMail for their daily business. Also more than 80% provided online reservation on their pages. This is a very high share, especially if we compare these results to a survey in Switzerland, which indicated that only 38% of Swiss hotels have a website (Frey, Roland et al. 2000). However since we addressed only facilities which are already working with the Web, this fact is easily explained. More interesting are the other used Internet services, such as online booking, last minute offers, newsletter, or product development. This illustrated that most enterprises still don not use the capabilities of the Internet to interact with the consumers, especially as the direct customer contact has been identified as one of the most important opportunities. We also identified the use of online booking, online surveys, personalization, and product development as possible success indicators regarding the share of online bookings. As many facilities are still not using these services, they don not make use of opportunities provided by the Internet.

Regarding the share of online bookings, enterprises in the categories between 31-50 and 51-100 beds seem to gain most from of the Internet. They indicated an average of 54.9 online bookings per month and a share of above 20%. Therefore, we can indicate that especially for these enterprises the Internet already plays an essential role for their business activities. They have the critical size to adopt their processes to the new requirements. Larger hotels are mostly less flexible and part of a hotel chain, whereas very small facilities (< 30 beds) struggle with the organizational requirements.

Chapter 7

Recommendations

We showed that ICT developments introduce a wide range of opportunities and threats for accommodation facilities. The aim of this dissertation is to explain the role of the Internet for the SME accommodation sector in Austria and finally to draw recommendations for different players. In this chapter we derive these recommendations to enhance the competitive position of accommodation facilities by using the Internet. We will try to distinguish between short term and mid term recommendations. Within the first part of this chapter we line out the business value of the Internet as derived form our surveys, in the second part we formulate our recommendations for SME accommodation facilities in Austria. Furthermore, we will also take a short look at possible strategies for players within the value system.

7.1   Business Value of the Internet - Threats and Opportunities

We have identified several business values of the Internet because of its very specific characteristics. It enables to lower coordination cost throughout the industry. Electronically linked producers and retailers will be able to lower their costs by reducing intermediary transactions and unneeded coordination because of direct electronic transactions with the consumer. It lowers physical distribution costs by allowing the electronic transmitting of information by reducing the cost of distribution. Furthermore it lowers entry barriers into industries and increases the power of buyers. The consumer will have free market access to all suppliers and will have increased choice at lower prices.

For the accommodation sector in Austria this causes several changes. Regarding the five competitive forces for the accommodation sector in Austria we can conclude that:

- The threat of substitute products/services and an increased power of suppliers are not seen as evident.
- An increased rivalry among existing firms is also not that relevant from the point of view of the industry experts.
- On the other hand, the Internet increases the threat of new entrants (in the form of new intermediaries) by reducing the entry barriers.
- The Internet increases the power of buyers by reducing of the switching costs.

- The Internet offers new possibilities to bypass intermediaries and to address customer needs directly; the power of such intermediaries is reduced.
- The Internet offer new tools and services (e.g. personalization) to place new products for individual customers.

We identified that the most evident threats for the hotels are the faster reaction time, additional workload and new personnel requirements. In general these are *organizational problems*. The ability to handle these problems will be a very important success factor to gain competitive advantage by using the Internet.

Opportunities are seen by using the Internet *to distribute niche products* and *address the individual customer*. It can be seen as one of the largest threats that SMEs failing to adapt their Internet presence and therefore being unavailable in the marketplace will be inaccessible to customers and intermediaries. We also identified following services as success indicators of using the Internet: *online booking, online surveys, personalization, and product development*. Furthermore, we see it as an essential success factor for a hotel to create organizational structures, such as defining responsible persons or specific business processes (e.g. using the Internet for product development) for the introduction of new Internet technologies. Furthermore, it is essential to address the consumer need directly in a personalized manner to enhance the customer relationship and decrease switching costs.

7.2   Strategies and Recommendations for Competitive Advantage

The situation of accommodation facilities has to be regarded under the view of three different groups. As depicted in Figure 51 we can define three clusters using the number of beds as parameter:

- facilities < 30 beds,
- facilities between 31 – 100 beds, and
- facilities > 101 beds.

Facilities smaller than 30 beds have a high potential to use the Internet for their business, most of them also indicated a very high percentage of online bookings, but they are also struggling with the organizational problem to integrate the Internet into the business processes. We indicated that they are not using the Internet so extensively (see the smaller bubble in Figure 51); especially regarding the more dynamic opportunities like online booking, personalization or product development.

Accommodation facilities with 31 – 100 beds seem to be in the best position compared to the two other groups. They have a high share of online bookings and are already using the different tools and services extensively (larger bubble in Figure 51). The have already the capacity to adopt the Internet for their business and are flexible enough to use services like product development or personalization.

Larger facilities (> 100), in general, have a lower share of online bookings, even though they are extensively using Internet services. Compared to the two other groups, the Internet

is not as important for product distribution because they are also using other channels. They have more often the problem to adopt their business processes to the new requirements of the Internet as they have already more static organization structures.
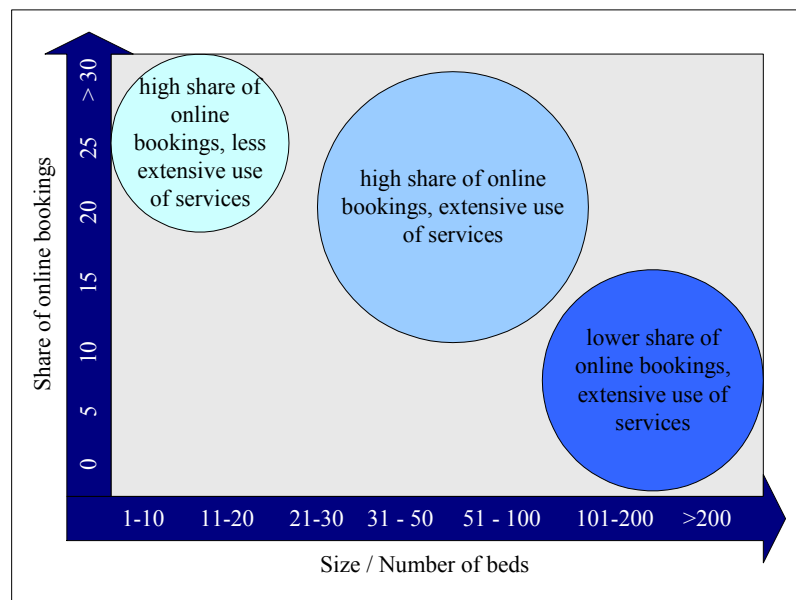
Figure 51. Three groups of accommodation facilities

To draw our recommendations, we first define some general suggestions. In general SMEs need to take advantage of using ICT to reduce their marginalization from the mainstream tourism industry and to make their products available to institutional and independent buyers. The Internet provides them with two major opportunities: *The direct customer contact* and *a new worldwide distributions channel.* They may be able to achieve competitive advantage if they manage to develop and position their niche products as unique. Enhancing the professionalism of SMEs, through marketing and management training, can especially support smaller companies.

As illustrated in Table 23 we can define several recommendations for the SME accommodation facilities to improve their Internet strategy. We differentiate between the size of the facilities, as defined above, and short-term and mid-term recommendations. As the developments within the ICT area cannot be estimated easily for a longer term, we are not trying to give recommendations for this time scope. We have to mention that the recommendations are just suggestions to improve or enhance the Internet activities and have to be evaluated for each specific facility. Some of the recommendations are unique for a specific group, some are valid for several groups.

Furthermore, we have to take into account that some of the identified threats of opportunities can become obsolete within a short time. The tourism industry is living in a time of change, market structures as well market players are changing very fast, thus we can only provide a snapshot of today's situation.

Table 23. Short-term and mid-term strategies to use the Internet

Group of accommodation facility	Short-term strategy	Mid-term strategy
< 30 beds	- Management and marketing training - Adopt internal processes - Use online booking - Capture value about the consumer by conducting online survey - Cooperate within a marketing group with strong Internet activities	- Management and marketing training - Use product development - Use personalization - Provide a newsletter
31 - 100 beds	- Training of employees - Capture value about the consumer by conducting online survey - Enhance online booking - Provide last minute offers - Provide a newsletter	- Use personalization - Niche products to attract new market segments - Banner and promotion
> 100 beds	- Training of employees - Adopt internal processes, define responsibilities - Capture value about the consumer by conducting online survey - Enhance online booking - Provide last minute offers - Provide a newsletter	- Use personalization - Niche products to attract new market segments - Banner and promotion - Capture value by Web mining - Disintermediation

In addition, we can draw some recommendations for players that are acting within the value system of SME accommodation facilities. *These players are new intermediaries, marketing organizations, tourist boards,* and *the public sector.*

New Intermediaries, such as Tiscover, are those players which provide many of the new tools and services. They open new distribution channels and the direct contact to the customer. Most of these new players are mainly focusing on the intermediary part. The number of online distribution and booking systems is still increasing. Today there exist about 35,000 online booking systems a customer can access to book a hotel room. This causes also problems for the accommodation sector. Which system should they use? How many they are able to handle in the daily business? As we saw, the most evident problems for the hotels are the organizational challenges thus the new intermediaries should take this into account and offer their customers tools and services to overcome these challenges. Furthermore, we have identified several tools and services the accommodation sector should use to gain competitive advantage. Especially for smaller facilities, these tools have to be provided by these new intermediaries. They have to support the SME accommodation

facilities in their activities with automated and simple tools and services, and training activities to apply these tools.

Marketing groups should improve their internal activities and enhance the use of the Internet within their member community. They have to guide and assist their members and could also strengthen their own position by providing several services or tools (e.g. a newsletter tool or conducting online surveys). They have also the power and ability to motivate their members to use the Internet much more for product development and online distribution.

Tourist boards and destinations have similar possibilities as marketing groups. The tourist boards are in close contact with the accommodation facilities and can take influence on their activities. They can, for example, increase the online booking activities by only including bookable facilities into their website. They can organize training activities and strengthen the Internet awareness of their members by providing financial support. This is especial evident for organizations of the public sector like the chamber of commerce or provincial tourist boards, which can actively motivate their members to use the technology.

Chapter 8

Conclusion

The aim of this thesis is to explain the role of the Internet for accommodation facilities from the point of view of industry experts as well as of representatives from the accommodation industry. Larger hotels and hotel chains have always had a greater need of ICT and have already a higher level of ICT usage. However, the Internet can be seen as a powerful instrument for the SME accommodation sector to overcome this ICT disadvantage. By using the Internet, SME hotels can contact their customers directly, intermediaries like travel agents are bypassed, and SMEs which have had no possibility to use distribution channels yet, can use the Internet as an additional and new channel. This work addresses this aspect by formulating three major objectives:

- to define a framework through which competitive advantage can be systematized and evaluated from eCommerce solutions,
- to consolidate the business values of the Internet to the accommodation sector, and
- to explore the way that competitive advantage of SME accommodation facilities can be enhanced.

We have presented a framework through which competitive advantage can be systematized and evaluated. We have defined generic threats and opportunities caused by the Internet which were adopted especially for the SME accommodation sector. Out of this, we have generated a number of questions, which mostly corresponded with the identified threats and opportunities and evaluated them within an expert survey. This survey provided us with a comprehensive picture of the use of the Internet within the sector, the role of the threats and opportunities. The received information linked with enterprise information from the industry survey gave us the possibility to draw a picture of the strategic use of the Internet and of the ability of companies to gain competitive advantage. We can argue that the advantages of the Internet are primarily seen as *tool for distribution*, *by increasing the occupancy rate and reducing the distribution costs* and, second as a tool to increase the *direct customer contact*. This was underlined by the industry experts as well as by the accommodation facilities. We also showed that the use of the Internet for *product development, personalization, online surveys and online booking* could be seen as possible success indicators for the share of online bookings. Regarding the size of the facilities, we identify three major groups,

according to their ability to gain competitive advantage from the Internet. We categorized the groups by the number of beds of the facilities, and we could show that especially the facilities with 31-100 beds are able to gain competitive advantage by using the Internet.

These findings were aggregated and we formulated several recommendations for the three groups to improve their Internet strategy. These recommendations provide a snapshot of today's developments and should help players to define their strategies. In general we can draw the conclusion that innovative players who appreciate the power of the Internet and adopt their business strategy and internal processes to the new demands will be able to compete on an equal footing with some of their larger competitors.

Further research can be conducted by using the theoretical framework to evaluate other sectors within the travel and tourism industry. This could provide a more comprehensive insight view about the changes within the industry value chains. Furthermore, our research was mainly focusing on a strategic evaluation of used tools and services of the Internet. To draw more specific recommendations for industry players, further research projects should look more deeply on quality parameter of the used services and try to define empirical models to evaluate their ability for competitive advantage.

Last but not least we try to disseminate the results of our research in different workshops and presentations to the industry players and will therefore be able to get feedback from the industry. This will provide valuable input for a more thorough description and assessment of the individual activities for the different business strategies.

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Appendix

Screenshots of the Expert survey

Nutzung des Internet im Hotelgewerbe - Microsoft Internet Explorer provided by EC3

Frage 2 von 9

Das Internet bringt verschiedene Chancen für Betriebe einer Branche mit sich. Bewerten Sie folgende Aussagen für den Hotelsektor in Österreich:

(Benützen Sie die 7-stufige Skala: 1 bedeutet: große Chance, 7 bedeutet: keine Chance. Dazwischen können Sie abstufen.)

	1	2	3	4	5	6	7
Durch das Internet können Firmen zunehmend gebündelte Produkte und Leistungen anbieten (z.B. Pauschalangebote).		●					
Durch das Internet können Firmen einfacher Nischenprodukte anbieten (z.B. spezielle Angebote für bestimmte Kundenschichten).			●				
Firmen können durch die Nutzung des Internets personalisierte Produkte und Services anbieten (z.B. ein den Wünschen des Konsumenten entsprechendes Zimmer).			●				
Das Internet bietet Möglichkeiten einer dynamischen Preisgestaltung (z.B. Stammkunden bekommen einen speziellen Preis).			●				
Das Internet bietet die Möglichkeit für Vertriebskooperationen wie Revenue Sharing und Affiliate Programme.					●		
Durch das Internet können Endkunden direkt und schnell angesprochen werden. Zwischenhändler (z.B. Reisebüros) werden ausgeschaltet.				●			
Durch das Internet können Betriebe die Rolle eines neuen Zwischenhändlers übernehmen (z.B. ein Hotel kann zusätzliche Dienstleistungen und Services über das Web anbieten).				●			
Durch Web- und Datamining können zusätzliche Informationen über die Konsumenten und ihre Präferenzen gesammelt werden (z.B. eine Auswertung welche Angebote und Zimmer meines Betriebes im Detail nachgefragt werden).			●				
Durch Online Umfragen können zusätzliche Informationen über Konsumenten gesammelt werden (z.B. kann ein Hotel Informationen über die Präferenzen der Kunden sammeln).				●			

» Nächste Frage

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Nutzung des Internet im Hotelgewerbe - Microsoft Internet Explorer provided by EC3

Frage 3 von 9

Das Internet bringt verschiedene Gefahren und Änderungen in einer Branche mit sich. Bewerten Sie folgende Aussagen für den Hotelsektor in Österreich.

(Benützen Sie die 7-stufige Skala: 1 bedeutet: große Gefahr, 7 bedeutet: keine Gefahr. Dazwischen können Sie abstufen.)

	1	2	3	4	5	6	7
Das Internet bietet neue Möglichkeiten und Anwendungen für Substitutionsprodukte und Services.		●					
Das Internet reduziert die Eintrittsbarrieren für neue Mitbewerber (z.B. neue Hotels können sich schneller und leichter am Markt etablieren).			●				
Das Internet reduziert die Wechselkosten der Konsumenten, dadurch erhöht sich die Macht der Konsumenten(z.B. Kunden können schnell und einfach bei einem anderen Hotel buchen).			●				
Das Internet reduziert die Bedeutung der Zwischenhändler (Disintermediation) (z.B. Hotels sind nicht auf den Vertrieb durch Reisebüros angewiesen).		●					
Das Internet bietet neue Möglichkeiten und Anwendungen für Substitutionsprodukte und Services (z.B. das Hotel wird durch einen virtuellen Urlaub ausgetauscht).			●				
Durch das Internet können neue Zwischenhändler am Markt Fuß fassen (Reintermediation) (z.B. das Hotel muss sich mit neuen Partnern z.b. Tiscover beschäftigen).			●				
Durch das Internet wird die Rivalität innerhalb einer Branche erhöht, da nun mehr Betriebe miteinander in Konkurrenz stehen. Dadurch erhöht sich der Preisdruck für die Betriebe.		●					
Durch neue Anwendungen und Möglichkeiten die Konsumenten anzusprechen wird auch der Wettbewerb in einer Branche erhöht (z.B. da mehrere Betriebe einen virtuellen Rundgang in einer Branche anbieten sind alle Betriebe dazu gezwungen).			●				
Durch das Internet werden Produkte und Services einfacher vergleichbar, dadurch wird der Preis zunehmend zum wichtigsten Entscheidungskriterium für den Konsumenten.			●				

» Nächste Frage

Screenshots of the Hotel survey