CHALLENGES OF THE INTERNET FOR THE SME HOTEL SECTOR IN AUSTRIA

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Abstract: *ICT (information and communication technology) has a considerable impact on almost all areas of a company's activities, especially for companies operating in information intensive industries such as the travel and tourism industry. This paper concentrates on the implications of ICT for the accommodation sector in Austria and more specifically for the small and medium enterprises (SME) section of this market. The study explores the major threats and opportunities for hotels by evaluating our framework for competitive advantage in eBusiness through an expert survey and a hotel survey within the Austrian travel and tourism industry. In this paper we compare the results of the expert survey with first findings from the hotel survey.*

1. Introduction

ICT 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 strategy to gain competitive advantage. This affects every aspect of how business is conducted, changing internal processes as well as external relationships, modifying and restructuring entire economic sectors [2], [8], [10]. 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.

For the accommodation sectors it 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. The hotel product is increasingly being sold electronically, and price has been identified as one of the key motivators for encouraging customers to purchase online [9]. Both industry cost structure and the perishable nature of the product makes effective distribution particularly important in the hotel sector. A hotel room left unsold on any particular night cannot be stored and subsequently offered to the customer at a later date. Hotel companies use a variety of different distribution channels to help selling their product [3], [5]. While direct sales are most common, extensive use is normally made of a variety of intermediaries, including travel agents, tour operators, marketing consortia and

representative companies. However, the importance of electronic distribution channels has grown significantly in recent years. The Internet has dramatically changed the way people communicate, search information, make decisions, and particularly the way in which they buy goods and services. In our work the Internet is regarded as a potential strategic tool for competitive advantage for SME hotels in Austria. Based on our generic framework for competitive advantage in eBusiness [4] we identify several threats and opportunities for the hotel sector. These are evaluated by an expert survey with participants from the Austrian travel and tourism industry and a hotel survey in Austria.

2. Methodology

This study is based on a theoretical framework for the formulation and implementation of a competitive strategy by extending Michael Porter's *Model of Competitive Advantage* [6], [7] and using the *Logics of Value* concept, defined by Hans Akkermans [1]. By analyzing how the technology and market developments (market logic and techno logic) influence the 5 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 of a specific SME hotel and to gain competitive advantage. The framework includes the following major steps:

- In the first step we use the strategic concept of the five competitive forces [6], [7] to analyze an industry. This market-based view provides us with an overview of the development 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. This is the subject of the second step of our framework. The basic unit of competitive advantage is the 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 [1].
- The threats and opportunities are identified for the accommodation sector in Austria and evaluated by an expert survey. To get a broad picture of the use of the Internet as a strategic tool in the hotel sector we also conducted an online survey in the accommodation industry.
- Finally, the results will provide us with a detailed picture of the use of the Internet within the Austrian SME accommodation sector from the view of industry experts and the view of the hotels. By combining this data with our qualitative research about the opportunities of the Internet we will be able to offer recommendations for a competitive strategy.

3. Design of the Surveys

In the first step, we chose an expert survey with industry experts to evaluate the identified threats and opportunities for the hotel sector in Austria. The expert survey was designed as an online survey. To achieve a high response rate, we decided to formulate only 9 questions, as most of the contacted persons are in high management positions and very limited on time. The following topics for questions were chosen: identifying opportunities and threats for the tourism market players, identifying the threats for hotels caused by the Internet, identifying the opportunities for hotels provided by the Internet, and identifying the present use of the Internet. 110 questionnaires were sent by email to managers in or associated with the travel sector, and 22 valid responses were returned. This represents a participation rate of 20%. Regarding the management position within the organization about 50% represent the business leader or head of the company, whereas the other 50% can be allocated to middle management positions. The hotel survey within the accommodation

sector in Austria was conducted after the expert survey. It was designed as an online survey containing 19 questions which 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, and enterprise information.

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 accommodation facilities from all possible categories in Austria. It can be seen 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, 7,500 questionnaires were sent by email to accommodation facilities in Austria, and 297 valid responses were returned. This represents a participation rate of 4 %. The response rate can be regarded as well distributed over the different types of facilities and over the provinces in Austria.

4. Evaluation of Survey Results

In this paper we concentrate on the expert survey and compare the results with first findings from the hotel survey. 3 questions regarding problems and advantages of the Internet for SME accommodation facilities were used in both surveys to allow a direct comparison of the results.

4.1. Identifying Opportunities and Threats for the Tourism Market Players

The first question of the expert 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 for each player the degree of opportunities or threats caused by the Internet. For each player they had to assign a number between 1 and 7, where 1 represents strong opportunities and 7 strong threats. This question aims to illustrate 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 hotel sector is seen compared to the other players. 11 different players of the travel and tourism industry were identified for this question. As illustrated in Fig. 1 the experts regard airlines ($\bar{x} = 1.45$) as those organizations with the largest opportunities.
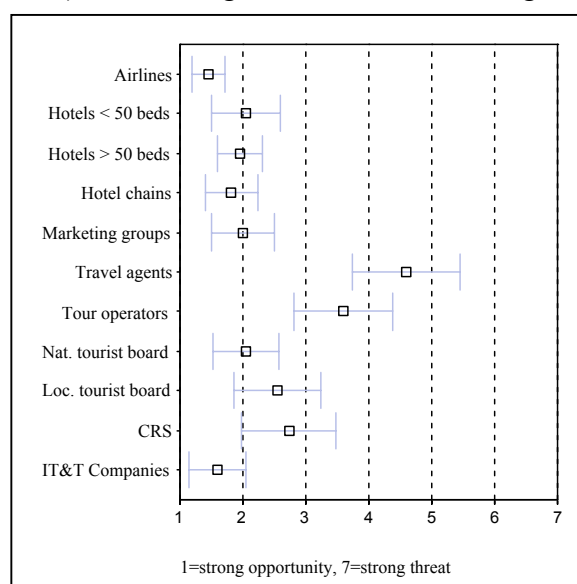

**Figure 1: Opportunities and threats for the tourism industry player (95%-CI)**

IT&T companies, hotel chains, and hotels with more than 50 beds are also very well rated with a score smaller than 2. Hotels with less than 50 beds are rated with an average of 2.05, thus their opportunities are also seen as strong and above average. The only players which are confronted with stronger threats than opportunities are the travel agents, which received a rating of 4.59 from the experts. Figure 1 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 within a larger 95% confidence interval. For example, travel agents are rated between 3.8 and 5.3, which indicates that the experts are more indifferent about their future role compared to Airlines, which are rated between 1.2 and 1.8. The situation 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 have also 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.

4.2. Identifying the Threats for Hotels Caused by the Internet

To evaluate the threats caused by the Internet we used the threats identified by Gratzer [4] to propose 8 statements for the accommodation sector (see Table 1). The experts rated the threats with a general average of 3.4 (see Fig. 2). All statements, except T_4, T_5 and T_6, were rated above average and regarded as relevant. Statement T_4 ($\bar{x} = 4.8$) is seen as the least important threat for the hotel sector and is also rated within a large confidence interval (CI=95%) between 3.8 and 5.8.

Table 1: Threats caused by the Internet

T_n	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 an 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 hotel 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.
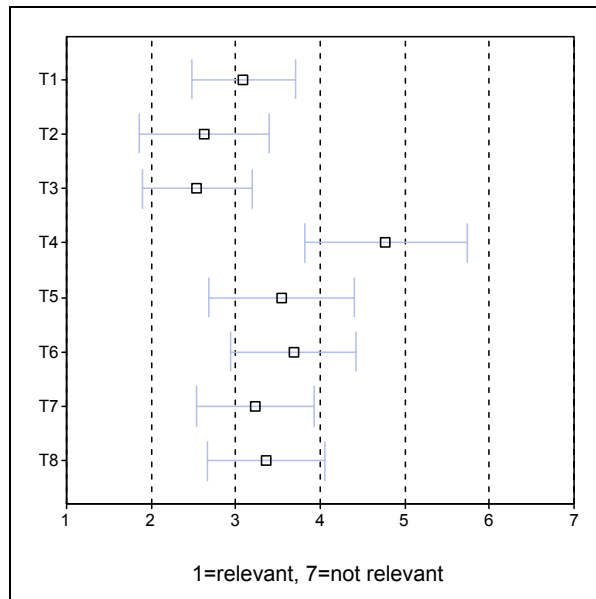
Figure 2: Relevance of the 8 threats (95%-CI)

The statements T_3 ($\bar{x}$ = 2.5) and T_2 ($\bar{x}$ = 2.6) received the highest rating as possible threats. This indicates that the most important threats are seen in the changes of the retail and distribution channels. 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.

Besides these more market view orientated statements we also formulated a question where the experts had to rate 8 different problems the Internet causes to hotels in their daily work. The same question was evaluated within hotel survey. Out of these 8 problems (see Fig. 3) the survey participants had to identify the 4 most important ones.
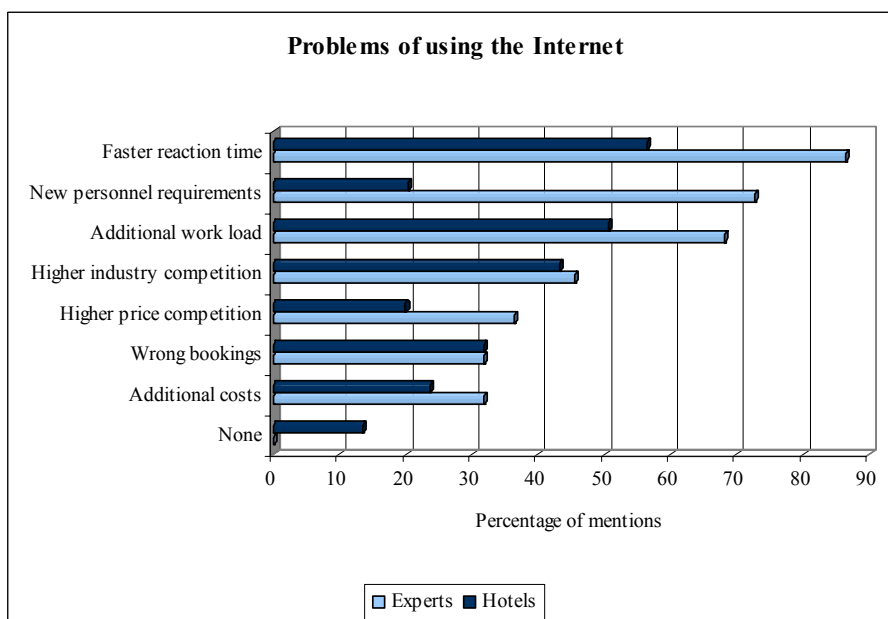

Figure 3: Problems of using the Internet

The three most important problems according to the experts are: faster reaction time, new personnel requirements, and additional workload. All 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. The answers of the hotels were similar, they identify the same problems, except that new personnel requirements are not regarded as such important as stated by the experts.

4.3. Identifying the Opportunities for Hotels Provided by the Internet

To evaluate the opportunities provided by the Internet we used the opportunities identified by Gratzer [4] to propose 9 statements (see Table 2). 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 Fig. 4). The lowest rating is $\bar{x} = 2.8$ for the statements O_9 and O_4.

Table 2: Opportunities of the Internet

O_n	Statements « Opportunities »
O_1	Using the Internet, hotels can use product bundling to provide new offers for their customers.
O_2	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	Using the Internet, hotels can contact their customers directly, intermediaries like travel agents are bypassed.
O_7	Using the Internet hotels can act as new intermediaries.
O_8	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.
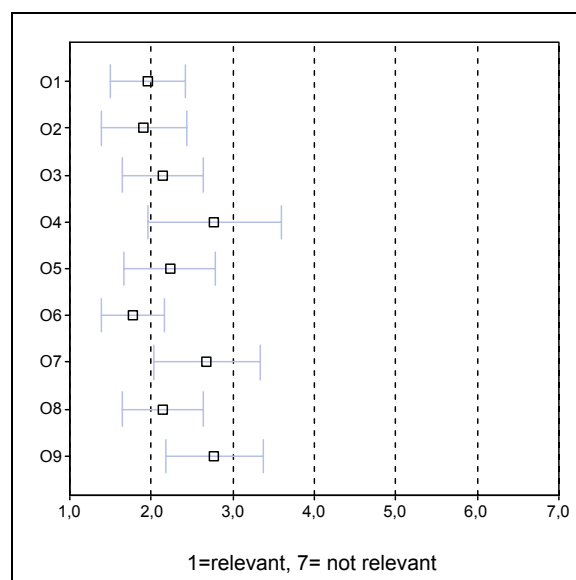
Figure 4: Relevance of the 9 opportunities (95%-CI)

As the most important opportunities the experts identified O_6 ($\bar{x}=1.8$) and O_2 ($\bar{x}=1.9$). O_6 points to 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 less opportunities than the others. O_2 illustrates the chance for hotels to address niche products and the individual customer.

We also included a question where the experts had to choose up to 4 advantages of the Internet for the hotel sector. The same question was evaluated within the hotel survey. As shown in Fig. 5, the two most important advantages identified by the experts are: last minute bookings and lower distribution costs, these can be associated with an increased organizational level of a hotel. Also very important are activities and applications which support the more strategic part of a hotel work. These advantages are: new customers, higher utilization, and direct customer contact. The hotels rated the advantages in a very similar way but put more emphasis on higher utilization and direct customer contact than the experts.
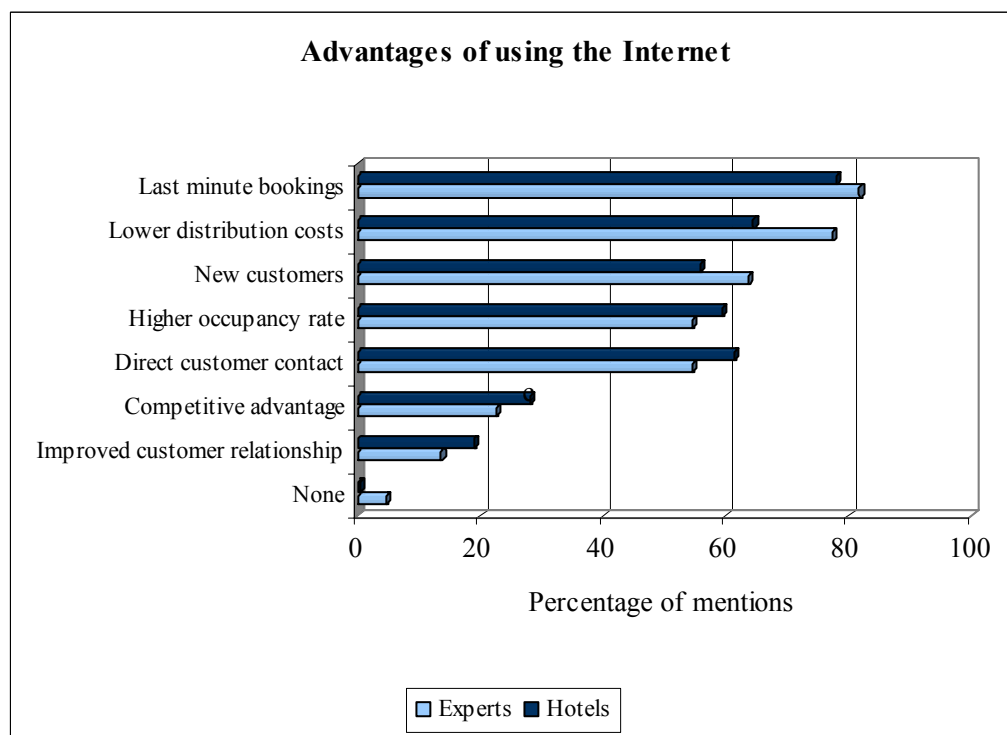

Figure 5: Advantages of using the Internet

4.4. Identifying the Present Use of the Internet

To get a detailed picture of the present use of the Internet from the point of view of the experts we included a question with 12 different applications of the Internet, which hotels can use for their daily business. We asked the experts to identify those services which the hotels already use extensively for their business. There was no limitation of answers. Again, the same question was asked to the hotels within the hotel survey. The results, illustrated in Fig. 6, show that the following services and applications of the Internet are seen as the most important ones: homepage, email, and online reservation. Services like online booking, newsletter, and last minute offers are considered as only partly in use, whereas personalization activities, online surveys, or banner and online promotion are thought of not being used at all. The results of the hotel survey were very similar. Email is the most important service in use, followed by homepages and online reservation facilities.

The largest difference can be found in product development, which is rated nearly twice as important than by the experts.
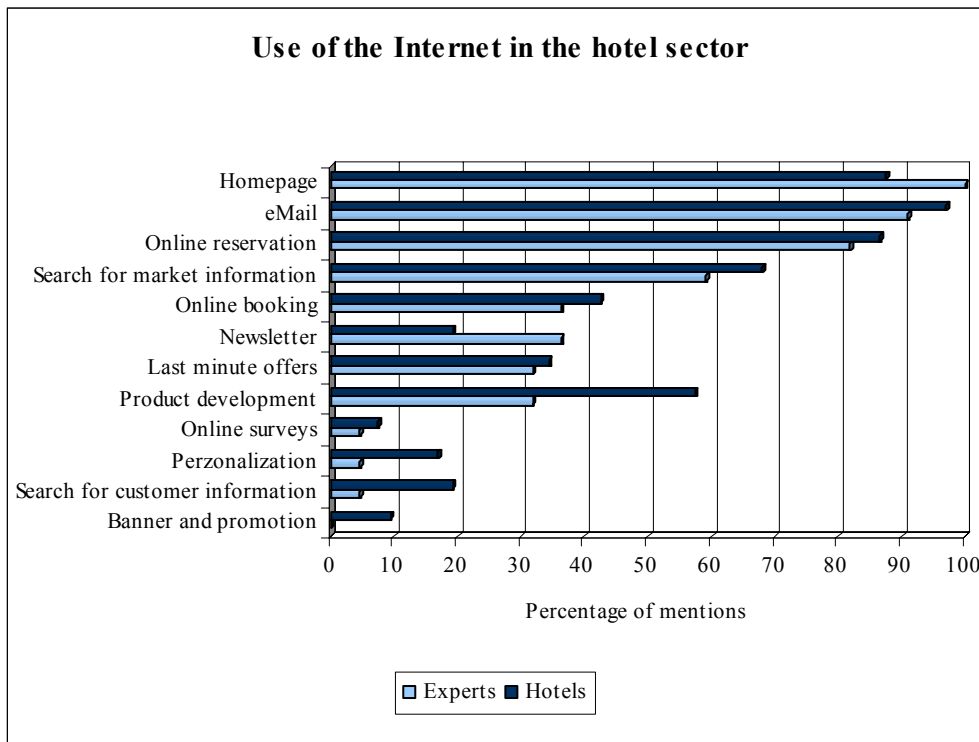

Use of the Internet in the hotel sector

Percentage of mentions

☐ Experts ■ Hotels

Figure 6: The present use of the different services of the Internet

5. Conclusion and Future Work

The purpose of this study is to explain the role of the Internet for hotels and similar accommodation facilities from the point of view of industry experts as well as of representatives from the accommodation industry. 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 which have had no possibility to use distribution channels yet, can use the Internet as an additional and new channel.

Another opportunity can be seen by using the Internet to distribute niche products and address the individual customer. 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. SME hotels 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.

As identified by the experts as well as by the hotels, the most evident problems and threats for the hotels are: the faster reaction time and the additional workload. New personnel requirements are seen as a problem from the point of view of the experts, the hotels themselves are not aware of this problem. In general 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.

However, we identified also related advantages of using the Internet: last minute bookings and lower distribution costs, which are also associated with a more efficient organization of a hotel. These factors are indicated by the experts as well as by the hotels. We see it as an essential success factor for a hotel to create organizational structures, such as defining responsible persons or specific business processes for the introduction of new Internet technologies. The results of the surveys 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 will continue with the evaluation of the hotel survey and focus on the present use of the Internet to identify strengths and weaknesses. This will provide us with a broad picture of the awareness of hotels regarding the use of the Internet for their business activities. Finally, we will postulate possible recommendations for decision makers within this sector in Austria.

References

[1] AKKERMANS, H., Intelligent E-Business: From Technology to Value, IEEE Intelligent Systems 16(4): 8-11, 2001.

[2] BAKOS, Y., The Emerging Role of Electronic Marketplaces on the Internet, Communications of the ACM 41(8): 42-66, 1998.

[3] BUHALIS, D., eTourism: Information Technologies for Strategic Tourism Management. Essex, Pearson Education Limited, 2002.

[4] GRATZER, M. and W. WINIWARTER, A Framework for Competitive Advantage in eTourism. Proc. of the 10th International Conference on Information Technology and Travel & Tourism, Springer-Verlag, 2003.

[5] MURPHY, L. et al, Hotel Management and Marketing on the Internet, Cornell Hotel and Restaurant Administration Quarterly 37(3): 70-82, 1996.

[6] PORTER, M., How Information Gives You Competitive Advantage, Harvard Business Review 63(4): 149-160, 1985.

[7] PORTER, M., Wettbewerbsstrategien (Competitive Strategy), New York, Campus, 1995.

[8] TIMMERS, P., Business Models for Electronic Markets, Electronic Markets 8: 3-8, 1998.

[9] O'CONNOR, P., Evalutaing Electronic Channels of Distribution in the Hotel Sector, Proc. of the 7th International Conference on Information Technology and Travel & Tourism, Springer Verlag, 2001.

[10] WERTHNER, H. and S. KLEIN, Information Technology and Tourism: A Challenging Relation. Vienna, Springer-Verlag, 1999.