

Possibilities for implementation of the decision support system in the Croatian tourism industry

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Abstract – This article elaborates the possibilities for implementing the decision support system (DSS) as an instrument of a qualitative upgrade of Croatian tourism. The theoretical part deals with the present conditions of Croatian tourism, as well as information and knowledge management issues in general, with particular emphasis on tourism. The empirical part presents the research results of Croatian tourist management's attitudes towards information resources, destination information systems and function of information management in the planning tourism development processes, which was carried out by in-depth interviews. On the basis of theoretical explications and the results of empirical research presented in the article the implementation of DSS is suggested, which can efficiently and effectively serve to the improvement of Croatian tourism.

I. INTRODUCTION

Tourism is a strategically important economic sector for the Republic of Croatia. It stimulates economic activity - according to data from the Ministry of Sea, Tourism, Transport and Development – from which results about 20% of the aggregate value of GDP in Croatia [16]. However, the structure of geographical and temporal distribution of tourist traffic points to the fact that there is inadequate use of potential tourist destinations in inland Croatia, and also that utilization of the Croatian capacity for tourism is characterized by markedly seasonality. In 2005 the share of coastal tourist destinations amounted to 87% of the total number of tourist arrivals and 95% in total tourist days; over 95% of the tourist accommodation capacity is located in coastal tourist destinations; in the period July – September more than three quarters of the total number of tourist arrivals, that is, more than 85% of the total tourist days, were to these destinations [14]. Essentially this indicates how successful Croatia is as a tourist destination.

In regard to the fact that tourists are becoming more sophisticated, their expectations from tourist destinations are increasing. Constant improvement of information-communication technology considerably influences the flow of tourists. Tourists are exposed to a mass of information, and tourist destinations must carefully participate in gathering, elaborating, storing and disseminating, i.e. managing, information, because this process should result in adequate messages that will be forwarded to the tourist market.

Only those tourist destinations, that are able to adjust what they offer to the tendencies in demands, i.e. to the sophisticated requests of modern tourists, can expect to be successful. Under such conditions, according to statistical data [23,2,15], Croatian tourism since the year 2000 has continuously shown dynamic growth both quantitatively and qualitatively. This contributes to its recovery and improved positioning on the international tourist market.

The level of development achieved by specific tourist destinations depends on the effectiveness of the tourist policy which is applied. The basic task of a tourist policy, according to Pirjevec [1], is to establish the most favorable relationship between the attraction factors and the possible acceptability overall. Tourist destinations endeavor to survive on the market, and, if market conditions permit – to extend their market share. Accordingly, a priority task for the Croatian tourist policy is to strengthen the competitive position of Croatian tourism.

II. POSSIBILITIES FOR MODERNIZATION OF CROATIAN TOURISM

Bearing in mind the level of development achieved by Croatian tourism, the growing competition and changes in the character of tourist demand, Croatia must adequately make use of its tourist potential. Possibilities for qualitative upgrading, in other words modernization of Croatian tourism are: creating a desirable destination identity and image, adequately making use of natural, historical and cultural heritage, including those of inland Croatia, new investments, fostering infrastructure and the application of modern managerial methods at the level of functioning business subjects within the tourist sector.

Creating an identity and image in tourism first of all is related to the characteristics of the product. When it is positively perceived by a particular group of tourists and potential tourists, then there is an advantage over competing destinations. Making good use of natural, historical and cultural heritage can increase the competitiveness of Croatian tourism. However, Croatia is in danger of losing its comparative advantage over the competition, if the attraction factors are not treated in accordance with the principles of sustainable development. Additional investments have a great significance to Croatian tourism. Raising the quality of traffic communication and special public utilities in tourist places is a prerequisite to be able to make use of developmental

resources through tourism. Management of business organizations should follow modern trends in the development of tourism and know how to respond to market challenges.

Often limited and divided interests result in particular tourist destinations not having a defined strategy with a vision of the shape which tourism is going to take. The effects of tourism are difficult to monitor because of the structural character of the tourist sector. For all that, in perspective, each destination which doesn't plan will not be able to systematically appraise its position on the market. No matter what form of planning of the development of tourism is applied in a particular destination it must strategically identify and use an array of touristic resources.

Successful management of tourism, i.e. planning tourist activities and bringing in regulations related to tourism, demands co-ordination between government bodies, interest groups of the private sector, as well as the engagement of local and regional government and self-government [5].

III. MANAGING INFORMATION AND KNOWLEDGE AS RESOURCES

Information flow, based on modern information-communication technologies, directly influence the functioning of organizations. Organization knowledge is a critical factor in managing and decision making, thus these skills in gathering, elaborating, organizing and disseminating information are very important. Managing information in the organizational context implies creating teams of knowledge, exchanging practical knowledge and experience with personal contacts and a database (between organizational structural units), development of bases of knowledge, creating centers of knowledge for the development of skills in managing knowledge and the improvement of bases of knowledge and information flow. In short, activities in the field of managing information, i.e. knowledge, can be summarized as endeavoring to make real information and real knowledge accessible at the right moment and in the right place [8].

According to Johansen and Gillard [7] knowledge presents more than just a set of information and the task of the manager is to conceptualize the knowledge because of its usefulness in the realization of an organization's strategy. Therefore, information is treated as an element of process that is manifested in the strategy, tactics and functional operation at all levels of an organization. It emphasizes a new approach to managing information that includes managing processes of information dissemination and production knowledge. Wober [10] quotes that the meaning of information and effectively managing the information has increased at the same time as the evolution of new technologies and media for storing data, but because of a growing market whose dynamics stipulate an ever-increasing need for information. Fascination for information-communication technologies led to the fact that we often forget the main purpose of information – to inform people. The fact that information exists doesn't make us better informed.

Changes, that are a consequence of the application of information-communication technologies to almost all fields of human life, require the redefinition of information space. The purpose of the process of managing information in tourism is to develop a message which adequately presents the tourist destination, in other words, in the way in which it wants to be presented. Tourist management must bear in mind that it is possible to transmit any information in the communication process, but not all information - explicit or implicit - results in a decision related to the contents of what is being communicated [18]. Managing information is becoming more important because of the insecurity that growing competition causes, shortening time limits for making decisions and the permanent changes in market conditions.

IV. THE DESTINATION INFORMATION SYSTEM AND THE DECISION SUPPORT SYSTEM

Tourists receive information about tourist destinations from different sources - their own previous experiences, recommendations, tourist guides, advertisements and different publications and video materials about offers for tourists, tourist offices, travel agencies etc. Acquiring information from the above mentioned sources normally implies spending time and a certain part of one's own income, and since this information is very often incomplete, this can affect the level of satisfaction in tourist trips. Tourists look for a maximum of flexibility from tourist destinations in order to satisfy their desires and demands. Interests related to tourist experience assume that tourists have access to information about the destination. Recent research has shown that the accessibility to information influences the choice of destination, the degree of tourist satisfaction, as well as the possibility of a renewed visit. Accordingly, destinations must enable easy access to understandable and timely information about themselves, in order to be competitive on the tourist market.

Destination information systems are based on the application of information technologies. They can be defined as systems that contain complete and relevant information about the destination on offer, in other words the elements of the tourist product that are available to tourists themselves as well as the management of the public and tourist sector, that is to all parties interested in the development of a particular destination. The goal of destination information systems is to provide tourists and potential tourists with the necessary information for planning and organizing their trip. Data from tourists who have already visited the destination, together with more general data about the tourist market, is recorded in databases and is also used for different analyses of the needs of tourists [6].

The destination information system contains information related to the tourist products of a particular destination. It must enable access to the information to multiple users – tourists and potential tourists, the tourist sector, national, regional and local tourist organizations, the public sector and investors. Information that it contains must be accurate, timely and understandable. Its successful application is not only that it improves the effectiveness of

the market but that it serves to promote all those who participate in the providing of information resources to be input in such a system. The implementation of a destination information system presupposes the solution of a number of technical (information inputs, heterogeneity of the data, connection with the global electronic market, architecture of the system etc.) and organizational (especially the interorganizational collaboration) problems and questions. As a rule, the decision to establish and operate such a system is made by the public sector, or its body and/or bodies whose area of business is related to tourism [6].

There are different types of destination information systems and considering their purpose they can be classified in two basic groups: those founded for the purpose of promotion, and those founded to support the decision making process. In the first group are included those systems which serve to promote a particular tourist destination, by offering topics that, with the provision of a system by inputting information resources, in fact promote themselves. The second group includes those systems that provide the management of the public and tourist sector with management information, that is, with business reports.

V. RESEARCH METHODOLOGY

The empirical part of the research was conducted by carrying out in-depth interviews that included a total of 7 questions. The following questions were put to the respondents: (1) What kind of information do you collect about your tourist destination? (2) Have you organized a destination information system? (3) How do you provide the destination information system with input information resources? (4) What is the goal of your destination information system? (5) Who can use the products of your destination information system? (6) Is there a need to introduce a system to support decision making in your tourist destination? (7) Can managing information help in planning the development of tourism?

Seven respondents were questioned by in-depth interview – a representative of the Ministry of Sea, Tourism, Transport and Development, a representative of the Croatian tourist community and five respondents representing tourist communities: the county of Zadar and the cities Poreč, Opatija, Split, and Dubrovnik. The in-depth interviews were conducted in person and by telephone. The interviewing was carried out, and the information received was processed in a period of 15 days – from 1st to 15th September 2006.

VI. MANAGING INFORMATION IN CROATIAN TOURISM

Research into the managing of information in Croatian tourism was conducted by carrying out in-depth interviews. It included questions related to the collection of information and then questions related to destination information systems, and, finally, the function of managing information in the planning of the development of tourism.

In Croatian tourism, the public sector, as a rule collects only information about the actual results of tourist traffic, that is, information that they are obliged to collect because of legislative regulations, and, from all other kinds of data - information about tourist resources and potential, in other words, about tourist offers in general. The other kinds of information are not collected systematically, but when they are needed they are searched for. Very often the information collected is based on estimates and, hence, their completeness and reliability are questionable. There is cooperation between the public and tourist sectors in the field of collecting information. However, there are very often problems in the functioning of so-called interorganizational cooperation.

The destination information system is not organized at a national level. The same is the case with tourist destinations at a regional and local level. Their final usefulness has seldom been investigated in the initial stage, as for example the municipality of Zadar and the city of Poreč. However, the respondents agree that such a national information system should be organized, especially those at the lower levels of necessity, all the more so because our competitors have implemented such systems. One of the respondents observed that, whilst the competition work together to develop a system, Croatian tourism 'suffers' from a mutual distrust between the formers of tourist policy.

Destination information systems provide information of maximal extension and scope about all the relevant elements of a tourist product, especially about the particular contents and forms of the offer. Experts who specialize in information-communication technologies are involved in the provision of information resources.

The goal of destination information systems is to enable tourists to access information about a destination and to increase their level of satisfaction during their stay in a destination.

Destination information systems are mainly intended for tourists. However, they can also be used by others who have different interests related to information about a particular destination.

The respondents consider that it is necessary to introduce a system to support decision making in Croatian tourism.

The respondents consider that managing information can help in the planning of the development of tourism. In fact 'without information' it is not possible to take even one step forward in the development of Croatian tourism.

The results of the in-depth interviews can be summarized in the following way: the current practice of managing information in Croatian tourism does not achieve the purpose in an acceptable way, and that it is necessary to improve it, because it can be useful in the development of tourism in Croatia.

VII. CONCLUSION

The tourist market is saturated with offers. Therefore it is explicitly characterized by the competitive rivalry of tourist destinations. In this context, more than any other factors in their success, that is the possibility of achieving their goals, influence the perception of tourists and

potential tourists of a particular tourist destination and its competition. The organizing of communication can influence tourists' perceptions of tourist destinations. Consequently, one of the more basic questions and problems of modern tourism is to determine what message or messages are to be presented on the market. By managing information, by which is understood the gathering, elaboration, storing and dissemination of information, we can effectively and efficaciously influence the perceptions of the consumers of tourism. Their positive conception of the identity, image and reputation of Croatia as a tourist destination can contribute to a quantitative and qualitative advancement in the growth and development of tourism in Croatia.

In Croatia, information systems created for promotional purposes dominate, and they are built on the Internet infrastructure. The usefulness of these decision systems is limited. The public sector, tourist sector and investors are not able to use them in the process of decision making as the information from such systems is not complete or relevant. Accordingly, for the development of tourism in Croatia, it is necessary to create such destination information systems that, apart from being used for promotional purposes, can also produce correct information, which is accessible at the right time and in the right place, and which can be used as the basis for decision making. Such a system, as well as containing information about elements of the tourist product, also process other types of information which are of interest to Croatian tourism, including information that is related to the problem of safety. In other words, tourism is very sensitive and every sign, even the smallest, of endangered personal security of the tourist, can mean immeasurable consequences for the development of tourism, and even to lead it in the wrong direction.

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