

THE USE OF BUSINESS INTELLIGENCE AS A BASIS FOR A DECISION SUPPORT IN TOURISM

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Information technologies (IT) continue to fundamentally alter the ways of using information in tourism not only from the perspective of consumers of tourism products, but also from the perspective of tourist destinations managers. Generally speaking, the adoption of the IT in tourism organizations (national, regional, local) was very slow, mainly due to their lack of financial resources and know how. This is also the case in Croatia, where most of tourism demand is concentrated in some fifty destinations and even these destinations have not yet been supplied with an effective online system for an easy and quick access to the available data and efficient data processing tools that could satisfy their actual needs.

This paper focuses on the information needs of tourism destination managers and the possibilities to supply them with the necessary information by the Business Intelligence System for Tourism (BIST). The BIST is designed at the Institute for Tourism in Zagreb with an aim to integrate existing databases and to provide web-based tourism information. The data offered by the BIST may be processed, disseminated and graphically displayed online by users with different business objectives.

In the current stage of the system development, the BIST contains data warehouses related to tourist arrivals, overnight stays and accommodation

capacity. This data is generated from the registration done by the accommodation suppliers and is one of the fundamental bases of the official tourism statistics in many countries. In Croatia, data on arrivals and overnights is taken in about 250 tourism destinations (eg. municipalities or report communities) for 43 countries of origin related to 32 different accommodations types. From that data set important information on tourism development, market trends in countries of origin and accommodation types can be derived and destination competitiveness can be easily performed. The BIST allows the destination manager to monitor trends regarding the average length of stay, seasonality, market shares, guest-mix structure and occupancy rate on different levels (local, regional, national).

To facilitate data mining as well as complex analyses and visualization, the data in data warehouses is modeled multidimensionally. The dimensions are defined anticipating a wide variety of user profiles and, therefore, the BIST offers to 'view' data from different aspects:

- territorial organisation (administrative, geographical and according to tourism regions);
- country of origin (by importance, geographical position, membership in particular group of countries)
- time periods (month, year, tourism season)
- types of accommodation and
- organisation of travel.

The Croatian Central Bureau of Statistics provides the source of data as CSV files, which are loaded into Microsoft SQL Server 2000 database for further transformation. The multidimensional cubes are built using Microsoft Analysis Services. Panorama NovaView eBI Platform is used as the front-end for the Analysis Services cubes, enabling web data access by either Java applet or DHTML.

Users access to the BIST by using Internet Explorer. The sign-in process is a fully automated procedure completed when users access the system for the first time. Security is a key priority and is implemented on multiple levels –

operating system, OLAP server and Panorama NovaView. The user interface and the data are presented in Croatian and English.

Data is updated every month and users can search and retrieve information dating back to 2001.

The paper also elaborates the acceptance of the BIST which was launched in 2004. Special workshops are designed and organized on a regular base in order to enlarge the BIST users group and get feedback necessary for system improvements.

Finally, the future development of the system is briefly outlined.