

# The Unexploited Benefits of Travel Planning Functionalities: a Case Study of Automatic Qualitative Market Analysis

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## Abstract

Travel planning services integrated in eTourism web portals comprise user-friendly functionalities that support users in composing their personal itineraries. Travel plans provide an invaluable source of high-quality information about: how website users compose their personalized travel package, how the travel planning process takes place, how the social and travel context influence users' travel needs and preferences. This opens up new opportunities for automatically analysing the user interactions with e-tourism web portals to derive prospected consumer behaviour and market trends, that go beyond the results provided by traditional web site analysis tools, and that are typically available to tourism organizations only through long-term, expensive surveys. A case study of this approach of qualitative market analysis is presented to exemplify the concrete potential provided by travelling planning functionalities as tools to support tourism managers in strategies formulation.

**Keywords:** Travel Planning; User Interaction; Data Mining; Market Analysis.

## 1 Introduction

Many of the most successful eTourism web portals for promoting destinations and tourism products provide a wide set of contents and services (like for example recommender systems and travel planning functionalities) allowing their visitors to acquire rich information on the promoted products, as well as tools and functions which guide users in assembling their personalized vacation (Fesenmaier, Werthner & Wöber, 2006). With these functionalities in place, eTourism web portals can become an invaluable (still underestimated) source of information to understand consumer behaviour (Pitman et al., 2010). With the promise of receiving personalized travel advice, users can explicitly be solicited by the system to provide their general travel constraints (e.g., means of transport, travel companions, ..) and preferences (e.g., interest in culture and museums, preferences for sport activities,..) at early stages during the portal access (Mahmood et al., 2008). A significant amount of additional information comes from the products that consumers choose when freely assembling their personal travel plan and, more generally, from the search queries that they make. This opens up new opportunities for automatically analysing the user interactions with eTourism web portals to derive prospected consumer behaviour and market trends, that go beyond the results provided by traditional web site analysis tools. Indeed, by combining profile information with the actual travel plan choices of a large amount of users it is possible to understand, for example, for different types of user groups: the advance with which travel planning takes place before the actual travel and the favourite periods for holiday planning; preferences about the duration of holidays; features of the various product categories that seem to meet the users' favour; which types of products tend to be grouped together to assemble self-made holiday packages. This information can be extremely informative for Destination Management Organizations and Tourism Operators to understand (and foresee in advance) market trends and to single out factors that may help tune more appealing holiday packages and more effective online marketing campaigns (Dolnicar, 2008), saving the high costs of other field analysis methods. In this paper we discuss the concrete potential provided by travel planning functionalities integrated in DMO portals and in more general eTourism sites, as tools to support tourism managers in strategies formulation. Throughout the paper, the experience gathered in integrating the Trip@dvice recommendation and travel support system (Not and Venturini, 2010) in various DMO portals will be used as a source of evidence and exemplification. Section **Errore. L'origine riferimento non è stata trovata.** describes how meaningful data can be elicited from users or extracted from their personal travel plans and how it can be processed to meet the informational needs of decision-makers in the tourism field. In Section **Errore. L'origine riferimento non è stata trovata.** some preliminary results that have emerged from data processing experiments on real travel plans complement the description. Section **Errore. L'origine riferimento non è stata trovata.** concludes the paper with a discussion of future work and challenges for this approach.