Applying Business Intelligence for Knowledge Generation in Tourism Destinations – A Case Study from Sweden

Matthias Fuchs, Wolfram Höpken and Maria Lexhagen

Prof. Dr. Matthias Fuchs
Mid-Sweden University – Östersund, Sweden
matthias.fuchs@miun.se

Prof. Dr. Wolfgang Höpken
University of Applied Sciences Ravensburg - Weingarten - Ravensburg, Germany
wolfgang.hoepken@hs-weingarten.de

Dr. Maria Lexhagen
Mid-Sweden University - Östersund, Sweden
maria.lexhagen@miun.se

Abstract

The book chapter at hand presents a knowledge infrastructure recently implemented as genuine novelty at the leading Swedish tourism destination, Åre. By applying a Business Intelligence (BI) approach, the Destination Management Information System Åre (DMIS-Åre) drives knowledge creation and application as a precondition for organizational learning at tourism destinations. Schianetz et al.’s (2007) concept of the ‘Learning Tourism Destination’ and the ‘Knowledge Destination Framework’ (Höpken et al. 2011) build the theoretical fundamentals for the technical architecture of the presented BI application. After having briefly discussed the set of indicators measuring destination performance and tourist experience, the book chapter highlights how DMIS-Åre is used to gain new knowledge from customer-based destination processes, like ‘Web-Navigation’, ‘Booking’ and ‘Feedback’. The chapter ends by outlining future research, such as the application of real-time Business Intelligence for gaining knowledge on tourists’ on-site behavior at the destination in real-time.
1 Introduction

Since the advent of the WWW, a major part of tourism transactions is handled electronically (Buhalis 2006; Fuchs et al. 2010a/2010b). Consequently, a huge amount of data on customer transactions as well as customer behavior and perception is stored on various databases at tourism destinations. However, these valuable knowledge sources typically remain unused. Against this background, this chapter demonstrates a knowledge infrastructure which has been prototypically implemented as genuine novelty at the leading Swedish tourism destination, Åre. By applying a Business Intelligence (BI) approach, the presented Destination Management Information system Åre (DMIS-Åre) drives knowledge creation as a precondition for organizational learning at tourism destinations (Pyo et al 2002).

Coles et al. (2006) view tourism destinations as ‘value networks of competencies that coordinate complex social stakeholder constellations and resource configurations to deliver and mediate co-created tourist experiences’. Indeed, tourism can be regarded as a complex social phenomenon where knowledge is the essential basis for development and competitiveness (Jafari 2001). It is, thus, postulated that through the generation and application of knowledge, immanent information asymmetries between destination stakeholders can be significantly reduced (Shaw & Williams 2009). Schianetz et al. (2007) introduced the concept of the ‘Learning Tourism Destination’ thereby acknowledging that organizational, community and individual learning is strongly interlinked. The authors suggest that the learning focus should be on the ‘understanding of how a tourism destination functions, how market possibilities can be enhanced, the requirements for adaptation to changing environments, how to promote collective awareness of economic, social and environmental risks and impacts, and how risks can be minimized and/or countered’ (ibid 2007:1486). Finally, Schianetz et al. (2007) argue, that the implementation of a networked infrastructure that collects customer-based data, disseminates and also applies gained new knowledge, is fundamental to foster learning processes and knowledge exchange between tourism organizations at the destination. Indeed, destination competitiveness is strongly affected by the extent knowledge creation is supported by ICT-based infrastructures and intelligent management information services (Buhalis 2006; Back et al 2007).

2 The Knowledge Destination

The knowledge destination framework, introduced by Höpken et al. (2011), builds the fundament for a Web-based infrastructure that collects customer-based data, and creates as well as disseminates new knowledge among destination stakeholders. We argue that knowledge creation and acquisition processes at