Destination Management Systems: Improving the tourism experience by empowering visitors

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As most research conducted on DMSs suggests (Pollock, 1995; Buhalis, 2003), these information systems are difficult to define. The diversity of DMSs and corresponding functionalities make it difficult to establish a universal definition that can fit the remarkable range of existing DMS solutions. However, there is a relative consensus that they are one of the most modern ICT applications supporting tourism destinations.

According to most researches on E-Tourism, the specific features of DMSs should be created taking into consideration the destination's characteristics and configuration, namely the cohesion levels among suppliers, the capacity of local DMOs to act as the leading entities, the diversity of tourism experiences available or even the level of E-readiness of destination's attractions and businesses (Ndou and Petti, 2007; Alford and Clarke, 2009).

The lack of a universal conceptualization of DMSs that could narrow their scope has been perhaps helpful in the development and broadening of DMSs' contents and functionalities, thus enlarging their scope and improving their performance and competitiveness.

Evidence shows that, when successfully implemented, DMSs were one of the most innovative and efficient tools used by destinations to promote, attract and sell broad tailor-made tourism experiences to a more sophisticated demand. DMSs' efficiency in attracting tourists can be partially explained by the rich media they incorporate and by offering tourists a reliable, official one-stop-only destination portal that allows them to make the whole array of arrangements inherent to travel and tourism (Buhalis, 2003; Egger and Buhalis, 2008).

Additionally, by conveying a homogeneous and shared image of the entire destination, usually under the auspices of public DMOs, DMSs have also been considered a valuable tool in creating and maintaining a competitive destination branding (WTO, 2004; Wei and Jiu-wei, 2009)

However, although DMSs are intrinsically innovative due to both their technological prerequisites and to the cohesion among destination's components that they require, it is pertinent to ask how these broad and complex networks, usually partially owned and managed by public entities and operated by actors with considerable distinct levels of E-readiness, have been giving visitors a more active role in building their experiences, namely by applying some of the newest methodologies in the area of tourism marketing, such as the Web 2.0, which has been extensively used by private online intermediaries ("infomediaries").

Firstly, **this paper aims** at building a broad framework of the types of functionalities that most DMSs implement in their consumer-facing websites (C2B relationship). Since amongst official destination portals DMSs have been pioneers in providing tourists online travel planning and reservation mechanisms, the second and major goal of this paper is to evaluate how advanced DMSs are enabling visitors to play a more active role in building their experiences. In this context, this paper intends to analyze, for instance, whether DMSs are *giving voice* to past visitors through the implementation of relatively new functionalities such as web 2.0, assisting future visitors making their choices.

The **main question** underlying this research is: Although being widely considered modern and efficient tools in promoting destinations and commercializing their offerings, are DMS empowering visitors in improving their own experiences, namely by integrating the latest and more innovative functionalities used in today's E-Business, such as web 2.0?

As to the pursued **research strategy**, it will focus on the literature review of reference studies in the field of DMSs, namely of their contents, functionalities and utility. The primary goal of this methodology is to identify DMSs' functionalities that may allow DMSs to develop feedback mechanisms that enable the perceptions of past visitors to be integrated in the core of DMSs' contents. This literature review will be followed by a content analysis of selected DMSs that will focus on exploring and evaluating the existence and features of the above mentioned types of functionalities, namely those concerning web 2.0.

Concerning the relevance of the proposed theme, although there are many studies analyzing DMO's promotional websites, only a few of them are focused on the evaluation of the architecture of DMS, with some exceptions such as the research undertaken by Teichmann and Zins (2008). Furthermore, most of the research conducted in the area of DMSs focuses on destination-based stakeholders rather than on the demand and on the more dynamic role it tends to have in most areas of E-Tourism. It also seems relevant to critically analyze the rapid/slow adoption of new philosophies and trends in E-tourism while, at the same time, evaluating the participation and relevance of tourists' perceptions (C2C and C2B relationships) in the front-end of official destination websites.

Regarding the paper's **main analytical methods**, following and deriving from the above mentioned literature review, an observation and evaluation grid of DMSs' functionalities that can enable further and deeper interactions with past and future visitors will be proposed. The

empirical analysis of selected DMSs carried out in order to evaluate consumer participation mechanisms will be based on the referred grid and will culminate in a qualitative analysis of the obtained results.

This paper will test the thesis that DMSs' role in promoting the active participation of visitors focuses in the planning and purchasing of tourism experiences rather than on permitting them to give feedback on past experiences, assisting DMOs suppliers and future consumers. Hence, DMSs tend to have an immediate commercially-oriented perspective of the demand, not taking into account the role of consumer feedback mechanisms in promoting the sustainable development of destinations.

One of the **main results** expected from this paper is that the majority of DMSs are not taking advantage of functionalities, namely web 2.0, that maximize interaction between destinations and the demand and, also, among several visitors. It is also expected to identify several ways through which DMSs may improve this interaction. Some of the **main recommendations** deriving from this paper's expected results are the need for DMSs' managers to adopt philosophies, tools and mechanisms that follow the new trends in terms of tourism marketing, namely those that enable visitors to become active stakeholders in terms of the evaluation of the destinations' offered experiences.

Keywords: Destination Management Systems; information systems; tourism destination; Internet; demand feedback functionalities; website evaluation.

Bibliography

Alford, P.; Clarke, S. (2009). *Information Technology and Tourism: A Theoretical Critique*. Technovation (2009), doi:10.1016/j.technovation.2009.05.006.

Baggio, R. (2008). The Province of Rimini: Communicating with the Customer. In: Egger, R.; Buhalis, D. eTourism – Case Studies. Ed. Butterworth Heinemann, Oxford.

Bédard, F.; Louillet, M.C. (2008). BonjourQuebec.com: A Vision, a Strategy, a Brand. In: Egger, R.; Buhalis, D. *eTourism – Case Studies*. Ed. Butterworth Heinemann, Oxford.

Buhalis, D. (1998). Strategic Use of Information Technologies in the Tourism Industry. *Annals of Tourism Research*, 19 (5), 409-421.

Buhalis, D. (2000). Marketing the Competitive Destination of the Future. *Tourism Management*, 21, 97-116.

Buhalis, D. (2003). eTourism: Information Technologies for Strategic Tourism Management. Pearson Higher Education, Harlow.

Buhalis, D.; Schertler, W. (1999). Information and Communication Technologies in Tourism, ENTER'99 Conference Proceedings, Innsbruck, Springer-Verlag, Wien-New York.

Buhalis, D.; Spada, A. (2000). DMS: Criteria for Success – An Exploratory Research. *Information Technology and Tourism*, 3 (1), 41-58.

Buhalis, D.; Tjoa, A.M.; Jafari, J. (1998). Information and Communication Technologies in Tourism, Springer, New York.

Cooper, C. (2005). Knowledge Management and Tourism. *Annals of Tourism Research*, Vol. 33 (1), 47-64.

Dwyer, L.; Edwards, D.; Mistilis, N.; Roman, C.; Scott, N. (2009). Destination and Enterprise Management for a Tourism Future. *Tourism Management*, 30, 63-74.

Egger, R.; Buhalis, D. eTourism - Case Studies. Butterworth Heinemann, Oxford.

Frew, A.J.; Horan, P. (2007). Destination website effectiveness: a delphi study-based eMetric approach. *HITA Conference*, Orlando, USA: pp. 49-80.

Guthrie, C. (2008). Visitbritain: Satisfying the Online Market Dynamics. In: Egger, R.; Buhalis, D. *eTourism – Case Studies*. Butterworth Heinemann, Oxford.

Kotler, P.; Bowen, J; Makens, J. (2003). *Marketing for Hospitality and Tourism – Third Edition*. Pearson Education, New Jersey.

Miralbell, O.; Martell, E.; Viu, M. (2008). Spain.info: Towards Stakeholder Network. In: Egger, R.; Buhalis, D. *eTourism – Case Studies*. Butterworth Heinemann, Oxford.

Ndou, V.; Petti, C. (2007). DMS Business Models Design ans Destination Configurations: Choice and Implementation Issues. *Information Technology & Tourism*, Vol. 9, 3-14.

OMT - Organização Mundial de Turismo (2003). *E-Business para Turismo – Guia Prático para Destinos e Empresas Turísticas*, Bookman, Porto Alegre.

Pollock, A. (1995). The Impact of Information Technology on Destination Marketing. *EU Travel and Tourism Analyst*, 3, 66-83.

Poon, A. (1994). The "New Tourism" Revolution. Journal of Travel Research, 33(2).

Ritchie, J.R.B.; Crouch, G.I. (2003). The Competitive Destination: A Sustainable Tourism Perspective. Oxon, UK: CABI.

Ritchie, R.J.B.; Ritchie, J.R.B. (2002). A Framework for an Industry Supported Destination Marketing Information System. *Tourism Management*, 23, 439-454.

Schröcksnadel, M. (2008). Feratel Media Technologies: Providing DMS Technology. In: Egger, R.; Buhalis, D. eTourism – Case Studies. Butterworth Heinemann, Oxford.

Sigala, M.; Marinidis, D. (2010). DMOs, e-Democracy and Collaborative Destination Management: an Implementation Framework. *Information and Communication Technologies in Tourism 2010. Proceedings of the International Conference in Lugano, Switzerland.*

Sussman, S.; Baker, M. (1996). Responding to the electronic marketplace: Lessons from Destination Management Systems. *International Journal of Hospitality Management*, 15 (2), 99-112.

Teichmann, K.; Zins, A. H. (2008). Information Elements on DMO-Websites: Alternative Approaches for Measuring Perceived Utility. *Proceedings of the International Conference of Information and Communication Technologies in Tourism 2008, Vienna, Austria.*

The European E-Business Market Watch. (2006) ICT and Electronic Business in the Tourism Industry. ICT Adoption and e-Business Activity in 2006. European Commission, Brussels.

The European E-Business Market Watch. (2005) ICT and Electronic Business in the Tourism Industry. ICT Adoption and e-Business Activity in 2005. European Commission, Brussels.

Wei, Z.; Jiu-wei, W. (2009) A Study on the Information Integrated Mechanism of Tourist Destination Marketing System. *Proceedings of the E-Business and Information System Security*, 2009 (EBISS '09), Wuhan, China.

Wöbber, K.W. (2003). Information Supply in Tourism Management by Marketing Decision Support Systems. *Tourism Management*, 24, 241-255.

World Tourism Organization (2004). Survey of Destination Management Organization Report. WTO, Madrid.