

MANAGING TECHNOLOGICAL CHANGE IN INTERNATIONAL TOURISM BUSINESS

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ABSTRACT

Recent advances in technologies adjust the traditional business model in tourism, and it is expected to create new ones. The question is if companies could understand the benefit from becoming even more innovative and creative when it comes to their „smart” business strategies, in order to fully differentiate these efforts from traditional business operations. Even more, many of the traditional consumers, in the new context of ICTs development, have changed their buying habits and the consumption behaviour. They act different now, they changed the way of interacting with the others and with the business suppliers, and they also became more interested in taking part at the creation process. But are these the essential characteristics of the next generation tourists?

Going further, the infrastructure of the organization determines the readiness to respond to customer requirements. The new trends affect not only the shape of the offer, but also the design of the demand. As a consequence, customer relationship management and other fundamental information management systems are essential for businesses to scale-up.

In that respect, the discussions on this topics will enable an overview of the present status of the field and also it aims extending the methodological insights regarding the appropriate approaches and responses of tourism suppliers to the new technological changes.

Keywords: tourism, technology, digital tourists, ICT, smart business, change

1. INTRODUCTION

Nowadays, the information and communication technology (ICT) has become a critical tool for the tourism industry development. Technology not only mediates the access to destinations and improves the quality of experiences, but is the one who allows the participation of consumers to the creation process. In that respect the experiences are transforming, as consumers are now more experienced, sophisticated and play an active part in co-creating their own experiences. (Neuhofer, Buhalis & Ladkin, 2013). As customers gradually prefer to go their own way, the relationship between customers and companies is changing in favour of customers who are increasingly gaining power and control.

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Therefore, the progress of the science, the use of devices with multimedia features and the digital/mobile marketing campaigns has generated a new set of tools for tourists' experiences.

But, are the managers prepared to make the distinction and to treat separately, but excellently, as well, the traditional tourists and the digital tourists? Are they able to keep up the pace with the new technological developments? How do the suppliers manage technological change in order to offer great experiences?

This paper provides a theoretical review of the influences of ICT in tourism activities and presents findings in terms of tourism suppliers' readiness for technological changes.

2. THEORETICAL FRAMEWORK

The widespread use of handheld devices, which are becoming increasingly powerful and flexible, and the development of a fast mobile communication networks offer a new way of accessing information anytime and anywhere, thus changing the habits of mobile users. (Ballard, 2007). In today's scenario, the smartphones and applications can translate words live on screen, give real-time transportation advice, locate somebody anywhere in the world, act as a boarding pass, book the dinner reservation, and even help finding a cheap, last-minute hotel room. Nowadays, it is more relevant to provide a dynamic view of the locations, like ranking of hotels or places, feedback on a point of interest etc. It is also expected that these applications should be integrated with popular social networks so that consumers can see the feedback from the people in real time. (Radha M De, 2012). It is clear that invisible, attentive and adaptive technologies that provide tourists with relevant services and information anytime and anywhere represent the future. The new display paradigm, stemming from the synergy of new mobile devices, context-awareness and Augmented Reality (AR), has the potential to enhance tourists' experiences and make them exceptional (Yovcheva, Buhalis & Gatzidis, 2013).

On the other hand, the recent research regarding the use of technology in tourism outlines that the online shared videos can provide mental pleasure to viewers by stimulating fantasies and daydreams, as well as bringing back past travel memories. (Tussyadiah & Fesenmaier, 2008). But, the tourism information on the Internet is spreading not only through the official websites. There are many of unofficial channels such as blogs, wiki, social networks, to also offer destination information (Inversini & Buhalis, 2009). The destination managers are investing considerable efforts (time and money) in order to market their destination online without considering that unofficial information competitors are gaining more and more popularity among internet users (Inversini, Marchiori, Dedekind & Cantoni, 2010). The destinations need to manage their brand and online reputation holistically by attempting to coordinate the players offering information about themselves and also amalgamating the entire range of information and service providers on platforms of experience creation (Inversini, Cantoni, Buhalis, 2010).

Social media are gaining prominence as an element of destination marketing organisation (DMO) marketing strategy at a time when public sector cuts in their funding are requiring them to seek greater value in the way marketing budgets are spent. Social media offers DMOs with a tool to reach a global audience with limited resources (Haysa, Page &

Buhalis, 2012). Findings reveal that social media are predominantly used after holidays for experience sharing. It is also shown in the recent research that there is a strong correlation between level of influence from social media and changes made to holiday plans. Moreover, it is revealed that user-generated content is more trusted than official tourism websites, travel agents, and mass media advertising (Fotis, Buhalis & Rossides, 2011). But the literature clearly demonstrates how tourism organizations should exploit the inbound and outbound communication, networking, and collaboration capabilities of social media for including several other stakeholders into their management strategies and activities. The practical and research implications of social media in crisis management for tourism policy makers, tourism suppliers, and researchers is essential nowadays (Sigala, 2011).

However, the Information & Communication Technology is subject to social transformation, since it is used in airlines, hotels, travel agencies, tour operators and destination management organizations, as an important support of interplay with digital travellers. Therefore, the co-creation process is based not only on the interaction between the tourists and the suppliers, but on the new network formed because of the interaction between the tourists and facilitated by the technology.

The impact of technology is tremendous in the transport sector. The recent research published by SITA³ shows the way technology is shaping the future of air travel. They consider that airline IT investment priorities continue to focus on mobilizing the passenger journey, as they have done for the past years, but airlines are also showing a strong interest in improving business intelligence to better understand their operations and customers. More than that, the airline industry is an industry that is fast adopting the digital world. In order to improve the formalities and procedures, some airports adopted new trends and installed smart gates for customer, which are secure, automated self-service alternatives to the conventional face-to-face border control process. The devices identify users through their passports, ID cards or e-Gate cards, and also use facial and eye recognition technology to verify the user.

The advent of digital media technology and the emergence of Internet-based content are raising the bar in terms of what consumers expect from in-room hotel technology. The latest technology gives hotels an opportunity to provide new products and services to guests, but it also bring challenges. Using a single remote for all the features in the room, turning the guest's smartphone into the remote control for the television or providing the hotel rooms with iPads, loaded with *virtual concierge application*, are services adopted by smart hotels, but in the near future, it will be available at many other hotels.

Regarding the tourism firms, the role of Information & Communication Technologies (ICTs) in increasing their performance, but also of the tourism destinations at a macro-economic level, is widely advocated (Wang & Fesenmaier, 2003).

But the impact of Information & Communication Technologies is essential in case of destinations as well. The studies reveal the opportunities for tourism destination marketing organizations to communicate successfully their attractions and offerings through user

³ The Airline IT Trends Survey, SITA 2013, <http://www.sita.aero/surveys-reports/industry-surveys-reports/airline-it-trends-survey-2013>.

generated blog content (Volo, 2010). More than that, it is known that the totality of the ICTs developed by Destination Marketing Organisations (DMO) for marketing their destinations represents the Destination Management System (DMS). Today's world has thousands of destinations that have a DMS, the function of which is to oversee the entire offer of the local or regional destinations situated on their territory, to carry out promotion for these, and to serve as a distribution channel of bookable tourism products (Bédard & Biegala, 2010). The major role of DMS is to act as an electronic intermediary providing functionalities related to e-distribution, e-marketing and e-sales for the whole destination and its tourism suppliers. As investment in and the adoption of ICTs are now an indispensable component of tourism and hospitality business, researchers increasingly seek to understand and communicate the significance of the new technologies, investigate and interpret developments in e-tourism, and attempt to forecast the way ahead for both industry and technological development (Sigala, 2011).

The industry leaders considered that the new Web era was imminent and heralded benefits for supply and demand side interoperability, although management and technical challenges could impede progress and delay realisation (Mistilis & Buhalis, 2012). Websites and the mobile applications need to be evaluated from a usability perspective for improving their quality for the end users (Triacca, Inversini & Bolchini, 2005). The main reason for the continuous and rigorous upgrade is because the studies regarding the effect of the design factors of destination Web sites on first impression formation indicate that the virtual users were able to make quick judgments on tourism Web sites and that inspiration and usability were the primary drivers evoking a favourable first impression. But the volume of good information and the credibility of the destination web page are also important arguments for tourists to create a positive first impression (Kim & Fesenmaier, 2008).

And, not at least, agile competition and fast development of information and communication technologies have the capacity to modify the traditional time-space interaction and form different modern organizational structures of business systems – the virtual organizations. Closer collaboration and the utilization of ICTs would enable tourism business system actors to expand their supply and to enhance their competitiveness (Hopeniene, Railiene & Kazlauskienė, 2009).

3. METHODOLOGY

The research methodology included: a) a textual analysis using the methodological resources of conceptual clusters and the links between them: IT- business – tourist experiences (Fig.1), b) a survey regarding the readiness of tourism suppliers for technological challenges, and b) synthetic parts.

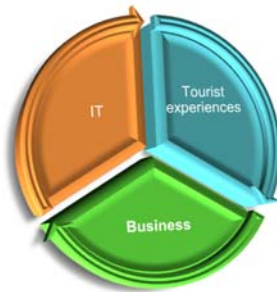


Fig. 1. The key conceptual clusters of digital tourism

The first part consisted of the study and analysis of key texts of consumer behaviour in the new digital context and the discussion on emergence of new business models in tourism. The survey was conducted among 100 companies acting in tourism area and its main objective was to establish the level of using the new technology in their business operations or in relation with consumers. The direct quantitative research aimed at recording responses to questions from a questionnaire and implied the following steps: setting the goal and objective of the research, defining the group, determining the poll unit, calculating the sample size, choosing the sampling mechanism, conducting the research (information collection, data processing, analysis and interpretation), developing conclusions.

The constructive part of the methodology consisted in synthesizing the results to conclude on possible new interpretations of the key conceptual clusters with the aim to identify and discuss conceptual innovations regarding the new business models in tourism determined by the adoption of new technologies, and the new structures and strategies for tourism suppliers based on digital tourists experiences; set up new knowledge to prepare the tourism suppliers for the smart tourists.

4. RESULTS

The analysis of key texts on consumer behaviour in the context of the development of information and communication technology followed the methodological approach central to conceptual attitudes and behaviours via smart/digital tourist experiences, which is an explicit novelty for the present-day controversies regarding the traditional/digital tourist behaviour.

Regarding the survey results, some conclusions may be drawn, as follows:

- Because of the new mobile technology, it seems that the passive role of the tourists was replaced by an active one and the tourists became more experienced, sophisticated and eager to be involved in the creation process;
- The new global technological environment determined a shift in consumers behaviour, and, the new profile of the modern tourist determined another approach of business in terms of organization, marketing, connection with consumers;

- Many of the tourism suppliers are aware of the benefits of adopting the new technologies, but not all of them are able to keep the pace with the rhythm of technology development;
- The new, adjusted type of business requires a workforce endowed with more specific skills;
- Some of them consider that WoM (word of mouth) and traditional marketing tools are more effective than the mobile or electronic information channels.

5. CONCLUSIONS

The research results have the potential of opening new areas of scientific investigation and explore potentially new paradigms in the field of business science and administration in tourism.

The future research will therefore focus its attention on:

- change of roles; shift in gravity center (the consumer becomes active part of creating touristic packages) “Prosumer” (= professional, informed, expert consumer);
- consumers co-create virtual communities, where the feedback given by consumers co-creates the touristic experience;
- marketing and Human resources strategies are directly influenced by smart technologies;
- shift from physical business to online business and perhaps mobile business (can online business strategies be adapted or adopted by tourism industry? Can we speak in tourism of “mobile business models” the same way we speak of “online business”? Paradigm shift?);
- how companies could understand the benefit from becoming even more innovative and creative when it comes to their „smart” business strategies, in order to fully differentiate these efforts from traditional business operations.

The notion of creating experiences has become ultimate for successful business operations, structures and strategies. Considering that the performance of businesses heavily relies on minimising the imitation of tourism products and services and on maximising the creation of valuable experiences, it is crucial for business suppliers to gain an in-depth understanding of the paradigm shifts changing the conditions they are operating in. To that end, the research set out to conceptualise technology as a tool for the next generation tourism (industry).

6. REFERENCES:

- 1) Bédard F. & Biegala T., Consumer Behaviour and Consumer Profile in the Use of Portal Destination Management Systems (DMS), Conference ENTER, Switzerland, 2010;
- 2) Bourgouin F., Information communication technologies and the potential for rural tourism SMME development: the case of the Wild Coast, Development Southern Africa Vol 19, No 1, March 2002;
- 3) Fotis J., Buhalis D. & Rossides N., Social media impact on holiday travel planning: the case of the Russian and the FSU markets. International Journal of Online Marketing 1(4): 1–19, 2011;

- 4) Hays S., Page S.J. & Buhalis D., Social media as a destination marketing tool: its use by national tourism organisations. *Current Issues in Tourism* 16(3): 211–239, 2012;
- 5) Hopeniene R., Railiene G. & Kazlauskienė E., Potential of virtual organizing of tourism business system actors, *Engineering economics = Inžinerinė ekonomika*. 3(63), 75-85, 2009;
- 6) Inversini A. & Buhalis D., Information Convergence in the Long Tail. The Case of Tourism Destination Information. In W. Hopken, U. Gretzel & R. Law (Eds.), *Information and Communication Technologies in Tourism 2009 – Proceedings of the International Conference in Amsterdam, Netherland* (pp. 381-392). Wien: Springer, 2009;
- 7) Inversini A., Cantoni L. & Buhalis D., Destinations information competitors and Web reputation. *Information Technology and Tourism* 11: 221–234, 2010;
- 8) Inversini A., Marchiori E., Dedekind C. & Cantoni L., Applying a Conceptual Framework to Analyze Web Reputation of Tourism Destinations. In U. Gretzel, R. Law, & M. Fuchs (Eds.), *Information and Communication Technologies in Tourism 2010 – Proceedings of the International Conference in Lugano, Switzerland* (pp. 321-332). Wien: Springer, 2010;
- 9) Kim H. & Fesenmaier D.R., Persuasive Design of Destination Web Sites: An Analysis of First Impression, *Journal of Travel Research OnlineFirst*, published on January 14, 2008;
- 10) Mistilis, N., & Buhalis, D., Challenges and potential of the Semantic Web for tourism, *e-Review of Tourism Research (eRTR)*, Vol. 10, No. 2, 2012;
- 11) Morosan C. & Fesenmaier D.R., A conceptual framework of persuasive architecture of tourism websites: Propositions and implications. *Proceedings, Fourteenth International Conference on Information and Communication Technology in Tourism*, Ljubljana, Slovenia, 2007, pp. 243 – 254;
- 12) Neuhofer B., Buhalis D. & Ladkin A., A Typology of Technology-Enhanced Tourism Experiences, *International Journal of Tourism Research*, Int. J. Tourism Res., Published online in Wiley Online Library (wileyonlinelibrary.com) DOI: 10.1002/jtr.1958, 2013;
- 13) Radha M De, Mobile Tourism Planning, *Academy of Technology, ATN Volume 3, Number 5*, 2012;
- 14) Sigala M., Social Media and Crisis Management in Tourism: Applications and Implications for Research, *Information Technology & Tourism*, ISSN 1098-3058, Volume 13, Number 4, 2011 , pp. 269-283(15);
- 15) Spencer A., Buhalis D. & Moital D., Staged technology adoption for small ownermanaged travel firms: An organizational decision-making and leadership perspective. *Tourism Management*, 2011;
- 16) Triacca L., Inversini A. & Bolchini D., Evaluating Web Usability with MiLE+, *Website Evolution IEEE Symposium*, Budapest: Hungary, 2005;
- 17) Tussyadiah I.P. & Fesenmaier D.R., Mediating Tourist Experiences. Access to Places via Shared Videos, *Annals of Tourism Research*, Vol. 36, No. 1, pp. 24–40, 2008;
- 18) Yovcheva Z., Buhalis D. & Gatzidis C., Engineering augmented tourism experiences. In Cantoni L, Xiang Z (eds). *Information and Communication Technologies in Tourism 2012*. Springer Verlag: Austria; 24–35;
- 19) Volo S., Bloggers' Reported Tourist Experiences: Their Utility as a Tourism Data Source and Their Effect on Prospective Tourists, *Journal of Vacation Marketing* 16 (4), 297-311, 2010;
- 20) Wang Y. & Fesenmaier D.R., Understanding the Motivation to Contribute to Online Communities: An Empirical Study of an Online Travel Community, *Electronic Markets*, 13(1): pp. 33 – 45, 2003;
- 21) Wang Y., Hwang Y.H. & Fesenmaier D.R., Futuring Internet Marketing Activities Using Change Propensity Analysis, *Journal of Travel Research*, 45: 158-166, November 2006;
- 22) ****Air Transport Industry Insights, The Airline It Trends Survey, Sita 2012;
- 23) ****Air Transport Industry Insights, The Airport It Trends Survey, Sita 2013.