# Complexity in the tourism and hospitality online purchasing process

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### **Abstract**

This chapter examines the complexity of attributes affecting the online purchasing process in tourism and hospitality. Eight elements (i.e. marketing activities, perceived benefits, perceived risks, over-choice confusion, price issues, quality issues, consumer trust and intention to purchase) are identified as of principal importance. Based on a sample of 735 holidaymakers, the empirical findings stress the role of perceived benefits in e-marketing activities; the significance of perceived risks for price and quality issues; and the importance of over-choice confusion to e-shopping. The research employs Qualitative Comparative Analysis (QCA), an innovative technique in tourism. QCA results are compared to regression highlighting the possible superiority of this non-linear mixed method against correlational analysis. The chapter progresses from fit to predictive validity, something that only a handful of studies have employed in tourism and hospitality, and generally in the service sector. It also discusses several theoretical, methodological and managerial implications, whilst it contributes in both, theoretical and methodological domains.

# **Keywords:**

Online tourism shopping; chaos and complexity; benefits and risks; overchoice confusion; price and quality; e-consumer trust

## Introduction

Information Technology has heavily impacted tourism and hospitality and the way travellers acquire and use relevant information (Xiang et al., 2015). Over 10% of Internet searches are related to travel (Jansen et al., 2008; Pappas, 2017), while 60% of people 15 years old or older tend to use the Web to search tourism and hospitality information and purchase relevant products (No & Kim, 2015). Not surprisingly, therefore, tourism and hospitality oriented web-vendors have become very active, significantly influencing the access of travellers to tourism and hospitality products and services (Xiang et al., 2008).

Hyun (2006) classifies tourist and hospitality information websites into portals, travel agencies, public institutions, online communities, and others. Based on the provision of information, Pan and Fesenmaier (2000) have divided tourism and hospitality related e-vendors into travel and tourism websites. From a consumer's point of view, the beneficial impact of Internet shopping predominantly relates to time and place convenience; value enhancement thanks to effective price comparison; and hedonic consumption arising from the very purchasing experience (Sigala, 2004). On the other hand, a number of Internet use caveats have been identified such as privacy and security concerns (Evans & Mathur, 2005); online versus offline risks (Hong & Yi, 2012); price and quality issues (Pappas, 2017); and over-choice confusion (Bjork & Kauppinen-Raisanen, 2012). Still, research on the complexity of online tourism and hospitality purchasing decisions and behaviour is rather limited. This is surprising given the role of technology in shaping consumer behaviour in advanced modern societies (Chai, 2012).

From a methodological point of view, most business-oriented and almost all tourism and hospitality studies evaluate statistical relationships based on symmetric analysis as encapsulated by structural equation modelling (SEM) and regression. These linear methods adopt a net effect estimation approach but ignore the complexities that exist in reality and are apparent in academic datasets (Woodside, 2014). This is because when multicollinearity is high, estimates may prove statistically insignificant; alternatively, estimates can prove inconsistent with the set hypotheses since the estimated regression function is of poor predictive power (Van der Meer et al., 2005). Conversely, in cases of low multi-collinearity the

marginal contribution of one explanatory variable may end up depending on the other explanatory variables included in the estimated function albeit in a non-linear manner (Woodside, 2013). In fact, the standard assumption in regression analysis is that the addition of new variables increases (at least the adjusted) goodness-to-fit (Armstrong, 2012); nonetheless, the usual co-variance predictors in non-experimental studies do not provide any related supportive evidence (Skarmeas et al., 2014).

This chapter focuses on website vendors in tourism and hospitality, whilst its full linear analysis is presented in Pappas (2017). It synthesises previous research (i.e. what we know) on the main elements (variables) affecting tourism online purchasing intentions in terms of marketing activities (Chikweche & Fletcher, 2010); perceived benefits (Kim et al., 2008); risks (Hong & Yi, 2012) and confusion by over-choice (Tarnanidis et al., Omar, 2015); price (Tarnanidis et al., 2015) and quality issues (Ahn, Ryu, and Han, 2004); consumer trust (Gefen et al., 2003); and intention to purchase (Kim et al., 2008). Most importantly, however, it progresses from the parametric analysis illustrated in Pappas (2017) to a non-linear evaluation of the examined aspects, as it steps beyond a simple synthesis to discuss what we do not know very well, i.e. how complexity affects the attributes of tourism and hospitality online purchasing intentions. Given the sheer scale of online bookings and the inherent risks associated with Internet use, understanding and evaluating consumer behaviour through the theoretical lens of complexity is a relatively uncharted territory worth exploring further. To do so, the paper implements Qualitative Comparative Analysis (QCA), which is relatively new in tourism and hospitality research, while only a few studies have generally employed it in the service sector (Papatheodorou & Pappas, 2017). On these grounds, the contribution of the study is both theoretical and methodological. Concerning literature, it provides a better understanding and possible explanation of online tourism and hospitality decisions based on complexity theory. Further to the study of Pappas (2017), it suggests multiple pathways leading to the same outcome, instead of solely based on only one. As a result, it also provides a series of managerial implications addressing the complexity of online tourism behaviour. In terms of methodology, it applies an innovative asymmetric analysis technique whose possible superiority and suitability for tourism research is assessed by directly comparing its results with dominant linear (i.e.