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Research Paper

Destinations and crisis. Profiling tourists' budget share from 2006 to 2012

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ABSTRACT

Tourist spending behavior is not only relevant in terms of volume but also in terms of trip budget composition or allocation (share or proportion of total trip budget allocated to transportation, accommodation or activities). This paper aims to profile expenditure patterns before, during and after the economic crisis, and how they affect destinations. Clustering methods and compositional data analysis is used as an appropriate statistical approach to analyze share. Incoming tourists to Spain are segmented by trip budget share using repeated cross-sections of official statistics data (2006–2012). One of the main findings is that segments are heterogeneous in their cutting back on expenditure during the economic crisis, and segments increasing in size during the crisis not only spend less but also have the lowest activity share. Furthermore, the paper identifies one of the segments being particularly attractive for destinations in terms both of total expenditure and expenditure profile, with a high activity expenditure share and usually flying with low-cost airlines. The paper contributes to understanding tourist consumer behavior in terms of expenditure pattern at micro level in times of economic recession and its implications for particular destinations.

1. Introduction

The aim of this paper is to contribute to the understanding of expenditure patterns before, during and after the economic crisis. By expenditure patterns, the paper refers to trip budget share or, in other words, expenditure allocation, expenditure composition, expenditure profile or expenditure distribution (percentage of trip budget devoted to accommodation, transportation, activities, and so on). Tourists are segmented on the basis of their expenditure patterns and the evolution of segment importance to destinations is analyzed.

Expenditure-based segmentation has been recognized as having unrealized practical potential for the tourism industry and tourist destinations (Vinnciombe & Sou, 2014). To date, expenditure-based segmentation has mostly been performed using one aggregated expenditure variable. However, the same amount spent on different tourist services has a different impact on the local economy (Hadjikakou, Chenoweth, Miller, Druckman, & Li, 2014) and destinations should be more interested in tourist market segments with certain expenditure patterns.

The analysis of expenditure composition also makes it possible to study tourism consumer behavior regarding expenditure reallocation patterns during economic crises. Bronner and de Hoog (2016) found that crises do not always imply giving up holidays but rather cutting back on certain expenditure components by modifying certain trip attributes, by shortening length of stay or by using cheaper accommodation (e.g. Campos-Soria, Inchausti-Sintes, & Eugenio-Martin, 2015). Such decisions are visible in the analysis of trip budget share. To the best of the authors' knowledge, Bronner and de Hoog (2014) is the only study that segments cutting-back strategies among tourists who modify their behavior with the crisis without giving uptheir holidays.

To fulfill the paper's aim, European tourists arriving in Spain by air, including both low-cost-airline (LCA) and legacy-airline users, are segmented accord to how they allocate trip budget to transportation, accommodation and activities. Repeated cross sections between 2006 and 2012 are used to observe how segments have spent before, during and after the recent economic and financial crisis, which hit a low in Europe between 2009 and 2010 (Eurostat, 2015). The choice of Spain as a destination is supported by the fact that it is ranked as the third destination in the world according to the UNWTO; the majority of foreign tourists arrive by air (80% in 2012); and 90.8% are of European origin (ITE, 2013a).

This study provides destinations with much-needed new evidence on tourist expenditure at a more detailed product level

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(Hadjikakou et al., 2014), as well as an improved understanding of tourist consumer behavior at micro level in times of economic recession and its implications for particular destinations and tourist market segments (Campos-Soria et al., 2015; Sheldon & Dwyer, 2010). This new evidence includes:

- Characterization of different tourist market segments according to trip budget composition.
- Description of the segments using trip and traveler characteristics, including absolute expenditure at destination and length of stay.
- Attractiveness of segments to destinations, and how this evolves.
- Evolution of segments during the crisis.

Furthermore, the study period coincides with the transition of LCAs from growth to maturity in Europe. In the case of incoming tourism in Spain, LCAs accounted for 31.6% of arrivals in 2006, 48.4% in 2008, 55.7% in 2010 and 58% in 2012 (ITE, 2013b). This has triggered a debate regarding the desirability of attracting these airlines to tourist destinations, given the certainty that airline choice and spending behavior at destination are related (Clavé, Saladié, Cortés-Jiménez, Young, & Young, 2015; Laurino & Beria, 2014; Liasidou, 2013). Reduction of transportation costs is visible in the analysis of trip budget share, especially if savings in transportation are used to spend more at destination (Eugenio-Martin & Inchausti-Sintes, 2016; Ferrer-Rosell, Coenders, & Martínez-Garcia, 2015; Martínez-Garcia & Raya, 2008).

2. Literature review

It has been widely acknowledged that tourists traveling to the same destination at the same time spend their budgets in very different ways (Legohérel & Wong, 2006) and that this has different economic impacts on destinations. Even within at-destination expenditures the same amount spent on different tourist services has a different impact on local employment and added value (Hadjikakou et al., 2014), and destinations should be especially interested in tourist market segments with specific expenditure patterns (notably expenditure patterns emphasizing activities at destination). This notwithstanding, while segmentation based on tourist expenditure has a long tradition, it has mainly been univariate. Since the seminal work by Pizam and Reichel (1979), nearly all segmentations of tourist expenditure have merely identified segments with different overall expenditure levels, such as low, medium and high spenders (Díaz-Pérez & Bethencourt-Cejas, 2016; Dixon, Backman, Backman, & Norman, 2012; Hadjikakou et al., 2014; Mok & Iverson, 2000; Saayman, Saayman, & Joubert, 2012; Spotts & Mahoney, 1991; Svensson, Moreno, & Martín, 2011). This is what Dolničar (2004) calls commonsense or a-priori segmentation. Contrarily, so-called data-driven or a-posteriori segmentation tends to go beyond univariate methods. Only Lima, Eusébio, and Kastenholz (2012) have performed a multivariate expenditure segmentation using expenditure by trip budget parts as segmentation base (in other words, absolute expenditure on accommodation, transportation, shopping, and so on).

As opposed to absolute expenditure, trip budget allocation refers to the proportion of expenses allocated to accommodation, transportation, shopping, and so on, within the total trip budget. The study of trip budget share has a solid tradition in economic modeling of tourist expenditure (e.g., Chang, Chen, & Meyer, 2013; Coenen & van Eekeren, 2003; Engström & Kipperberg, 2015; Ferrer-Rosell, Coenders, & Martínez-Garcia, 2015; Fleischer, Peleg, & Rivlin, 2011; Lee, Jee, Funk, & Jordan, 2015). The present paper proposes taking this a step further and segmenting on the basis of trip budget share.

Determining tourist market segments according to trip budget share provides very valuable information that cannot be obtained when doing the same analysis on total expenditure or on absolute expenditure per budget component. The analysis of total absolute expenditure focuses on *how much* tourists spend, while the analysis of budget share focuses on *how* tourists spend (in other words, on expenditure pattern, expenditure shape or expenditure profile; see Ferrer-Rosell, Coenders, Mateu-Figueras, & Pawlowsky-Glahn, 2016). The analysis of absolute expenditure by budget parts is somehow stuck in the middle. From a consumer behavior perspective, a high level of expenditure on a given budget part may hide two different situations, which researchers may be interested in separating: that of a high-budget tourist, with a high expenditure size or volume, and that of a low-budget tourist inclined to spend a lot on that particular budget part, with a particular expenditure pattern (Ferrer-Rosell et al., 2016). From a destination perspective, expenditure patterns are crucial in estimating tourism yield at a destination (Hadjikakou et al., 2014).

To put it in another way, interpreting segmentations by absolute expenditures often proves difficult. For instance, Lima et al. (2012), using absolute expenditures by budget parts, identified some segments related to volume and some related to allocation; Dixon et al. (2012), using total absolute expenditure, found that high overall spenders tended to spend more than low overall spenders on all major budget parts. Conversely, Hadjikakou et al. (2014), when using trip and traveler characteristics as segmentation base on the same data, found that there were indeed different expenditure patterns, and that a particular expenditure pattern had an even greater economic impact on the destination than high overall spenders.

A related development is that proposed by Brida, Disegna, and Scuderi (2014), who use binary variables of spending/not spending on each budget part as segmentation base. This approach is appealing if the researcher's interest lies not in the amount or proportion spent but in grouping 'visitors who spent at least some money on each of the recorded items, and therefore had positive attitude in spending, rather than putting together those who spent similar amounts of money' (Brida et al., 2014, p. 4549).

European tourism scholars describe the financial and economic crisis starting in 2008 as the deepest in the last decades (Eugenio-Martin & Campos-Soria, 2014), as both deep and global in scope (Bronner & de Hoog, 2014) or simply as the Great Recession (Cellini & Cuccia, 2015). In 2009, the reduction in gross domestic product in the EU was 6.04%, and the 2007 levels were not attained until 2011 (Eurostat, 2015). The crisis was not seriously felt everywhere in Europe but it did seriously affect the economies of the main European outbound markets to Spain according to ITE (2013a): the UK, Germany, France, the Nordic countries and Italy (Eurostat, 2015). Economic crises induce changes in behavior by all actors in tourism, beyond merely adjusting quantities and prices. Modifying tourist products by making them more appealing to customers is often encountered as a response, which makes sense when margins are very narrow (Alegre & Sard, 2015). Different types of destination (seaside destinations, mountain destinations, historical and artistic cities, lake and thermal sites, and hills) adapt differently to crises, and certain destinations are more resilient to tourism crises than others (Cellini & Cuccia, 2015).

With regard to tourists themselves, consumption functions depend on the tourism product and change over time reflecting, among other aspects, income variations (Zheng & Zhang, 2013). When studying the impact of economic crises on tourism consumption, tourism has often been argued to be a luxury good (Bronner & de Hoog, 2016). However, recent empirical evidence is mixed. Within vacations abroad, income elasticity is higher with

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