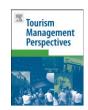Contents lists available at ScienceDirect

Tourism Management Perspectives

journal homepage: www.elsevier.com/locate/tmp

Students' summer tourism: An econometric analysis of trip costs and trip expenditures

Christer Thrane [1]

Lillehammer University College, Faculty of Economics and Organization Science, Box 952, 2604 Lillehammer, Norway

ARTICLE INFO

ABSTRACT

In no prior study have the determinants of variation in students' tourism expenditures been examined from a micro-level point of view. The present study aims to fill this void. Using data from a survey conducted at a Norwegian university college in 2014 and a seemingly unrelated regression (SUR) methodology, three main findings are presented: (1) length of stay, type of accommodation, trip destination, time of booking and type of financing are important determinants of students' summer trip costs and expenditures; students' age and financial situation less so, (2) trip-characteristics are the vital determinants of students' spending on tourism, and (3) there is an interaction effect between length of stay and trip destination on costs and expenditures. This effect suggests that one main reason trips within the Nordic countries are less costly on average than trips beyond the Nordic countries is that the former cost less per day the longer they last. Finally, some managerial and scholarly implications are discussed.

© 2015 Elsevier Ltd. All rights reserved.

1. Introduction

The youth, student and educational travel market numbered 220 million arrivals in 2014, accounting for 20% of all international arrivals, and conservative estimates for 2020 put the number at 300 million, corresponding to US$320 billion.[2] Youth and student tourism, in other words, is very big business indeed. For this pecuniary reason, it is not surprising that the student travel market has been attracting a great deal of attention from tourism academics in recent years. Examples range from the descriptive market segmentation or profiling studies of Bicikova (2014) and Gardiner, King, and Wilkins (2013) to the more sophisticated SEM-modeling work of Varasteh, Marzuki, and Rasoolimanesh (2014) or the multifaceted choice experiments of Grigolon, Kemperman, and Timmermans (2012). Given the student travel market's growing importance – in terms of the revenue it generates and as an academic research topic – it is perhaps puzzling that no study to date has scrutinized students' tourism expenditures at the micro level.[3]

Against this backdrop the present study sets out to do exactly this, namely to examine how a set of micro-level determinants might explain the variation in students' trip costs and expenditures. The empirical context is the vacation trips of students at a Norwegian university college during the summer of 2014. Factors contributing to the variation in (students') tourism expenditures are discussed in Section 2. The purpose of the study is explained in more detail in Section 3, while Section 4 presents the data, variables and some descriptive results. In Section 5, the various econometric models are presented and explicated. Section 6 summarizes, concludes and offers some implications.

2. Prior research

The micro-level economic aspects of student tourism have not been subject of much scholarly inquiry. Chadee and Cutler (1996) and Carr (2005) touched on them when scrutinizing how students financed their engagement in tourism, but neither looked into students' trip expenditures per se. For this reason, one must turn to the general expenditure-modeling literature for guidance on the independent variables or regressors for students' tourism expenditures.

The micro level expenditure-modeling literature is vast and continuously expanding, and both Brida and Scuderi (2013) and Marcussen (2011a) have provided comprehensive reviews. Brida and Scuderi (2013) group the most important regressors of tourism or trip expenditures into four categories: (1) economic constraints, (2) socio-demographic variables, (3) trip-related characteristics and (4) psychographic variables. The present study further collapses these categories into two broader groupings: trip-characteristics and other determinants. This simplification is for two reasons. First, in several previous studies it is concluded that trip-characteristics tend to explain the lion's share of the variation in micro-level tourism expenditures (e.g. Abbruzzo, Brida, & Scuderi, 2014; Kastenholz, 2005; Thrane,

---

2014). As such, this classification distinguishes the most important regressors from the less vital.[4] Second, this classification also fits well with the variables available for analysis in the empirical section of this study. Readers interested in regressors that are not considered in depth in the discussion below (i.e. Sections 2.1 and 2.2) are referred to the review papers mentioned above (Brida & Scuderi, 2013; Marcussen, 2011a).

2.1. Trip-characteristics as determinants of trip expenditures

Trip-characteristics or attributes are vital determinants of the variation in tourists' trip expenditures measured by any standard. And among these attributes, tourists' length of stay (LOS) is one of the most essential judged by how often it is used as a regressor or by its individual explanatory power (Brida & Scuderi, 2013; Marcussen, 2011a; Thrane, 2014). The effect of LOS on tourism or trip expenditures, however, depends on how the latter is measured. If the dependent variable is total trip expenditures, the effect is positive — albeit diminishing for higher values of LOS (e.g. Kozak, Gokovali, & Bahar, 2008; Thrane & Farstad, 2011); if it is daily trip expenditures, the effect is typically negative at a waning rate (e.g. García-Sánchez, Fernández-Rubio, & Collado, 2013; Perez & Sampol, 2000). A more or less fixed budget for travel and tourism purposes explains both of these associations (Thrane & Farstad, 2011).

Type of accommodation is another frequent regressor of tourists' trip expenditures (Brida & Scuderi, 2013). The characteristic finding is that stays at hotels or in other types of commercial lodging incur larger expenditures than stays at less commercial establishments — such as camping areas, cottages, friends/relatives and so on. A number of previous studies have unearthed variations in this pattern (Agarwal & Yochum, 1999; Alegre, Cladera, & Sard, 2011; Fredman, 2008; García-Sánchez et al., 2013; Jones, Wood, Catlin, & Norman, 2009; Kozak et al., 2008; Laesser & Crouch, 2006; Marcussen, 2011a; Perez & Sampol, 2000; Santos & Vieira, 2012; Thrane, 2014; Van Loon & Rouwendal, 2013).

Where one travels, as in type of destination, also appears to affect tourism expenditures (Brida & Scuderi, 2013; Marcussen, 2011a). For example, and of special relevance for this study, tourists traveling abroad tend to spend more than domestically traveling tourists ceteris paribus (e.g. Marcussen, 2011b; Thrane, 2015). Purpose of trip and trip motives are two frequently used regressors with ample explanatory power when it comes to tourism expenditures at the micro level (Brida & Scuderi, 2013; Marcussen, 2011a). In this regard, Brida and Scuderi (2013) place purpose of trip among the trip-characteristics and trip motives among the psychographic factors. If one thinks of trip motives along the lines of being the reasons tourists have for going on a specific trip, trip motives could arguably belong among trip-characteristics. Whatever the case in practice, a number of studies have successfully related trip purposes/motives to trip expenditures (Alegre et al., 2011; García-Sánchez et al., 2013; Jang, Yu, & Pearson, 2003; Jang, Cai, Morrison, & O'Leary, 2005; Laesser & Crouch, 2006; Lehto, Cai, O'Leary, & Huan, 2004; Marrocu, Paci, & Zara, 2015; Saayman & Saayman, 2014; Thrane, 2014; Thrane & Farstad, 2011, 2012; Veisten, Lindberg, Grue, & Haukeland, 2014).

Whether or not a tourist is visiting a destination for the first time might affect his or her trip expenditures. The most compelling evidence, backed by theoretical arguments, suggests that first-timers generally spend more than repeaters ceteris paribus (Alegre & Cladera, 2010; Alegre & Juaneda, 2006). A number of later studies have confirmed this relationship (e.g. García-Sánchez et al., 2013; Lee, Jee, Funk, & Jordan, 2015; Sato, Jordan, Kaplanidou, & Funk, 2014), but see for example Marrocu et al. (2015) for the reverse. When a trip is booked

is only used occasionally as a regressor of trip expenditures. In this respect, Perez and Sampol (2000) found that advance booking had negative effects on trip expenditures (compared to a 3–6 month reference category), suggesting that trips booked well in advance had larger daily trip expenditures than trips booked at a later point in time (see also Chhabra, Sills, & Rea, 2002). More recently, in a related manner, Choe, Stienmetz, and Fesenmaier (2014) found that those who planned the trip more than two months in advance had larger total trip expenditures than those planning the trip closer to the time of departure.

2.2. Other determinants of trip expenditures

Although an increasing amount of research is identifying trip-characteristics as the primary drivers of trip expenditures, other determinants are clearly relevant. However, since the present study is concerned with homogeneous students' trip expenditures, a number of these are probably not as important as they are in samples of a more heterogeneous nature (e.g. a representative sample of all tourists at a particular destination, or a representative sample of households). Two important cases in point are age and income – typically considered as two of the key drivers of micro level tourism expenditures (Brida & Scuderi, 2013) – since these variables will most likely have much less variation in a student sample. For the same reason, this also applies to variables such as health, education level, and family size and composition. That said, however, it is to be expected that a student's financial situation, which might be related to age, puts the same constraints on his/her travel and tourism behavior as on everybody else's. Hence, two variables measuring aspects of students' financial situation are used as regressors in the econometric analysis, and these are further described Section 4.3.

3. The present study

Using the general micro-econometric expenditure-modeling literature as a stepping-stone, the present study examines how a number of determinants explain the variation in students' tourism expenditures. Yet, since a number of students rely to a certain extent on others (e.g. parents, boy/girlfriends) to finance their tourism behavior (Carr, 2005; Chadee & Cutler, 1996), the study distinguishes between two measures of student tourism spending: total trip costs (TTC) and total trip expenditures (TTE). Whereas the former variable refers to the total cost of student *i*'s trip irrespective of what he or she actually paid, the latter points to *i*'s own-pocket expenditures regarding the trip in question.[5] Formally, the conceptual model guiding the multivariate analysis may be expressed as

$$TTC/TTE = f(TC, OD), \qquad (1)$$

where TC and OD refer to trip-characteristics and other determinants. In other words, the study holds that TTC and TTE are additive functions of various features describing the trip in question (TC) and a set of other determinants (OD). Since most students will likely pay for the main part of their trip with their own money, TTC and TTE are expected to be positively correlated. For this reason the study uses the SUR-methodology developed by Zellner (1962) as the main estimation strategy (see Section 5).

4. Data, variables and descriptive results

4.1. Data

The data are from a survey carried out at a medium-sized Norwegian university college during November and December 2014. To ensure

---

[4] In any given study, however, whether or not the trip-characteristics explain most of the variation in trip expenditures is entirely an empirical matter. This will be returned to in Section 5.

[5] Splitting tourism spending into total costs and total own-pocket expenditures is not common in the literature to date.