

Analysing off-season tourist expenditure

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Abstract

The majority of researches deal with the issue of micro-level expenditure in the high season, leaving off-season expenditure an under-researched topic. Moreover, the relationship between tourist satisfaction and expenditure has been also rarely explored. Thus, the aim of this study is to determine the factors that influence the off-season expenditure levels of light spenders and heavy spenders. Among the set of predictors, various dimensions of satisfaction were tested as possible off-season expenditure predictors. Descriptive analysis was used for sample profiling, independent t-tests were conducted to determine significant differences between light and heavy spenders in terms of their characteristics, and Principal Components Analysis (PCA) was applied to identify the dimensions of tourist satisfaction with the destination's offering. In the end, multiple regression analyses were made to identify the expenditure determinants of light and heavy spenders. The main findings indicate that different predictors influence the daily off-season expenditure levels of light and heavy spenders. When it comes to light spenders, among the set of other significant predictors, it was found that those who are more satisfied with the cleanliness and preserved environment tend to spend more in the destination in comparison with those who are less satisfied with this dimension. In the case of heavy spenders, the results revealed that satisfaction with safety, quality and hospitality turned out to be a statistically significant predictor of their daily off-season expenditure.

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Introduction

Researching the level, structure and determinants of micro-level expenditure is an essential issue in determining the economic impact of tourism for a destination. Thrane (2016) underlines that the ability to tell big spenders and little spenders apart might yield a competitive advantage in any business, thus it

could also be helpful to additionally examine the determinants of micro-level tourism expenditure. In addition, the profile of the segments divided according to expenditure allows travel marketers to better identify and target specific sociodemographic groups (Jang *et al.*, 2001). Hence, one of the aims of this study is to examine whether statistically

significant differences exist among light and heavy spenders in terms of economic, socio-demographic and trip-related characteristics. A review of the literature shows that the majority of studies on tourist expenditure investigate its determinants during the summer season, while a smaller number of studies deal with tourist attitudes and expenditure patterns in the off-season (Kozak and Rimmington, 2000). Therefore, the main aim of this study is to determine the influence of a set of independent variables on off-season tourist expenditure and to study the dependence between daily tourist expenditure per person across two groups of respondents, one representing light spenders and the other, heavy spenders. Light spenders comprise those respondents whose daily expenditure is average or below average. In contrast, heavy spenders are those spending more than average in the destination. An additional aim is to find out whether satisfaction with various attributes of the destination offering determines the daily off-season expenditure. The reason for focusing on satisfaction as an expenditure determinant lies in the fact that in the tourism literature there is a lack of studies that examine the relationship between tourist satisfaction and expenditure (Disegna and Osti, 2016; Kim *et al.* 2010; Zhang *et al.*, 2010). The survey was carried out in the area of Rijeka and the Opatija Riviera, Croatia from January to the end of May 2016. The majority of tourism arrivals (46.5%) in this destination occur during summer (Croatian Bureau of Statistics, 2016), indicating heavy seasonality issues. This is the main reason why the vast majority of tourism research is indeed done during the summer. Seasonal variations of demand generate, among others, significant economic problems in terms of profits loss due to the lower number of tourist arrivals and overstays and inefficient use of resources and facilities. Thus, destinations are focusing their efforts on seasonality smoothing by enhancing and diversifying tourism offering during off-season periods. In order for them to develop and sustain competitive advantage and to extend the season, as Koc and Altinay (2007) point out, there is a need for better understanding of the off-season tourists' characteristic and their spending patterns for better planning and effective resource allocation. Due to the fact that the seasonal

pattern in per capita tourist expenditure is generally overlooked (Koc and Altinay, 2007), this study aims to fill that gap since it uses data obtained from tourists who stayed in this destination in the first part of the year, before "sun and sea" become the main focus of tourism demand and supply. Thus, this study is focused on tourist attitudes and spending patterns in the off-season, providing destination management with valuable information needed for future decisions on the efficient resources allocation.

Tourist expenditure – a literature review

A literature review shows that international tourism demand is analysed more at the macro level, in which the unit of analysis is aggregated data (such as total arrivals, nights spent at tourist accommodation establishments, and total tourist receipts), as many authors have confirmed (Brida and Scuderi, 2013; Craggs and Schofield, 2009; Disegna and Osti, 2016; Fredman, 2008; Nicolau and Mas, 2005). Disegna and Osti (2016) point out that in order to measure and determine the depth of the economic benefits experienced by the destination it is necessary to analyse micro data in which individuals or households are the principal unit of analysis. One of the advantages of using micro data is that they are direct reports of the tourism expenditures of individual tourists together with the different characteristics of the tourist (Belenkiy and Riker, 2013), that can be used to control or profile the units of analysis (Disegna and Osti, 2016). Hung *et al.* (2012) underline the need to understand the determinants of tourism expenditure since the revenue has become a major source of income in many destinations. Thus, the analysis of individual tourist expenditure and of visitor spending behaviour can play a crucial role in achieving a better understanding of the tourism economic benefits for a destination (Disegna and Osti, 2016).

General issues

One of the most employed approaches in gathering primary data on the size and characteristics of tourist spending is conducting a survey on a sample of tourists, asking them to recall how much they spent during their stay in the destination as well as how these

expenditures were distributed among various travel activities (Frechtling, 1974). This method is widely applied (in this study as well) since it permits direct estimation of total expenditures (Frechtling, 1974). Furthermore, according to Brida and Scuderi (2013), studies on the determinants of tourist expenditure most commonly apply the classic linear regression model through OLS estimates. Kastenholz (2005), Kozak (2001), Marcussen (2011), Medina-Muñoz and Medina-Muñoz (2012), Nicolau and Mas (2005), Perez and Sampol (2000), Svensson *et al.* (2011), Smolčić Jurdana and Soldić Frleta (2016), Tang and Turco (2001), Thrane and Farstad (2012), Wang and Davidson (2010b), and Zhang *et al.* (2010) are some of the large number of authors reporting OLS models estimates. A smaller number of authors presented Tobit or double-hurdle estimates as well as quantile and switching regression estimates (Brida and Scuderi, 2013).

When it comes to expenditure as a dependent variable, in the literature expenditure levels are expressed through four possible categories of indicators: total expenditure for the whole trip (per party, per household, per interviewee), expenditure per day, expenditure per person, and expenditure per person per day (Brida and Scuderi, 2013). In this study, tourist expenditure is expressed as daily expenditure per person transformed through logarithms, as Thrane (2014) indicates that using a natural logarithm of positive expenditures tends to mitigate heteroscedasticity and often reduces the influence of outliers, yielding a better model fit.

Variables influencing tourist expenditure

The literature suggests that a great number of variables may influence tourist expenditure levels (Brida and Scuderi, 2013; Disegna and Osti, 2016; Marcussen, 2011; Thrane, 2016). Those variables are usually grouped in four main categories: economic, sociodemographic, trip-related, and psychographic characteristics (Marrocu *et al.*, 2015).

Economic variables could include financial and nonfinancial assets as well as income sources. In terms of economic variables, the vast majority of authors use income as a potential

expenditure determinant. In most cases, authors have found a positive and significant relationship between family income level and tourist expenditure (Brida and Scuderi, 2013).

Sociodemographic variables include age, gender, marital status, education level, occupation, place of residence, nationality, size and composition of the household, etc. In the case of sociodemographic variables, the empirical findings of their effect on tourist expenditure are often in conflict. According to Brida and Scuderi (2013), age is the most commonly used sociodemographic variable in the expenditure models. However, there are many examples of both negative and positive age effects on total trip expenditure (Thrane, 2016; Brida and Scuderi, 2013). Similar findings are also reported on the effects of origin, education level, occupation, place of residence and nationality on total trip expenditure (Brida and Scuderi, 2013). According to Brida and Scuderi's (2013) extensive review, in the majority of studies gender resulted in a non-significant relationship with expenditure.

The trip-related characteristics include mode of transport, accommodation type, purpose of travel, length of stay, destination, size and composition of travel party, travel package, activities, previous travel experiences, etc. (Brida and Scuderi, 2013; Thrane, 2016). Results regarding the effect of trip-related variables on micro-level tourism expenditure are also often in conflict (Wang and Davidson, 2010a). Nevertheless, many authors have reported that both mode of transportation (Downward and Lumsdon, 2004; Fredman, 2008; García-Sánchez *et al.*, 2013; Kim *et al.*, 2008; Kim *et al.*, 2011; Thrane, 2014, 2016) and accommodation type (Agarwal and Yochum, 1999; Aguilo and Juaneda, 2000; Fredman, 2008; García-Sánchez *et al.*, 2013; Kozak *et al.*, 2008; Laesser and Crouch, 2006; Lehto *et al.*, 2004; Perez and Sampol, 2000; Smolčić Jurdana and Soldić Frleta, 2016; Svensson *et al.*, 2011; Thrane, 2014, 2016) turned out to be significant predictors of tourism expenditure. In addition, previous studies found that the purpose of travel also affects expenditure (Jang *et al.*, 2005; Lehto *et al.*, 2004; Laesser and Crouch, 2006; García-

Sánchez *et al.*, 2013, Thrane, 2016). As expected, length of stay is also one of the most frequently used variables in regression models and the majority of studies reported a significant relationship between length of stay and micro-level tourism expenditure (Brida and Scuderi, 2013). The extensive review of the same authors reported that the variables related to party dimension and composition were also among the most used independent variables tested and that in many cases they turned out to be significant predictors of expenditure (Brida and Scuderi, 2013). However, in this case, the results are also often in conflict, since some authors reported positive and others, negative significant relationships between party size/composition and tourist expenditure (Wang and Davidson, 2010a). According to Brida and Scuderi (2013), previous travel experience, in terms of repetition or frequency of visit, is also frequently used in regression models and in many cases was found not to be a significant predictor of tourist expenditure. In addition, the same authors point out that in the literature there is evidence of both negative and positive effects of both the type of trip organization and activities taken in the destination on tourist expenditure.

Psychological variables include tourist evaluation of different categories (trip, holiday, vendor, destination offering attributes), sociological characteristics, trip motivation and taste (Wang and Davidson, 2010a), with motivation being the most frequently applied variable. Wang *et al.* (2006) and Lehto *et al.* (2002) underline that psychological factors are important for the choice of destination and spending decisions. However, these variables are rarely employed and Brida and Scuderi (2013) point out that one of the reasons for such limited use may be the evidence that official datasets rarely survey psychological characteristics of the consumer directly. Therefore, such data are not easily available, because collecting them is time and money consuming. In that context there is a literature gap that indicates the need for more frequent inclusion of these variables in the models testing their relationship with the micro-level tourism expenditure.

Previous studies (Aguilo and Juaneda, 2000; Craggs and Schofield, 2009; Dolnicar *et al.*, 2008; Legoharel, 1998; Mok and Iverson, 2000; Spotts and Mahoney, 1991) applied tourism expenditure as a segmentation variable to distinguish between heavy spenders and light spenders in terms of demographic and socioeconomic factors (Hung *et al.*, 2012). On the other hand, studies that include satisfaction with the tourism offering as a predictor of tourist expenditure are scarce (Disegna and Osti, 2016). As Lee (2015) emphasises, destinations need to achieve tourist satisfaction in order to be more sustainable and successful in a competitive environment. Authors like Anderson and Sullivan (1993), Anderson *et al.* (1994), Andriotis *et al.* (2008), Kozak and Rimmington (2000), Marcussen (2011), Meng (2008), Naidoo, *et al.* (2010), Osman and Sentosa (2013), Suhartanto *et al.* (2016), Taylor *et al.* (2004) confirmed that a high level of satisfaction leads to greater customer loyalty to certain services and/or products and that consumer satisfaction, by increasing loyalty, helps to secure future income (Anderson *et al.*, 1997; Baker and Crompton, 2000; Munier and Camelis, 2013). In addition, higher levels of satisfaction result in greater tolerance of price increases and an enhanced reputation (Baker and Crompton, 2000). However, Disegna and Osti (2016) point out that the relationship between satisfaction-with-destination attributes and expenditure is under-researched. The literature review revealed that just a few studies have examined the relationship between satisfaction and expenditure (Chen and Chang, 2012; Craggs and Schofield, 2009; Disegna and Osti, 2016; Kim *et al.*, 2010; Serra *et al.*, 2015; Smoličić Jurdana and Soldić Frleta, 2016; Wang and Davidson, 2010b; Zhang *et al.*, 2010). Among the mentioned studies, only the study results of Wang and Davidson (2010b) revealed that satisfaction with a trip is not significantly associated with tourist expenditure, while all other studies have reported satisfaction as a significant predictor of expenditure. Nevertheless, it is evident that only a small number of authors have tested whether the satisfaction of tourists influences their expenditure level, thus, there is a need for further research on this topic in order to achieve a better understanding of the role of

satisfaction in influencing the expenditure patterns of individuals (Kim *et al.* 2010).

Conclusion on literature review

As seen from the previous literature review, tourist expenditure and its determinants have been widely investigated (Marrocu *et al.*, 2015; Thrane, 2014, 2016). It can be concluded that, as Mayer and Vogt (2016) state, the statistical methods used in investigating the expenditure determinants range from variance analyses to regression methods (OLS or quantile regression) or more advanced econometric techniques such as double-hurdle. Additionally, a large set of explanatory variables have been included in different studies and they are usually grouped in four groups: economic, sociodemographic, trip-related, and psychographic variables. Among them, the first three groups are most commonly applied in determining tourist expenditure. However, as reported earlier, the literature review revealed that psychological variables are rarely employed in models determining tourist expenditure. In addition, Thrane (2014) encourages adding some new or 'extra' predictors to the model, so the satisfaction variables used in this study ought to qualify in that regard.

Finally, it has to be noted that results reported by different authors are often in conflict since in some studies certain variables turned to be significant predictors of tourist expenditures and in others not. Moreover, studies differ regarding the sign of the relationship found between different variables and expenditures. For this reason the need for further research on tourist expenditures' determinants still exists.

Methodology

Primary data were obtained from tourists staying in Rijeka and Opatija via face-to-face interviews. Surveys were disseminated to non-resident individuals aged 18 or older who spent at least one night in this destination. The survey was administrated by interviewers at different places and different times of the day, during January to the end of May 2016. Respondents were randomly approached in the tourist information centres, different accommodation establishments and on sites where popular events took place. All questionnaires were collected immediately after

completion in the presence of the interviewers. To identify statistical sample tourist arrivals during first part of the 2015 in Rijeka and Opatija Riviera were considered. Around 200000 tourists visited this destination from January to May 2015, representing 27% of the total number of tourist arrivals in Rijeka and Opatija Riviera in 2015. In collecting the data, a stratified sampling method was used to select a sample, using period of the visit of the respondents, destination where respondents were staying, their origin, and type of accommodation used. For the period of visit, destination and origin population data were drawn from the Croatian Bureau of Statistics (2016), while the data for the overnights by the accommodation type were drawn from the Tourism Boards of Rijeka and Opatija (2016). According to those data interviewers were provided with a profile and a number of respondents that they had to interview in order to get a representative sample. A total of 400 tourists were approached, however a total of 358 questionnaires with complete information on expenditure were used in the data analysis giving an effective response rate of 89.5%.

The questionnaires were anonymous and offered in 4 languages. The questionnaire is divided into four main sections. The first section refers to the level of satisfaction with different destination attributes and overall satisfaction with the destination. The second section aims to gather sociodemographic characteristics of the interviewee (residence, gender, age, education level and monthly income) while the third section refers to trip characteristics (motivations, trip organization, means of transportation, type of accommodation, number of nights spent, intentions to return, and recommendation). The last section of the questionnaire gathers information on expenditure (total expenditure divided into seven different categories of expenditure).

SPSS 23 was used for descriptive analysis for sample profiling; independent t-tests to verify the existence of significant differences between light and heavy spenders in terms of their economic, sociodemographic and trip-related characteristics; Principal Components Analysis (PCA) to identify dimensions of the tourists' satisfaction with the destination's offering; and

multiple regression analysis to identify the expenditure determinants of light and heavy spenders.

Results

Descriptive analysis

The sample was divided into two groups of respondents, light spenders and heavy spenders, in order to compare the main characteristics of the groups as well as to find the determinants of their expenditures. Light spenders are those respondents who, on average, spend 84 € or less per person per day in the destination. Heavy spenders represent respondents spending 85 € and more per day

per person. The sociodemographic and economic profiles of the respondents as well as the characteristics of their trip are summarized in Table 1.

Independent t-tests were conducted to verify whether significant differences existed between the light and heavy spenders. The results of these analyses revealed that age, monthly income, trip organisation, accommodation type, length of stay and recommendation of a destination to others differed significantly across the two segments. On the other hand, gender, education level, origin, number of visit to the destination, type of transportation,

Table 1. The sample characteristics

| Characteristic | Light | Heavy | t | Characteristic | Light | Heavy | t |
|------------------------------|-------|-------|------------------|-------------------------------|-------|-------|------------------|
| | N=209 | N=149 | | | N=209 | N=149 | |
| | % | | | | % | | |
| Gender | | | <i>t</i> =-0.196 | Accommodation | | | <i>t</i> =-6.835 |
| Male | 50.7 | 49.7 | <i>p</i> =0.845 | 3* hotel or less | 22.1 | 22.8 | <i>p</i> =0.000 |
| Female | 49.3 | 50.3 | | 4* or 5* hotel | 15.8 | 53.7 | |
| Age | | | <i>t</i> =-2.434 | Camp | 3.8 | 1.3 | |
| <= 27 | 28.7 | 16.9 | <i>p</i> =0.015 | Private apartments | 28.2 | 13.4 | |
| 28 - 35 | 19.1 | 18.2 | | Friends and relatives | 18.2 | 3.4 | |
| 36 - 43 | 17.7 | 23.0 | | Hostel | 12.0 | 5.4 | |
| 44 - 51 | 18.2 | 20.3 | | Number of visit | | | <i>t</i> =-1.775 |
| 52+ | 16.3 | 21.6 | | First visit | 41.6 | 51.0 | <i>p</i> =0.080 |
| Educational level | | | <i>t</i> =-1.266 | Repeat visit | 58.4 | 49.0 | |
| Elementary school | 0.0 | 1.3 | <i>p</i> =0.206 | Mode of transportation | | | <i>t</i> =-1.136 |
| High school | 35.4 | 28.9 | | Car | 59.8 | 63.8 | <i>p</i> =0.257 |
| College | 31.1 | 28.2 | | Bus | 32.5 | 24.8 | |
| University degree | 32.5 | 40.9 | | Plane | 1.9 | 10.7 | |
| Other | 1.0 | 0.7 | | Train | 0.5 | 0.0 | |
| Monthly family income | | | <i>t</i> =-3.860 | Motorbike | 4.8 | 0.7 | |
| Up to 500 € | 6.2 | 4.7 | <i>p</i> =0.000 | Ship | 0.5 | 0.0 | |
| 501 – 1.000 € | 19.6 | 11.4 | | Traveling group type | | | <i>t</i> =0.806 |
| 1.001 – 1.500 € | 21.1 | 17.4 | | alone | 13.9 | 12.8 | <i>p</i> =0.421 |
| 1.501 – 2.000 € | 25.4 | 17.4 | | with partner | 29.7 | 40.9 | |
| 2.001 – 2.500 € | 12.0 | 16.8 | | with family members | 34.0 | 25.5 | |
| 2.501 – 3.000 € | 6.7 | 16.1 | | with friends/acquaintances | 21.0 | 16.1 | |
| 3.001 – 3.500 € | 6.2 | 6.0 | | with associates | 1.4 | 4.7 | |
| 3.500 € and more | 2.9 | 10.1 | | Intention to return | | | <i>t</i> =-0.564 |
| Country of origin | | | <i>t</i> =1.044 | Yes | 89.5 | 91.3 | <i>p</i> =0.573 |
| Domestic | 63.2 | 68.5 | <i>p</i> =0.297 | No | 10.5 | 8.7 | |
| Foreign | 36.8 | 31.5 | | Intention to recommend | | | <i>t</i> =-2.917 |
| Trip organisation | | | <i>t</i> =-3.524 | Yes | 91.4 | 98.0 | <i>p</i> =0.004 |
| Individually organised | 81.8 | 65.1 | <i>p</i> =0.000 | No | 8.6 | 2.0 | |
| Package tour | 18.2 | 34.9 | | | | | |

traveling group type and intention to return did not show statistical significance at the 0.05 level (Table 1).

As indicated in Table 1, the sample of light and heavy spenders is balanced in terms of gender. The results showed that the average age of light spenders and heavy spenders is 38 and 41 years, respectively. In terms of monthly income, 66% of light spenders have a family monthly income of 500 - 2000€, and only 2.9% of them have an income of 3500€ or higher. On the other hand, as expected, almost 39% of high spenders have an income of 2000 - 3000€ and 10.1% have a monthly income of 3500€ or higher.

Both samples (light and heavy spenders) comprise a considerable number of foreign tourists (63.2% and 68.5%, respectively). Results also indicated that 35.4% of light spenders hold a high school degree, while 40.9% of heavy spenders hold a university degree. In terms of type of accommodation, as expected, the majority of heavy spenders stayed in 4 or 5 * hotels (53.7%) or 3* hotels (22.8%). On the other hand, the majority of light spenders stayed in private accommodation (28.2%) and 3* hotels (22.1%). In both cases, the majority of the respondents came to the destination by car (59.8% of light and 63.8% of heavy spenders). However, 10.7% of heavy and only 1.9% of light spenders came by plane (Table 1).

As far as travelling group type is considered, the majority of light spenders are traveling with family members (34%), while the majority of heavy spenders are traveling with a partner (40%). As can also be seen in Table 1, 51.1% of heavy spenders were on their first visit, while 58.4% of light spenders had already visited this destination before. Both light and heavy spenders tend to individually organise their trips to this destination (81.8% and 65.1% respectively) and stated that they have an intention to return (89.5% and 91.3% respectively). In addition, results show that for both samples, the main reasons for visiting Rijeka and Opatija are rest and recreation (indicated by 24.3% and 23.9% of light and heavy spenders, respectively) or fun and new experiences (25.9% and 23.9% of light and

heavy spenders, respectively). The average length of stay of light spenders is 6.4 days and of heavy spenders, 4.9 days.

The results of this study offer detailed information on the amount of money spent in the destination in seven main tourism categories: expenditure on accommodation (which also includes expenditure on food and beverage in the accommodation premises), expenditure on food and beverages consumed outside the accommodation premises, expenditure on entertainment and culture, expenditure on sport and recreation, expenditure on shopping (including souvenirs, gifts, clothes, etc.), expenditure on excursions, and expenditure on other products and services (including medical treatments, language courses, transportation in the destination, etc.). The traveling costs to and from the destination are excluded.

In addition it has to be noted that some proportion of the sample reports zero expenditure for one or more expenditure categories simply because of not spending money on certain products and services in the destination. As Thrane (2016) points out, for on-site studies in which total trip expenditure is the dependent variable, the 'zero expenditure problem' is practically non-existent because it is almost impossible not to spend any money at all on the trip in question. If, however, the dependent variable is expenditure on a specific tourism service (for example, lodging, entertainment, sports, etc.), zero expenditure is very likely for some proportion of the sample (Thrane, 2016). Thus, since respondents only enter numbers in expenditure categories in which they have incurred expenses, blank responses in this study were replaced with a zero, as suggested by Stynes and White (2006) if the respondent reported positive spending in at least one other category. The same authors underlined that if those categories are not replaced with zeros, the means for each spending category will be based on a different number of respondents, and the averages will be inflated (Stynes and White, 2006).

As can be seen in Table 2, the overall mean of daily tourist expenditure per person is 83.99€. When it comes to light spenders, they spend on

average 55.23€ per day per person, while the daily expenditure per person of heavy spenders is 124.06€ on average. Respondents in both cases (light and heavy spenders) spent most of their tourism budget on accommodation (41% and 48%, respectively) and on food and beverages (23% and 20%, respectively). However, light spenders spent 13% of their budget on shopping, 9% on entertainment, 5% on both excursions and other services and only 3% on sport. On the other hand, heavy spenders spent 14% of their budget on shopping; 7% on entertainment, 5% on excursions, 4% on other services and 2% on sport. Despite the similar expenditure structure, it has to be pointed that there is a statistically significant difference in total average daily expenditure per person between the light and heavy spenders. Moreover, there is a statistically significant difference in all expenditure categories (except in expenditure on sport and recreation) between the two groups (Table 2).

Principal Components Analysis (PCA)

In the first section of the questionnaire respondents were asked to indicate their satisfaction level with 22 different destination attributes using a scale from 1 being 'strongly dissatisfied' and 5 being 'strongly satisfied'. As Maunier and Camelis (2013) underlined, the delivery of good core services alone cannot

guarantee customer satisfaction. Moreover, overall satisfaction and repurchase intention are differentially influenced by the various destination products and services that tourists are experiencing during their stay in a destination (Maunier and Camelis, 2013). Therefore, in order to gain a better understanding of tourist satisfaction level it is necessary to find out how tourists are satisfied with each attribute that is part of the destination offering, and not just refer to satisfaction as a one-dimensional variable. In that context and given that the tourists' satisfaction was assessed on a wide range of attributes, a principal component analysis of 22 items with Oblimin rotation permitted the identification of satisfaction dimensions to be used in subsequent analyses. After excluding one item (value for money) due to low communalities, an appropriate solution was obtained (with 21 items), according to the criteria suggested by Hair *et al.* (2005) regarding Kaiser–Meyer–Olkin, Bartlett's test of Sphericity, communalities, factor loadings, variance explained and Cronbach's alpha (Kastenholz *et al.*, 2016). After the first run, the examination of factor loadings revealed that only one attribute (value for money) fell below the 0.50 threshold and should be eliminated from the factor matrix (Lee, 2015). Thus, in the second phase, principal component analysis with Oblimin rotation was conducted to compress the 21

Table 2. Mean daily expenditure by different tourism categories per person (€)

| Category | Whole sample N=358 | Light spenders N=209 | Heavy spenders N= 149 | t Sig. (2-tailed) |
|-----------------------------------|-----------------------|-------------------------|--------------------------|----------------------|
| Accommodation | 38.09 | 22.86 | 59.44 | t=-13.293 p=0.000 |
| Food and beverages | 17.99 | 12.94 | 25.07 | t=-8.546 p=0.000 |
| Entertainment and culture | 6.69 | 5.19 | 8.79 | t=-4.048 p=0.000 |
| Sport and recreation | 1.73 | 1.53 | 2.02 | t=-1.282 p=0.201 |
| Shopping | 11.51 | 7.43 | 17.23 | t=-7.118 p=0.000 |
| Excursions | 4.06 | 2.49 | 6.27 | t=-4.548 p=0.000 |
| Other products and services | 3.81 | 2.79 | 5.24 | t=-3.115 p=0.002 |
| Total daily expenditure/person | 83.88 | 55.23 | 124.06 | t=-20.738 p=0.000 |

items into fewer manageable factors. Kaiser–Meyer–Olkin (KMO) of the study was 0.830 in the meritorious range according to Kaiser (1974). Bartlett's test of sphericity was 2204.401 with significance lower than 0.001, indicating that data were suitable for factor analysis (Hair *et al.*, 2005; Lee, 2015). Following the recommendation of Child (1970), only items with communality estimates >0.30 were taken into consideration (Table 3). Using an eigenvalue ≥ 1 , four factors were suggested for retention, explaining 51.2% of the variance.

After second-time PCA analysis, a clear structure was revealed for the four dimensions, which were then labelled as follows: dimension

1 - 'Environmental preservation and maintenance'; dimension 2 - 'Diversity of facilities'; dimension 3 - 'Information and transport'; and dimension 4 - 'Safety, quality and hospitality' (see Table 4). Reliability analysis (Cronbach's α) was conducted to test the reliability and internal consistency of each component. All factors present high reliability since the α coefficients of the four dimensions ranged from 0.703 to 0.799, therefore above the value of 0.70, which is according to Baggio and Klobas (2011) considered acceptable as an indication of reliability (Table 4).

As seen in Table 4, results show that respondents are most satisfied with the 'Safety,

Table 3. Results of the second-time Principal components analysis (N = 358)

| | Component | | | | Communality |
|--|-----------|--------|--------|-------|-------------|
| | 1 | 2 | 3 | 4 | |
| Cleanliness of the destination | 0.831 | | | | 0.640 |
| Preserved environment | 0.810 | | | | 0.694 |
| The beauty of nature and landscapes | 0.744 | | | | 0.575 |
| Equipment and maintenance of the beaches | 0.573 | | | | 0.469 |
| Sports facilities | | -0.791 | | | 0.637 |
| Entertainment opportunities | | -0.740 | | | 0.564 |
| Facilities for children | | -0.702 | | | 0.529 |
| Diversity of cultural events | | -0.669 | | | 0.538 |
| Excursion offering | | -0.609 | | | 0.405 |
| Shopping opportunities | | -0.529 | | | 0.330 |
| Availability of information in the destination | | | -0.741 | | 0.543 |
| Clearly signposted tourist directions in the destination | | | -0.736 | | 0.571 |
| Quality of information on the destination's website | | | -0.728 | | 0.512 |
| Transportation links | | | -0.650 | | 0.431 |
| Quality of local transport | | | -0.492 | | 0.466 |
| Quality of accommodation facilities | | | | 0.761 | 0.564 |
| Quality of catering facilities | | | | 0.745 | 0.560 |
| Cordiality of employees in tourism | | | | 0.484 | 0.480 |
| Cultural and historic heritage | | | | 0.432 | 0.351 |
| Friendly and hospitable residents | | | | 0.403 | 0.480 |
| Feeling of personal safety and security | | | | 0.373 | 0.412 |

Note: Rotation method: Oblimin with Kaiser normalisation

Table 4. Tourism satisfaction components and Cronbach's α reliability coefficients

| Component | Mean | Std. deviation | Cronbach's Alpha | Correlations | | | |
|---|-------|----------------|------------------|--------------|---------|---------|---|
| | | | | 1 | 2 | 3 | 4 |
| 1 <i>Environmental preservation and maintenance</i> | 4.008 | 0.6008 | 0.754 | 1 | | | |
| 2 <i>Diversity of facilities</i> | 3.493 | 0.6522 | 0.799 | 0.186** | 1 | | |
| 3 <i>Information and transportation</i> | 3.760 | 0.5672 | 0.729 | 0.318** | 0.353** | 1 | |
| 4 <i>Safety, quality and hospitality</i> | 4.132 | 0.4931 | 0.703 | 0.454** | 0.236** | 0.397** | 1 |

** Correlation is significant at the 0.01 level (2-tailed).

Table 5. Determinants of total daily expenditure in the destination, light spenders (N=209)

| Variables | Unstandardized Coefficients | | Collinearity Statistics | |
|--|-----------------------------|------------|-------------------------|-------|
| | B | Std. Error | Tolerance | VIF |
| (Constant) | 3.380 | 0.353 | | |
| Month | 0.054* | 0.027 | 0.795 | 1.258 |
| Age | -0.020 | 0.024 | 0.677 | 1.476 |
| Family income | 0.020 | 0.019 | 0.771 | 1.297 |
| Origin (0 – foreign, 1 – domestic) | -0.208*** | 0.065 | 0.828 | 1.208 |
| Destination (0- Opatija, 1- Rijeka) | -0.121 | 0.073 | 0.739 | 1.353 |
| Trip organisation (0-individually, 1 – agency) | 0.223** | 0.087 | 0.757 | 1.320 |
| Length of stay | -0.033*** | 0.006 | 0.731 | 1.367 |
| Type of accommodation (0 – other, 1 – hotel) | 0.148** | 0.071 | 0.708 | 1.413 |
| Traveling group type | 0.047 | 0.029 | 0.524 | 1.908 |
| Traveling group size | -0.033 | 0.030 | 0.567 | 1.765 |
| Transportation mode (0 – other, 1 – car) | 0.107* | 0.064 | 0.831 | 1.203 |
| Frequency of visit | 0.003 | 0.003 | 0.674 | 1.483 |
| Environment | 0.118* | 0.057 | 0.707 | 1.414 |
| Diversity of facilities | 0.080 | 0.051 | 0.764 | 1.309 |
| Information and transport | -0.074 | 0.062 | 0.709 | 1.411 |
| Safety, quality and hospitality | -0.006 | 0.076 | 0.619 | 1.616 |
| Intention to return (0 – no; 1 – yes) | -0.056 | 0.129 | 0.516 | 1.938 |
| Intention to recommend (0 – no; 1 – yes) | 0.007 | 0.133 | 0.586 | 1.708 |

Note: $R^2 = 0.349$; $F(18, 187) = 5.574$; $p < 0.001$; Dependent variable: log daily tourist expenditure of light spenders per person; *Significant at 10%; **Significant at 5%; ***Significant at 1%.

quality and hospitality' dimension (mean satisfaction score is 4.13) followed by 'Environmental preservation and maintenance' (4.00) and 'Information and transportation' (3.76). Respondents are least satisfied with the diversity of facilities offered in the off-season (mean score is 3.49), indicating that destination management should allocate their resources to enhancing and enriching the facilities offered in the destination during off-season. This will lead to higher tourist satisfaction, which in return should ensure positive word of mouth and higher tourist loyalty as well as making Rijeka and the Opatija Riviera distinctive as a destination worth visiting, not just during the summer but in the off-season as well.

Results of the econometric models

Multivariate regression analyses were performed for the purpose of finding out what factors influence the off-season expenditure of light and heavy spenders. Thus, two models, one for light spenders and the other for heavy spenders, for the total daily tourist expenditure in the destination per person were separately estimated. It has to be noted that all variables regarding tourist expenditure are per person per night and logarithmically transformed as

Disegna and Osti (2016) suggested, for handling effectively non-linear relationships between the independent and dependent variables.

The results of the regression model that included total daily expenditure per person across the two groups (light and heavy spenders) are listed separately in Tables 5 and 6.

According to the results presented in Table 5, the model explains 34.9% of daily spending of light spenders in the destination ($R^2 = 0.349$; $F(18, 187) = 5.574$; $p < 0.001$). When looking at light spenders, it can be seen that out of 18 predictors, six turned out to be significant predictors of their total daily expenditure. The results indicate that those light spenders who visit the destination in late spring tend to spend more than those staying in the beginning of the year. When it comes to the origin of the respondents, the results indicate that domestic light spenders tend to spend less than foreign ones. This result is in accordance with those obtained by Kastenholz (2005). Thrane and Farstad (2012) also reported that the nationality variable affects tourism expenditures.

It was also found that those light spenders who organised their trip through a travel agency tended to spend more in comparison with those who individually organised their trip. This result could be explained by the fact that the respondents who used a travel agency to organise their trip paid for their travel package before coming to the destination, thus upon arrival they have a greater amount of money for spending (since the majority of the costs related to travel and stay have been covered in advance). These results are opposite to the findings of Chen and Chang (2012). As expected, a negative effect on daily expenditure of light spenders was found in the case of the length of stay. The respondents who stay longer in the destination tend to spend less per day per person in comparison with those whose stay is shorter. In support of this result, other studies have also demonstrated the negative relation of length of stay with daily tourist expenditure (Cannon and Ford, 2002; Disegna and Osti, 2016; Nicolau and Mas, 2005, Smolčić Jurdana and Soldić Frleta, 2017). Furthermore, it was found that the light spenders staying in the hotel tend to spend more than those staying in other types of accommodation. This result is in line with the existing literature and was found earlier by

Agarwal and Yochum (1999), Laesser and Crouch (2006), Smolčić Jurdana and Soldić Frleta (2017), Svensson *et al.* (2011), and García-Sánchez *et al.* (2013). In addition, it was also found that light spenders who arrived by car tend to spend more in the destination than those who arrived by other transportation modes. This result was also found earlier by Downward and Lumsdon, (2004), Kim *et al.* (2008), Svensson *et al.* (2011).

Out of the four dimensions of satisfaction, only the dimension relating to environmental preservation and maintenance has been proved to be a statistically significant predictor of daily expenditure of the light spenders. It was found that light spenders who are more satisfied with *the cleanliness of the destination, preserved environment, the beauty of nature and landscapes and equipment and maintenance of the beaches* tend to spend more in the destination in comparison with those who are less satisfied with this dimension (Table 5). This result is in line with the one reported by Disegna and Osti (2016) who found that satisfaction with the landscape positively affects the choice of tourists to spend on accommodation and transportation as well as the total amount of money spent for the whole

Table 6. Determinants of total daily expenditure in the destination, heavy spenders (N=149)

| Variables | Unstandardized Coefficients | | Collinearity Statistics | |
|--|-----------------------------|------------|-------------------------|-------|
| | B | Std. Error | Tolerance | VIF |
| (Constant) | 4.520 | 0.292 | | |
| Month | -0.035** | 0.017 | 0.853 | 1.173 |
| Age | 0.000 | 0.017 | 0.766 | 1.306 |
| Family income | 0.022* | 0.013 | 0.719 | 1.391 |
| Origin (0 – foreign, 1 – domestic) | -0.003 | 0.052 | 0.751 | 1.332 |
| Destination | -0.048 | 0.052 | 0.787 | 1.271 |
| Trip organisation (0-individually, 1 – agency) | -0.107** | 0.054 | 0.659 | 1.518 |
| Length of stay | -0.010 | 0.008 | 0.781 | 1.280 |
| Type of accommodation (0 – other, 1 – hotel) | 0.100* | 0.053 | 0.827 | 1.209 |
| Traveling group type | 0.015 | 0.020 | 0.534 | 1.874 |
| Traveling group size | -0.029 | 0.024 | 0.475 | 2.106 |
| Transportation mode (0 – other, 1 – car) | -0.046 | 0.054 | 0.654 | 1.530 |
| Frequency of visit | -0.002 | 0.003 | 0.852 | 1.173 |
| Environment | -0.057 | 0.044 | 0.628 | 1.593 |
| Diversity of facilities | 0.018 | 0.038 | 0.684 | 1.462 |
| Information and transport | 0.005 | 0.042 | 0.691 | 1.448 |
| Safety, quality and hospitality | 0.101* | 0.053 | 0.603 | 1.660 |
| Intention to return | -0.035 | 0.080 | 0.840 | 1.191 |
| Intention to recommend | 0.144 | 0.161 | 0.842 | 1.187 |

Note: $R^2 = 0.193$; $F(18, 128) = 1.700$; $p < 0.05$; Dependent variable: log daily tourist expenditure of heavy spenders per person; *Significant at 10%; **Significant at 5%; ***Significant at 1%.

trip. This result represents valuable information for destination managers that helps them to recognise the effect of a preserved and well maintained environment on tourist expenditure.

An interesting finding is that family income was not a significant factor of the expenditure of light spenders. A similar result was obtained by Akca *et al.* (2016) and Mustika *et al.* (2016). By way of contrast, the studies of Cannon and Ford (2002), Brida *et al.* (2013), Fredman (2008), García-Sánchez *et al.* (2013), Jang *et al.* (2004), Marrocu *et al.* (2015), Nicolau and Mas (2005), Smolčić Jurdana and Soldić Frleta (2017), Thrane (2016), Wang and Davidson (2010b) and many other authors have reported a positive relation between family income and tourist spending.

The model of heavy spenders has lower explanatory power since the variables in the model explain only 19.3% of the variance in heavy spenders' expenditures ($R^2= 0.193$; $F(18, 128) = 1.700$; $p < 0.05$). In addition, only five out of 18 variables have been proved to be statistically significant predictors of the heavy spenders' daily expenditure. Contrary to light spenders, heavy spenders, who visited this destination at the beginning of the year, spent more than those who were there in April or May. In addition, as far as heavy spenders are concerned, those who individually organised their trip tend to spend more than those who organised their trip through a travel agency. This result is in line with that obtained by Chen and Chang (2012). Furthermore, in terms of satisfaction dimensions, only the 'Safety, quality and hospitality' dimension turned out to be a statistically significant predictor of the daily expenditure of heavy spenders. This result indicates that those heavy spenders who are more satisfied with *quality of accommodation and catering facilities, cordiality of employees in tourism, presentation of cultural and historic heritage, friendly and hospitable residents* and *feeling of personal safety and security* tend to spend more per day than those heavy spenders who expressed lower satisfaction with this dimension.

The results of both models indicate that different predictors influence the daily off-season expenditure levels of light and heavy

spenders. Not only do the statistically significant predictors of tourist expenditure of light spenders and heavy spenders differ but so do the directions of relations with tourist expenditure in those predictors that have been shown to be statistically significant in both groups. This indicates that it is necessary to analyse expenditure determinants separately for light and heavy spenders in order to get better information on how to increase their expenditure in the destination.

Conclusion

One of the aims of this study was to determine significant differences, if any, between light and heavy spenders (staying in Rijeka and the Opatija Riviera in the off-season) in terms of their sociodemographic characteristics and characteristics of their stay and future intentions. Moreover, the study sought to explore the determinants of light and heavy spenders' off-season expenditure. Analysis of the influence of different variables on tourism expenditure in a destination presents an essential step for tourism decision makers in setting adequate planning strategies and stimulating an increase in visitors' expenditure at the destination (Disegna and Osti, 2016). In addition, identifying groups with different levels of expenditure and comparing the differences among those groups can be a useful method of segmentation for travel organizers (Jang *et al.*, 2002). The results indicate that light and heavy spenders significantly differed in terms of their age, monthly income, trip organisation, accommodation type, length of stay, and recommendation of the destination to others. In addition this study has shown that different variables influence the expenditure levels of light and heavy spenders, indicating that it is justified and necessary to separately investigate the determinants of those two groups' expenditures. Time (month) of visit, origin, type of trip organisation, length of stay, type of accommodation, and satisfaction with the environment turned out to be significant determinants of light spenders' off-season expenditure level. When it comes to heavy spenders, it was found that time of visit, family income level, type of trip organisation, type of accommodation as well as satisfaction with safety, quality and hospitality are significant predictors of their expenditure levels.

Moreover, the results of this research are in line with those of Disegna and Osti (2016), Chen and Chang (2012), Kim *et al.* (2010), Smolčić Jurdana and Soldić Frleta (2017), and Zhang *et al.* (2010) and confirm that satisfaction (although, with different attributes of the tourism offering) is a significant predictor of tourist expenditure for both light and heavy spenders. In conclusion, getting attitudes from tourists may help destination management to measure how well the destination is doing, identify what factors influence light and heavy spenders' expenditure in the destination, and develop tailor-made strategies to increase their expenditure levels.

Due to the limited available data, the findings of this study should not be over-generalized. Given the limited time and costs involved, this study was restricted to a specific geographic area, Rijeka and the Opatija Riviera. For generalization purposes, future research should include investigation and a comparison of tourism expenditure determinants among different destinations and at different times. In that way, it would be possible to investigate differences, if any, among the tourists visiting the destination in and off-season. Additionally, given that the sample analysed in this study represents 0.18% of total target population, future research should be carried on a higher number of respondents. Nevertheless, the study results represent a guideline for destination management and marketers since they are usually provided with information on seasonal tourism demand characteristics. Moreover, apart from the information on the determinants of tourist expenditure, the attitudes of the tourists visiting the destination in off-season presented in this study revealed that they are least satisfied with the diversity of facilities offered in the destination. Hence, destination managers need to recognize this issue in order to ensure higher future satisfaction of tourists visiting the destination in the off-season by improving the aspects of tourism offering that perform poorly. This should lead to higher tourist satisfaction which affects the likelihood of their returning to the destination again (in or off-season) or recommending it to others (McDowall, 2010). Furthermore, the results of this study on determinants of off-season tourist expenditure

are expected to provide a valuable addition to the body of literature, given the fact that some rarely used predictors were tested in the expenditure models of this study. Hence, the results of this study imply that further research should take into account the effects of these novel variables reported as well as introducing other unused but potential micro-level expenditure predictors.

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