Profiling bicycle tourists : a case of Croatia

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PROFILING BICYCLE TOURISTS: A CASE OF CROATIA

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Abstract
Purpose – The purpose of the primary research is to gather information about the behaviour of bicycle tourism demand. Primarily by studying domestic bicycle tourists, the research results were expected to provide valuable market parameters, comparable with the determinants of previous relevant studies.
Design and Methodology – Research was carried out by surveying different segments of bicyclists, recognized in earlier conceptual contributions. Electronic data collection techniques were applied. The online questionnaire was distributed to chosen respondents in the form of the link included in a personal message on a certain social network. A personal approach ensured a high response rate. The nature of research design resulted in a descriptive research, although some of its characteristics could be considered as exploratory.
Findings – This paper is the first attempt to study the Croatian segment of the bicycle tourism demand. As far as the attributes common to both national and international research are concerned, it is possible to argue the similarities and differences of demand profiles.
Value – Until there is a uniform approach to monitoring the phenomenon at the European level, the profiling of demand in bicycle tourism makes it possible to compare the specific findings with current trends. This research applies a somewhat different perspective than the existing ones – enabling more insight into the cycling-related behaviour in the home area and on vacation. As part of the international demand for bicycle tourism, knowledge about the behaviour of one particular national market contributes to the general state of the research.
Keywords bicycle tourists; bicycle tourism market; bicycle tourism demand; bicycle tourist profile

INTRODUCTION

Bicycle tourism is a segment of sports tourism that is steadily gaining in popularity, and it is being widely recognized in both academic contributions (Downward, Lumsdon, and Weston al. 2009; Faulks, Ritchie, and Fluker 2006; Lamont 2009; Mrnjavac and Kovačić 2012; Weed et al. 2014) and policy makers (for example, European Parliament, 2009) or advocacy organizations (for example, European Cyclists' Federation, http://www.ecf.com/advocary/cycling-tourism/). Methodological and disciplinary differences in research have generated differences in defining and conceptualising bicycle tourism. Cox (2012, 27) claims that the concept of bicycle tourism 'transgresses the boundaries of academic disciplines', making it possible to interpret research results according to the orientation of the researchers. The problem in defining bicycle tourism lies less in the phenomenon's scope and more in its lack of

constraints. Hence the need to draw parallels between existing studies and profile bicycle tourists. Bicycle tourism should be viewed as the synergy between people, the destination, and the activity of cycling, as it is a construct of leisure and sport elements, of passive and active realization, depending on its use.

Estimations have been made of the volume and value of EU bicycle tourism, which is not equally developed in all Member States. In support of the huge economic potential of bicycle tourism, it is estimated that bicycle tourism generates annually 2.8 billion cycling tourist trips and €54 billion (European Parliament 2009, 29). Despite the economic crisis in Europe in recent years, bicycle tourism accounted for 20 million overnights. The €9 billion that the overnight stays resulted in makes one-fifth of total bicycle tourism-generated revenue (Mintel 2013).

In accordance with the reported focus of bicycle tourists on domestic markets (Mintel, 2013; Simonsen et al. 1998), this paper investigates the market of Croatian bicycle tourists. Although the Strategy of Tourism Development to 2020 defines cycling as a national tourism product, the market remains unexplored and underdeveloped. Until there are uniform statistical indicators established to quantify the volume and value of the European bicycle tourism market, the profiling of domestic demand makes it possible to compare domestic market with current trends.

The paper is divided into three parts. It begins by looking at the theoretical background of research. Bicycle tourism is viewed through the spectrum of past studies, relevant from the aspect of profiling bicycle tourists and formulating a general profile of the bicycle tourist. The second part presents details concerning the study design and implementation, together with research limitations. Part three, *Results and discussion*, highlights the results of primary research, brought together in the profile of the Croatian bicycle tourist. The *Discussion* compares the two resulting profiles.

THEORETICAL BACKGROUND

Bicycle tourism market research

Lamont (2014, 2) argues that bicycle tourism research is related to two broad streams that are associated with this phenomenon: the socio-economic impacts of bicycle tourism, and management, planning and policy. Bicycle tourism is seen as positive in the context of primarily economic benefits to the local community (Cope et al. 2003; European Parliament 2009; Faulks, Ritchie, and Fluker 2006; Lumsdon 1996; Lumsdon, Downward, and Cope 2004; Mintel 2007; Mintel 2009; Mintel 2013; Ritchie, Tkaczynski, and Faulks 2010; Weed et al. 2014; Zovko 2013).

This layered niche of the tourist market is inextricably linked with mobility and social behaviour. Through the synergy of cycling and tourism, daily activity generates new experiences thanks to a change in setting, in which the bicycle has both a tourism-related and transportation function, and, as Cox (2012, 36) argues, while enabling or enriching the activity .

Numerous definitions of bicycle tourism have circulated through industry and academic research, particularly during the last decade of monitoring the development of this phenomenon. Beyond doubt, the approach to research is changing, making it impossible to embrace one comprehensive and generally applicable definition. A look at the existing definitions suggests several critical points:

(1) the use of different parameters in research,

(2) a heterogeneous demand market, and the scope and diversity of activities which can be classified as cycling tourism activities,

(3) limited recognition of cycling tourism as a tourism market segment at the destination management level, and

(4) the inclusion or exclusion of market segments (primarily day-trippers and competitive cyclists).

Appropriate conceptualisation is a precondition to research applicable to actual conditions. Rather than list definitions, this paper embraces Lamont's parameters of bicycle tourism (2009, 11). Through definitional discussion and by applying a technical perspective, Lamont (2009, 20) characterises bicycle tourists based on their participation in cycling activities, without excluding the marginal groups of either day trippers or competitive cyclists, while also acknowledging the passive part of the market. Regardless of their scope or the constraints, most definitions of bicycle tourism (for example, European Parliament 2009; Lumsdon 1996; Ritchie 1998) acknowledge cycling can be an integral part of the tourist experience.

Simonsen and Jorgensen (1996 as cited in Ritchie 1998, 568) characterise bicycle tourists as a homogenous group, the members of which are motivated by the same activity. However, the differences between segments, within the extreme values of definitions where most of the demand can be found as well as the motivations of individual segments, should not be overlooked, as they point to a markedly heterogenous market. Hence, many authors resort to specifying the scope of the definition of bicycle tourism by identifying diverse market segments.

Although it is not considered a perfect analytical instrument (Bull 2006, 262-263), the Sustrans typology (1999) has, nonetheless, been widely accepted. It differentiates the segments based on the role of cycling in travel. A study by the European Parliament (2009) matches the Sustrans (1999) typology but it also takes into consideration *recreational resident cyclists* and broadens the category of *competitive riders* (Lancaster 2013) in relation to most of the existing typologies.

As well as Lumsdon (1996, 27), Marcussen (2009, 19) distinguishes market segments by applying the overnights criterion, also taking into consideration the selection of one or more destinations as criteria for distinguishing between the behaviour of stationary and nomadic bicycle tourists, and touring cyclists. Ritchie et al. (2010) cluster bicycle tourists, and support the application of enduring involvement in bicycle tourism research, to better understand the behaviour of bicycle tourists. Mintel (2009) lists a number of segments, confirming market heterogeneity and the range of available differentiation criteria, while Weed et al. (2014) present a classification of cycling market segments that is more sophisticated than previous ones, mostly due to

introducing the distance-to-route criteria (the length of the access trip while in the area, and the distance travelled from home to use the route) to meta-analyse the potential impact of cycling tourism.

The hotel industry has also recognized the significance of the bicycle tourism market. Bike hotel associations (for example, *MountainBike Holidays*, *RoadBike Holidays*, *Italy Bike Hotels*) either act in a more general manner, according to basic market segments (such as road cycling or mountainbike) or they carry out an in-depth sub-segmentation of demand. Because of the changing behavioural patterns of bicycle tourists, no single typology can encompass the entire demand market.

Profiling bicycle tourists

Profiling bicycle tourists is aimed at a better understanding of their behaviour and the design of an appropriate product. However, socio-economic market characteristics are often abstracted, neglecting both the behavioural and the sociological determinants of demand. The obvious 'lack of research into the heterogeneity of this market' (Ritchie et al. 2010, 409) is reflected in the suboptimal level of agility and adaptability of the offering.

Several past, relevant bicycle tourism studies (European Parliament 2009; Faulks et al. 2006; Fraietta 2004; Meschik 2012; Ritchie 1998; Simonsen et al. 1998), were selected to provide context to the primary research of this paper (overview in Appendix 1). Based on these studies, a general profile of bicycle tourists was made (Table 1) according to the determinants confirmed in at least two of the addressed studies. The profile is divided into socio-economic attributes and tourist behaviour patterns.

According to the socio-economic attributes, bicycle tourists are mostly men of working age. The segment of employed is followed by students and pensioners in changing shares. In some cases, the job held testifies to secondary school education at the least. With the exception of Meschik (2012) and Fraietta (2004), the studies neither address the family status, nor do they provide data on personal or household income (with the exception of Fraietta 2004). Nevertheless, certain conclusions can be drawn based on the tourist behaviour pattern (for example, group composition, vacation duration, daily spending).

As to the pattern of behaviour, most studies have confirmed the activity of cycling to be the motivation of bicycle tourists, while some other factors, such as exercise, health, natural surroundings, and other also recur. Previous experience (Ritchie 1998, 572, Table 4; Simonsen et al. 1998, 83) and focus on the 'immediate' environment also determine the behaviour of bicycle tourists. The marked seasonality in taking the main holiday is mitigated by the cited tendency towards taking weekend trips and several shorter holidays throughout the year. In contrast to bicycle tourists, the day-tripper market segment shows a more uniform distribution of activities (European Parliament 2009, 30). The market demonstrates a domestic focus but sometimes it also focuses on neighbouring countries.

Table 1: **General profile of bicycle tourist (cross-section of studies)**

Socio-economic attributes
• male,
• of working age,
• min. secondary education,
• employed,
• middle class
Pattern of tourist behaviour
• activity (cycling)-driven; focused on experience,
• motivation factors for cycle holidays: sport and exercise, health, being in the open/in natural surroundings, leisure and relaxation, enjoyment and socializing,
• experienced in cycling tourism,
• travels in pairs, with family/in smaller group or alone,
• cycling holiday is strongly marked by seasonality (summertime),
• domestic focus,
• spends mostly on accommodation, food & beverages, shopping and local transport
• variety of accommodation preferences
• eating and drinking along the route, often organised independently
• shops locally
• length of stay: longer than 5 days
• time spent cycling ranges from 5 to 7 hours/day or 40 to 50 kilometres on average
• transport choices: favourable modal split in comparison with tourists in general – more inclined to trains, less to cars and airplanes
• uses own bicycle
• inclined to the type of bicycles that enable movement on different surfaces
• independent traveller
• information-dependent
• low destination loyalty

Bicycle tourists tend to travel in pairs, with family/in smaller groups or alone. A positive correlation has been proven between group size, together with income, and bicycle tourist spending (Downward et al. 2009), the length of stay in an area, and the use of services of local providers due to limited luggage capacity (Mintel 2013) and the need to travel light (Fraietta 2004). Regardless of the recorded amount of spending, bicycle tourists mostly spend on accommodation and food and beverages, and then on other activities within the destination. Reported average daily expenditure of bicycle tourists ranges from 53€ (of which accommodation accounts for 40%; food and beverages, 30%; and shopping, local transport and other activities, 30% (European Parliament 2009, 36)) to 65.7€ (Meschik 2012, 52) or even as high as 125$/day (2000$/16 days (Roy Morgan 2005 as cited in Faulks et al. 2006, 17)). Although day-trippers spend far less (16€ (European Parliament 2009, 36) up to 37.3€/day (Meschik 2012, 52)), their spending is important to catering service providers, because food and beverages claim 60% to 75% of spending.

The choice of accommodation has a large effect on daily and total spending, but generalisation is rather difficult because data points to differences in bicycle tourist preferences and the share of various types of accommodation facilities. The preferences range from the simplest, budget options to facilities providing more complex offerings. Regardless their choice, bicycle tourists primarily place importance on cycling-related facilities and services (Fraietta 2004; Mrnjavac, Kovačić, and Topolšek 2014, 178). Similar to the use of accommodation services, the use of hospitality services depends on the local offering. The important thing is that service providers are not located more than two kilometres off the route (Regional Tourism Organization 8 2011, 3-8).

While the length of stay varies significantly between different segments of the bicycle tourism market and between destination areas, holidays longer than five days prevail in all the studies considered. The length of the holiday does not coincide with the time spent cycling. Time spent cycling daily is confirmed to depend on the quality of the provided route (Downward and Lumsdon 2001), and in some cases it is researched by measuring the distances covered (Meschik 2012, 50; Ritchie 1998, 572; Simonsen et al. 1998, 89-90).

Bicycle tourists often combine travelling by bicycle with travelling by other means of transport, depending on the transportation system of the area, as well as personal preferences. The choice of bicycle type varies and there is an obvious preference for bicycle types that allow riding over a variety of surfaces. In more than 80% of cases, bicyclists own the bikes they use. This confirms that cycling is not only an activity but also a way of getting around. Not surprisingly, the bicycle rental offering is mostly unimportant to bicycle tourists.

The mobility of bicycle tourists is often unpredictable, and is characterised by a multiple stop circuit pattern and the possibility of changing destinations in the course of holidays. Travel decisions of bicycle tourists are commonly considered more sustainable than the decisions of tourists in general, but the passenger car is the most commonly used transportation means for getting to the start of a bicycle ride (route or destination), while public means of transport are used in varying ratios. In the context of environmental impact, day-trippers are the most benign, considering that 65% travel by bicycle to the beginning of the route (European Parliament 2009, 33, Figure 4).

Bicycle tourists do not demonstrate a high level of destination loyalty (Simonsen et al. 1998, 83; Marcussen 2009, 30) in terms of a particular town because of spatial constraints that do not match their unpredictable mobility. However, when the destination is viewed as a region or a cycling corridor, in keeping with current trends, that relation can be changed.

Apart from the determinants confirmed in two or more of the studies reviewed, there are also other determinants of bicycle tourist behaviour that are important but have been poorly researched. For example, the bicycle tourism market '…primarly involves independent travel' (Mintel 2013) and only 24% of bicycle tourists use a travel agent as a booking method (Faulks et al. 2006, 16, Table 7), making the availability of information (user friendly, real time, unified, and with images, area maps and specific suggestions) vital (Mrnjavac et al. 2014). With regard to how tourist trips are

organized, 44% of bicycle tourists prefer self-guided tours while 56% use the services of organized guided bike tours (Mintel 2009). In addition, only 10% of bicycle tourists are inclined towards organized package tours (Mintel 2013).

METHODOLOGY

Study design and implementation

The purpose of the primary research was to gather information about Croatian bicycle tourists. The research results were expected to provide insight into the background, attitudes and behaviour of the targeted market. The goal was to obtain valuable market parameters, because bicycle tourism in Croatia is not being systematically researched and the nation's bicycle tourists are unknown to the market. The research approach is prevailingly descriptive, but some of its design elements could also be considered exploratory.

In line with the research nature, a survey was conducted to gather data. Communication with the respondents was virtual/online. A non-public questionnaire was designed in Google Documents, after initial testing in the field on 25 randomly chosen bicyclists and some subsequent modifications. Research was conducted 12 – 31 May 2014 using a structured questionnaire, and the respondents were made aware of its objectives before participating. The research period is in line with the seasonal character of the activity, when cyclists engage more in cycling and when there are more organized events. It is also the time of the year when holiday-related decisions have already been made.

On 13 May 2014 a personal message was sent to the chosen respondents via social network and the online questionnaire was distributed. The respondents were encouraged to participate in the research by simply following the attached link. It was proved that using electronic data collection techniques can, in many cases, offer multiple benefits and represent a viable alternative to human contact (Meho 2006). The tool used was confirmed more efficient than sending emails, sending questionnaires by post or on-site interviewing during some cycling event in the test period. An individual approach to each of the chosen respondents ensured a high response rate. Boyer, Olson, Calantone, and Jackson (2002) confirm that electronic surveys have fewer missing responses in comparison with printed surveys.

The framework for sample selection consists of theoretically confirmed presumptions about bicycle tourism segments from the existing body of knowledge. The sample of Croatian bicycle tourists was chosen based on the judgement of the researcher and is therefore characterized as deliberate (Marušić and Prebežac 2004, 175). The sample group was formed based on the activity involvement criteria, focused on individuals recognized for their participation in cycling (recreational, leisure, sportive, and competitive). The market size (the population involved in cycling in one of the participation forms, as identified) was not known, making it impossible to argue that the chosen sample size is statistically significant. From the 206 initially contacted

respondents, 199 filled-in questionnaires were gathered and considered to be valid (N=199).

The questionnaire header provided information about the background of research and the form was automatically structured to guide the respondent through 25 questions, encouraging one or multiple answers. The questionnaire consisted of four parts. The section aimed at the demographic parameters of the respondents is limited to the most general information while these questions were partially or completely neglected during questionnaire testing. Behavioural patterns were investigated through the remaining three sections of the form (one on cycling background or previous involvement in cycling, the other on holiday behaviour in connection to cycling, and the last on cycling-specific preferences with regard to the tourist destination and specialized service providers).

The use of the chosen electronic data collection tool enabled automatic data storage, optimized the duration of respondent participation in the process and supported the subsequent research stages. The electronic data collection technique proved more flexible to code. Each response was time and date stamped, uninvited respondent participation was made impossible and the questionnaire was no longer available after 31 May. The information gathered was filtered by using the appropriate criteria. Conclusions were formed based on statistic data analyses.

Research limitations

The limitations of primary research are linked to the intentional choice of units out of the basic group. Such approach is justified by the impossibility of establishing the size of the basic group (the Croatian market) or the sizes of each sub-group of bicyclists. The selection of respondents acknowledges their previous cycling-related behaviour, known to the researcher. Nonetheless, the size of the selected sample limits the findings to indicative conclusions.

The studies consulted differ in scope and focus, and comparison resulted in limited matching of determinants (in two to a maximum of three studies). Hence it is considered justified that the questionnaire was designed based on the practical experience of the author in this field. By keeping the questionnaire short to increase the possibility of a high response rate, the direction of the study was determined by certain new parameters because of which the resulting profile determinants are not always identical to those in the general profile.

Data collection via online questionnaire is limited due to the absence of the interviewer. Therefore, more detailed answers cannot be encouraged, nor it is possible to further clarify certain issues. Despite that, it is considered to have more advantages than disadvantages.

RESULTS AND DISCUSSION

Croatian bicycle tourist profile

Although a member of the EU where bicycle tourism is a growing market segment, Croatia lags behind current trends. A systematic approach to developing cycling is still in its early stages. The issue of cycling as an alternative form of mobility and a sustainable form of tourism has only been addressed in the latest traffic strategy (Vlada Republike Hrvatske, 2014) and tourism strategy (Ministarstvo turizma Republike Hrvatske 2013) and no adequate research of the domestic demand for bicycle tourism has yet been conducted to the best of the author's knowledge.

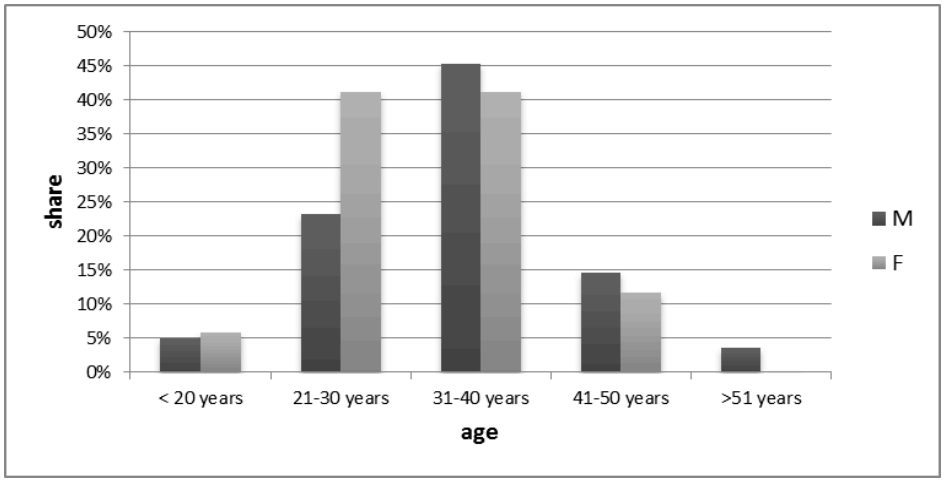
Until the bodies responsible for the Croatian tourism development recognise the necessity of statistically monitoring specific forms of special-interest tourism rather than summarily keeping track of tourist arrivals and overnights, the profiling of Croatian bicycle tourists can make a significant contribution to understanding bicycle tourism.

The primary research conducted covers certain demographic and socio-economic attributes of heterogeneous demand and focuses on the determinants of tourist behaviour.

Demographics, socio-economic factors and cycling background of Croatian bicycle tourists

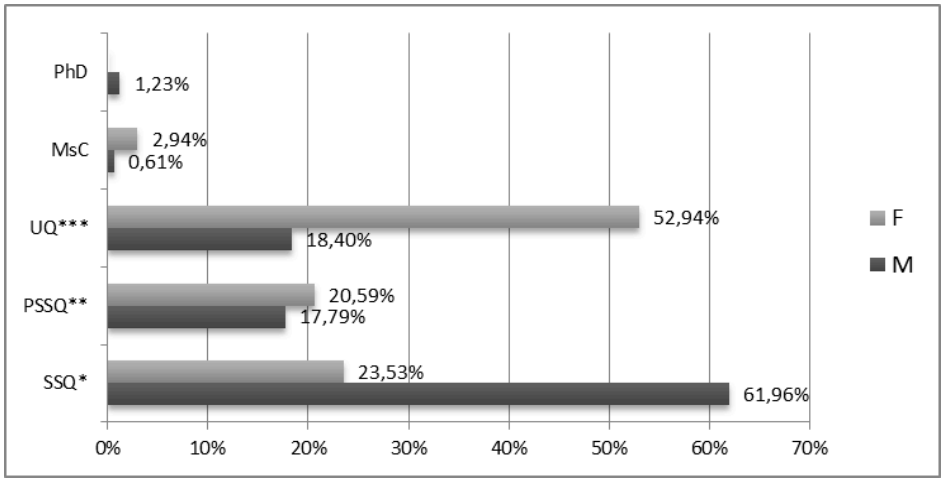
By gender, men (83%) prevail among the respondents. The 31–40 age group prevails in the age structure (Figure 1), followed by the 21–30 age group. The average age is 33.92 years.

Figure 1: **Age structure of respondents**



Most of the respondents have secondary school qualifications (55.28%), while 42.21% hold a university degree, mostly at the master's degree level. The share of MScs and PhDs is negligible. The educational structure of respondents by sex, illustrated in Figure 2, indicates that female respondents have a higher level of education. Male respondents prevail in the secondary school education category.

Figure 2: **Structure of respondents by educational background and gender**



Note: * secondary school qualifications; ** 2-year post-secondary school qualifications; *** university qualifications

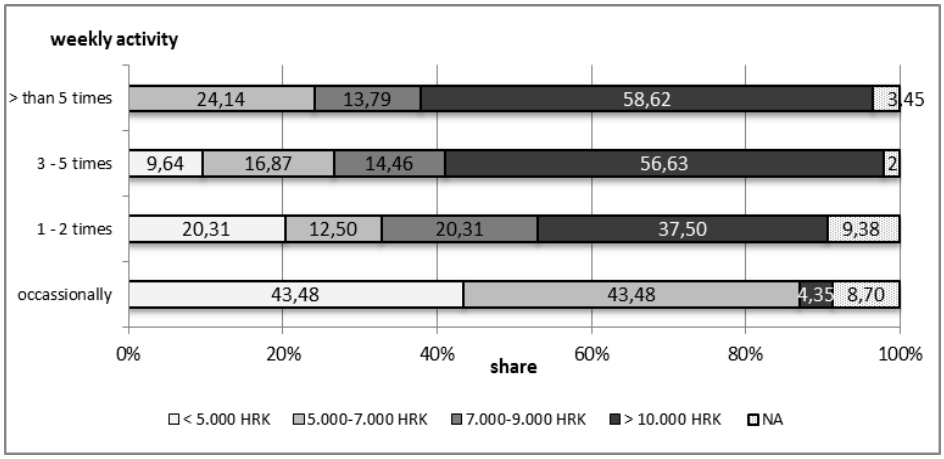
Other general socio-demographic and socio-economic profile determinants were not investigated, as explained in *Study design and implementation*. The general profile is supplemented by the determinants of behaviour in the home area, collected in the second part of the questionnaire, dealing with holiday behaviour in connection to cycling.

Most of the respondents cycle regularly (88.44%) and only 11.56% participate in the activity occasionally, rather than on a weekly basis. The distribution of respondents in groups according to cycling frequency points to the largest concentration in the group that cycles three to five times a week (41.71%). Half of the respondents (50.75%) have been actively engaged in the activity for more than five years, some even for several decades. The next group has been involved in cycling for a shorter time, three to five years (32.66%). *It follows that cycling is a multi-year interest to approximately 80% of surveyed Croats.*

Owning a bicycle is confirmation of a certain level of dedication to cycling. Fully 99.5% of respondents own a bicycle and mountain bike is the choice of most respondents (72.22%). Almost one-fourth of respondents possess two bicycles – a road bike and a mountain bike (23.74%).

Although annual income was not investigated directly, conclusions can be drawn about the purchasing power of respondents based on the price of the bicycle they own. According to this criterion, more than 40% of respondents are willing to pay about 1.300€ (10.000 HRK) and more, or almost two average salaries in Croatia (Croatian Bureau of Statistics 2014). By correlating weekly frequency of cycling and the purchasing power of respondents, certain conclusions can be drawn from Figure 3.

Figure 3: **Respondent profile by weekly cycling frequency and purchasing power**



The purchasing of the cheapest bicycles diminishes as the frequency of weekly cycling increases. Obviously, people who engage in cycling more than five times a week are not interested in bargain bicycles. Of the respondents who engage in cycling occasionally, there are two groups accounting for identical percentages: one group demonstrates a propensity to spend up to approximately 650€ (5.000 HRK) for a bike and the other, up to approximately 900€ (7.000 HRK). The share of occasional cyclists willing to purchase the more expensive bicycles is very low. Bicyclists whose cycling frequency exceeds three times a week are predominantly inclined to buying the most expensive bikes. Considering that they make up the major part of respondents in the overall structure of respondents, the strong tendency of the three to five time weekly cycling group to purchase the most expensive bicycles should be noted, as it suggests good purchasing power.

To summarize the above stated, the profile of the Croatian bicycle tourist is presented in Table 2. The profile determinants are divided in two groups.

Table 2: **Profile of the Croatian bicycle tourist**

Socio-economic attributes
• male (83%)
• average age 34 years
• secondary education and higher
• cycles regularly on a weekly basis, 3 to 5 times per week
• cycling is a long term interest
• owns costlier bicycle, preferably MTB
• good purchasing power
Pattern of tourist behaviour
• length of stay: longer than 5 days
• uses own bicycle during holidays
• cycling-related services and facilities important determinant of destination choice
• considers information availability a key determinant of successful and appealing cycling destination
• combine activities that provide the social aspect of cycling, and practices individual cycling during holidays
• criteria of accommodation choice: 1. basic service, 2. cost/price
• accommodation type: private accommodation (rooms, apartments)
• inclined towards specialized bike hotel and its cycling-specific facilities

The above table also presents a pattern of tourist behaviour, discussed in the following section.

Pattern of tourist behaviour of Croatian bicycle tourists

Slightly less than 11% of respondents definitely do not use bicycles on their main holiday, while 48% always take their bicycles with them on vacation and 31%, sometimes. Only 4% reported travelling by bicycle during holidays. More than half of the respondents (53.81%) take holidays lasting longer than seven days, and 23.86% of respondents take a five-to-seven day holiday on average. This means the majority of demand takes holidays longer than five days. When deciding on a destination, bicycle facilities and services are always crucial for 35.7% of respondents, sometimes crucial for 31.2%, and are not a primary selection criterion for 33.1% of respondents.

After excluding respondents who do not use their own bicycles during holidays, conclusions about group composition were drawn from the remaining sample. Most of the people who always use their bicycle on holiday are inclined to combine independent riding, riding with others, and programmes organized in the destination (44.21%), and only 22.11% prefer to ride independently. Table 3 presents a cross-section profile by type of bicycle usage on holidays relative to the activity's social component.

Table 3: **Type of bicycle usage relative to form of activity in the destination**

	rides alone	**rides in a group**	**organized rides**	**combination**
travels by bicycle	25.00%	12.5%	12.5%	50.00%
always uses own bicycle on holidays	22.11%	33.68%	0	44.21%
sometimes uses own bicycle on holidays	24.59%	37.70%	0	37.70%
rents a bicycle	7.69%	53.85%	15.38%	23.08%

Most of the people who sometimes use their own bicycles on holidays are also exceptionally prone to socializing (a total of 75.4%), while one-fourth of them prefer to ride alone. Of the people who rent bicycles on site, more than half prefer activities in a group.

When choosing an accommodation facility, the prevailing criterion for 48.74% of respondents is the basic offering included in the prices, and for 43.22% it is the price. This research addresses the previously unexplored inclination of bicycle tourists towards specialised hotels and destinations within a narrowly developed offering. Results show that most respondents (88%) would choose the services of bike hotels. Small percentages of these respondents are exclusive in their choice towards either Croatian or bike hotels abroad. According to respondents, the *key infrastructure qualities* of a bike hotel are (in descending order): indoor bicycle parking or storage facilities (86%), professional help with bicycle repair and maintenance (81%), cycling clothes laundry service (70%), professional bike guide services (66%), bicycle rental service (65%), short distance transfer (54%), as well as meals adapted to cyclists' needs (49%) and outdoor bicycle parking facilities (39%). Interestingly, a large portion of respondents considers that bike hotels should provide bike rental services. Practice has shown, however, that rental bicycles are most often needed for accompanying persons.

Cycling related facilities and services also proved to be an important determinant of destination selection. As in the previous question, respondents were allowed to identify more than one characteristic of a 'cycling' destination. Croatian bicyclists consider that a cycling destination is characterised by (in descending order): information availability about the cycling-related offering (81%), accessibility of tourist attractions by bicycle (72%), infrastructural suitability (68%), cycling-specific offering (55%), organized cycling events (52%), and public transport integrated with bicycle transport (41%).

Obviously, Croatian demand shows similarities with the existing profiles of bicycle tourists. A comparison is given in the following sections – *Discussion* and *Conclusion*.

Discussion

In comparison with the presented profile, Croatian bicyle tourists are predominantly male and account for a higher share than in studies by Faulks et al. (2006), Meschik (2012) or Ritchie (1998). Groups of the working-age population, younger than in the groups in studies by the European Parliament (2009), Fraietta (2004) or Simonsen et al. (1998), prevail in Croatian demand. The largest groups are the 31–40 age group and the 21–30 age group, accounting for 44.2% and 26.13% of respondents, respectively. Croatian bicycle tourists match the educational levels of bicycle tourists in general, especially where lower educational levels are concerned (predominately secondary school level). Employment in Croatian bicyclists was not investigated.

The length of stay coincides in both profiles. The Croatian profile also matches the general profile with regard to the use of own bicycles on holidays, the importance of information before and during the trip, and the preferred type of bicycle. Although this last item was explored within the framework of the socio-economic profile of Croatian demand, it is clear that the prevailing share of mountain bikes owned by bicycle tourists makes it possible to draw parallels with the general profile regarding the propensity to use types of bikes that enable travelling over a variety of surfaces. Although the motivations of Croatian bicycle tourists were not studied, given the outdoor character of the activity, one could offer an interpretation that they match the general profile that shows cyclists as activity-driven and focused on experience.

While the general market shows a diverse variety of accommodation preferences, Croatian bicycle tourists can be classified in the part of the spectrum that prefers private accommodation (holiday appartments or rooms), with basic services and price being the most important criteria in choosing accommodation. Croatian cyclists also demonstrate a preference for specialised accommodation facilities, primarily hotels, which is an aspect that was not explored in earlier studies. When choosing an accommodation facility, they tend to focus on cycling-specific elements of the offering, as was also observed in certain past studies, for example, Fraietta (2004).

In studying latent Croatian bicycle tourism demand, the focus was placed on specialised providers of bicycle tourism products – hotels and destinations. The focus on these two aspects of the offering is determined by the complexity of their product, and thus the possibility of satisfying the entire range of bicycle tourist needs by providing a single product. For most of the Croatian market cycling-specific facilities and services are always taken into account in decision making.

CONCLUSION

In the context of the presented theoretical background of bicycle tourism research and bicycle tourist profiles, one could argue the fact that Croatian latent bicycle tourism demand shows the same key characteristic as the rest of the studied markets – committed involvement in cycling – in the home area and in everyday life, as well as during holidays.

The studied sample group matches the general profile in the demographic attributes of gender, age and education, although the shares of these attributes vary between the two profiles. In addition, the data from analyses of minimal length of stay, information dependence and preference towards using one's own bicycle during holidays demonstrates that behavioural patterns of the sample group are also in line with the general profile.

Nevertheless, unlike in previous research, the profile of Croatian bicycle tourists was more focused on the bicycle tourists' background, implying the integration of this special interest into everyday life as the basis of its transformation into tourism behaviour. Accordingly, as part of the socio-economic profiling, Croatian bicycle tourism demand was determined by the frequency of cycling on a weekly basis, the duration of interest in cycling, the preferred type of bicycle and the willingness to pay for it.

The contribution of this research is also supported by its focus on cycling-specific service providers, previously not addressed in such a context. Research results imply a great tendency towards specialized accommodation facilities ('bike hotels'). The elements of their offerings are identified as the criteria of their appeal to Croatian bicycle tourists – ranking the facilities for safe bicycle storage and maintenance as being the most important. Cycling-oriented tourist destinations are also perceived through the components of their offering. When making travel-related decisions, bicycle tourists consider cycling-related information availability to be crucial in attracting them to a destination.

While this research did not include some market characteristics of bicycle tourism from previous studies, it did focus on some neglected aspects of bicycle tourists' behavioural patterns. The current state of research in the field allows for an interdisciplinary approach, as well as for subjectiveness in the researcher's interpretation of the bicycle tourism concept. It is thus considered that the purpose of the presented research has been fulfilled, as it has made the first attempt in capturing Croatian bicycle tourism market determinants, while at the same time introducing some new aspects of market research and suggesting new directions for the future research of bicycle tourism. This primarily refers to cycling-specific service providers and their importance in changing demand behaviour.

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APPENDICES

Appendix 1: **Parameters of relevant studies selected to provide context to the primary research**

General socio-demographic/socio-economic parameters	Patterns of tourism behaviour
European Parliament (2009)	
• Average age: 45–55 years, • Gender: 60% male, 40% female • Education level: secondary education and significant minority university education and professional status • Household income: €24,000€–36,000 per year	• The focus of the market is domestic • Motivation: the pleasure of activity itself, sports, nature/landscape, leisure, health etc. • Key infrastructure qualities: low on traffic/separation, consistant and clear signage, route variety, surface quality, hospitality services • Patterns of behaviour: - seasonality: 79% of trips in summer months (from May until the end of August) - length of stay: 30% short stays (2-4 days), 30% 5-7 days, 40% more than 8 days (32% 8-14 days; 8% more than 15 days) - cycling/day: majority (65%) more than 7 hours - accommodation: 45% inn/B&B/guest house, 40% hotels, 15% camping, 11% private accommodation/relatives, 7% youth hostel - bike hire: 7% for holidays, 3% for day trips • Group composition: 20% single, 50% in two, 20% in small groups 3-5 people • transport to the start of cycle route/destination: car, train, and bicycle modal split differs • average expenditure: cycle tourists 53.36 €/day (40% on accommodation, 30% on food and beverage, 30% shopping, local transport and other activities); day excursionists 16€/day (60-75% on food & beverages)
Faulks, Ritchie, and Fluker (2006)	
• Male 58% • Age: 32% 14-24 years, 27% 25-34 years	• Travelling intrastate • Average holiday: 16 days • Travel party: 28% travel with family, 22% in two, 18% alone • Accommodation: 45 % friends and family, 19% camping • Feeder mode/other mode of transport: 51% car/4WD, 38% aeroplane, 32% ferry/boat • Information sources: 29% previous visit, 24% friends and family • Destinations: 55% other Australian states, 20% overseas • Booking method: 24% travel agent, 12% Internet

General socio-demographic/socio-economic parameters	Patterns of tourism behaviour
	• Holiday type preferences: 30% active outdoor pursuits, 23% family holiday, 19% a very active, physically challenging holiday • Expenditure: 27% more than 2000$
Fraietta (2004)	
• Professional, middle ranking and senior white collar worker • Annual income: 23% under $40000, 12% $40000-60000, 47% $60000-80000, 18% over $80000 • Live alone or with one other person (70% have no children living at home) • Age: 17% under 30, 44% 30 to 45, 33% 46 to 55, 6% 56 to 65	• Use all types of accommodation (from camping to 5-star hotels) – prefer B&B/Inns; accommodation quality determined by cycle-related key features (safe place to leave bikes, floor access to registration and rooms, washing facilities) • Rely on cafes and restaurants along the route for supplies; because of the need to travel light, will shop at local businesses frequently (purchasing equipment, clothes, food, souvenirs and maps) • Average length of stay: 2 nights for short trips, 7.1 nights for holidays (4.4 nights in total) • Prefer self-guided tours for tours shorter than 3 days • Will travel long distances to use infrastructure or take part in bike tours longer than 4 days
Meschik (2012)	
• Men 54%, women 46% • 70% married, 24% single, 6% widowed/divorced • 56,5% secondary education, 35% university master degree, 8,5% primary education • 60% full-time employment, 12% part-time, 12% retired, rest in school/ managing household/ unemployed	• 88,7% cycle holidays/holiday cycling • Average duration of a cycle tour: 6,4 days (7,1 days when excluding day trips) • Feeder mode of transport: 61% car (13% of which passengers), 27% train • Mean distance: 50 km/day • Group: 51% travels with one partner, 30% larger group, 16% family, 3% alone • Information: 52% fiends and acquaintances, 16% newspaper/travel magazines, 7% travel guide, 12% other • Bicycle: 84% own • Type of bicycle: city/trekking 75%, mountain bike 17% • Local services very important • Daily spending: 65,7 euro cycle tourists, 37,3 euro day trips
Ritchie (1998)	
• 66.7% male, 32.7% female • 70.1% aged 20-34 years • 11.8% domestic, 75.6% from abroad	• 39.3% travelled alone, 37.4% with a partner, 15.3% with friends • 70.2% experienced cycle tourists • Travel pattern mostly multiple stop circuit travel, combining destinations within 40km of each other • 50.6% used/intended to use transport support services during their trip (80.9%. Bus, 51.9% Train, 7.4% Car, 6.2% Boat) • Accommodation preferences: 65.9% commercial camping ground, 33.7% camp sites, 23.4% backpacker hostel, 7.9% friends/relatives • Inexperienced cycle tourists motivated by competence mastery, experienced by solitude • International cycle tourists more motivated by solitude and exploration, domestic illustrate higher motivation towards physical challenge, stimulus seeking/avoidance, and social escapism

General socio-demographic/socio-economic parameters	Patterns of tourism behaviour
Simonsen, Jorgensen, and Robbins (1998)	
• gender: men 58%, women 41%, • age distribution: around 50% 25 - 49 years old, 19,5% younger than 15, 20% 15-24 years old, other 50 and above • professional standing: mainly clerical and skilled workers, followed by managerial positions, few self-employed and unskilled workers • over 57% employed, 35.2% students, 4.5% unemployed, 3.3% retired	• Domestic tourists or from neighbouring countries, • Choose to cycle in pairs or in smaller groups of 3-4 people (avg. group size is 2.6 people), • Accommodation: 54% camping site, 17% youth hostel, 9% hotel, 9% holiday house, • Approx. 60% change accommodation during holiday • Length of stay: average 9-10 days, (approx. 80% 5-14 overnight stays) • Catering services: 75.4% shop locally and prepare food themselves, 11.7% eat at restaurants, and 11.4% prepare food from own groceries • 90.4% bring their own bicycles, 9.6% rents , • Cycling tourism behaviour is a peak season activity • 65% cycling is the primary motivation for holiday , 33% secondary purpose of the holiday • 63% have had cycling holiday before, 37% have never • Destination loyalty: 73.6% first visit to destination = low destination loyalty • Number of cycling days: average 8.5 • Length of cycle tours: 31% 21-40 km/day, 23% 0-10km/day, 19% 41-60 km/day, 17% 11-20 km/day, 9% 61-100 km/day, 1% more than a 100 km • On average 5-6 hours are spent cycling • Motivation for cycling holiday: to be out in the open, to exercise, to have fun, to relax, to spend quality time with other • 82% uses the designated cycling routes (mostly for the natural and peaceful surroundings, and traffic safety); Approx. 50% use regional cycling maps • Access mode to destination: 31% car, 25% bicycle, 24% train, 11% ferry, 6% camper and caravan, 2% plane

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