

Sports consumer behaviour: Identifying specific segments of recreational cyclists

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Abstract

Cycling has become a popular activity, and in recent years cycling tourism has boomed, demand for bicycles is rising and the market is expanding. The present research focuses on a segmented approach to the cycling population and aims to identify specific segments of recreational cyclists. The results of the research suggest that segmentation among cyclists makes sense as well, as well-defined segments with specific characteristics, motivations and habits can be developed.

Based on the questionnaire survey, which included 246 responses from respondents, six cycling segments can be identified, with differences in awareness, preparedness, community activity, event attendance and preferences. The results are also relevant from a practical point of view, as the characteristics of the segments can be used to reach cyclists more effectively, target them and offer them a personalised offer.

Keywords: cycling, segmentation, sports consumption, sport behavioural segmentation

Track: Consumer behaviour

1. Introduction of Paper

In recent years, people have begun to prefer activities that can relax them physically, mentally and spiritually, and that they can easily find time for in their free time. One of these is cycling, which is one of the most popular activities in Europe and worldwide (Ferrucci et al., 2021). On the one hand, cycling generates a significant amount of direct consumption, as shown by the 2 010 000 bicycles sold in 2020, and on the other hand, it generates a significant increase in related tourism and leisure activities - European Parliament estimates that approximately 2.3 billion cycle tourism trips are made annually¹.

In addition to transport purposes, several motivations for cycling can be identified, including sport (Duran et al., 2018), a healthy lifestyle (Götschi et al., 2016), or leisure (Downward et al. 2009), the latter being linked to the phenomenon in tourism whereby more and more niche products are becoming available to consumers in addition to traditional product types. These include active tourism products that support sustainable development and the protection of the natural environment, including cycling tourism (Somogyi, 2018), which can be considered a key tourism product (Lőrincz et al., 2020). In addition, cycling plays a role in building the identity of individuals, forming communities and shaping or mediating lifestyles, which makes the study of cyclists an exciting and justified topic, and it is no coincidence that they are the target of a number of scientific studies (Loidl et al., 2019; Hoor, 2020; Jaszczak et al., 2020).

2. Lifestyle approaches

Lifestyle has a strong influence on everyday consumer behaviour and consumer decisions (Füller & Matzler, 2008). According to Solomon and co-authors lifestyle refers to a consumption pattern that reflects an individual's decisions about how to spend time and money, and refers to the attitudes and values associated with these behaviours (Solomon et al., 2013). Töröcsik (2007) considers the concept from a more social perspective, and thus, in his view, lifestyle is more a way of reflecting an individual's belonging to a particular group and the values and behavioural patterns associated with it (Töröcsik, 2007). Lifestyle is in fact based on the simultaneous need for integration (belonging) and differentiation (uniqueness) (Töröcsik et al., 2019).

¹ ANCMA Associazione Nazionale Cielo Motociclo Accessori (2021): Bike market <https://www.ancma.news/bici-2020-da-record-oltre--2-milioni-di-pezzi-venduti/>
Akseli, L. (2022): Grab the opportunity in the growing cycling tourism market <https://www.rentle.io/blog/rental-business/cycling-tourism-market>

2.1 The relationship between cycling and lifestyle

The symbolic importance of cycling has increased in recent years. A forerunner of this may have been observed as early as the 1890s, when it symbolised women's quest for greater freedoms and enabled them to move away from gender norms (Horton, 2006). Cycling is instrumental in building identity and bonding between individuals. Lifestyle factors may be related to the fact that bicycles also have a prestige value, they can become a symbol, to which the price of bicycles and the reasons for conformity in social groups contribute. This may explain the recent increasing trend in cycling, with it being seen as a secondary motivation to increase the body's immunity (Budi et al., 2014). Consumers' behaviour in relation to sport cannot be considered entirely rational, and can be influenced by both psychological and social factors. People often buy sporting goods to belong to a particular group or, on the contrary, to build their own identity and distinguish themselves from others. Sports expenditure also seems to be influenced by how athletes feel and think about participating in sports (Ferrucci et al., 2021).

3.2 Lifestyle-based segmentation and sport researches

Market segmentation refers to the division of a heterogeneous market into homogeneous subgroups, assuming that the subgroups formed have different and specific needs and characteristics (Kucukusta & Guillet, 2015). Kotler (1980) identified different criteria (geographical, demographic, behavioural and psychographic) along which the process can be carried out. The latter becomes important for the present research, which includes, among others, lifestyle, personality, beliefs or motivation (Beane & Ennis, 1987). Lifestyle research has a crucial role in exploring the sport consumption habits of individuals.

Among the most commonly used tools in lifestyle research are the AIO, VALS, the Sinus-Milió concept or the Lifestyle Inspiration Model. The AIO allows the identification of lifestyle types along three dimensions, activity, interest and opinion (Plummer, 1974). In the Lifestyle Inspiration model, lifestyle groups can be identified on the basis of value orientation and pace of life. The different pace of life leads to different leisure time, the latter being important for the consumption of sport and active participation in sport activities, in addition to material opportunities (Csóka, 2020). Lifestyle-based segmentation allows to identify the characteristics of key market segments and to obtain a multidimensional picture of them, yet only very few studies on sport consumption and cycling have a lifestyle focus (Damant et al., 2014; Lamont & Jenkins, 2013; Csóka et al., 2021). Wicker and co-authors considered it important to better understand triathlon participants and thus contribute to the success of triathlon competitions,

and therefore divided the overall triathlon market into smaller lifestyle segments, among which they identified significant differences in age, gender, years of participation, exercise time and expenditure (Wicker et al., 2012). The research of Csóka and co-authors has brought novel findings to the sports marketing literature. In addition to the impact of lifestyle on sport consumption, in order to explore the correlates of sport tourism, they created 9 lifestyle groups based on the Lifestyle Inspiration Model to analyse sport travel patterns (Csóka et al., 2021).

3. Research method

3.1 Aim of the research and method of quantitative data collection

The research focuses on recreational cycling, where different approaches can be found. According to Faulks and co-authors (2008), the definition includes all day cycling trips that take place close to the individual's home or involve a longer distance trip, even overnight (Roden et al., 2020). In his study, Handy (2014) associates recreational cycling with leisure purposes, including sport cycling, exercise cycling, recreational cycling, and cycling for tourism (Maas et al., 2021). The aim of the research is (1) to identify segments among recreational cyclists to understand their sports consumer behaviour, (2) and to explore the characteristics of these segments by identifying significant differences between them.

Data collection was carried out by means of an online questionnaire survey between 22 February and 25 March 2022 in cycling-related Facebook groups and cycling club platforms. The questionnaire contained only closed questions. As an introduction, respondents were asked to answer screening questions, including whether they cycled and, if so, how often and for what purpose. Inclusion in the sample was conditional on the respondent cycling often or very often (i.e. rating the relevant question as a 4 or 5) for recreational purposes (leisure, hiking, healthy lifestyle, improving physical fitness) (Badland et al., 2013). The questionnaire was divided into 5 main parts and most of the questions were adapted to the topic of cycling. After the introductory section, the respondents were asked questions related to cycling habits, which I partly based on a previous research (Loidl et al., 2019). The lifestyle exploratory section included validated variables related to the dimensions of the AIO method. I implemented the scales by relying on previous research (Yu, 2011; Srihadi et al., 2016). In this section, respondents rated both lifestyle statements (I like to explore different cultures. I usually buy new products earlier than my friends.) as well as statements that are specifically related to cycling (I spend a lot of time cycling., It is important for me to be informed about the latest cycling products/services.). The latter variables served to construct the cycling segments. The

questionnaire was completed with a demographic section, which included questions on gender, age, income, and residence.

3.2 Introduction of the Sample

The data collection resulted 277 responses which was reduced to 246 after data cleaning (remained in the sample those who cycle often or very often for recreational purposes). 63% of the respondents were male cyclists while 37% of them were female. Most respondents were 36-55 years old (53% of the respondents). 4% of the sample were 18-25, 19% were 26-35, 21% were 36-45, 32% were 46-55 while 15% were 56-65 years old. 1 respondent is under 18 and 9% was aged 65 or more, so average of the whole sample was 42 years. 53% of the respondents graduated at university (possessing Bachelor, Master or PhD degree), while 21% graduated in high school. The rest finished only elementary school or vocational training and 1 person with no education among the respondents. 74% of respondents consider their income situation to be slightly worse than average, 18% consider it to be slightly better than average, 6% consider it to be much worse than average, while 2%) consider it to be much better than average.

4. Research results

Data collected through a questionnaire survey were analysed using SPSS statistical software. As a first step, the variables used were classified into lifestyle and cycling factors using principal component analysis. For the lifestyle factors, one variable was excluded from the analysis due to its low communal value; its omission did not bias the results. Thus, the KMO indicator is 0.755 and the resulting six factors have a preserved coefficient of variance (information content) of 65%. The final design of the cycling factors required the deletion of 4 scales. As a result, the KMO indicator is 0.862 and the coefficient of variance retained by the 3 factors is 64%. The factors can be named as follows:

Table 1.

Identified lifestyle and cyclist factors

Lifestyle Factor	Explanation of the factor
Confidence	perception of personal success, goals, vision
Intensive shopping	frequency of shopping, openness to new products, shopping influenced by advertising
Social life	extent of spending time with friends and family, participation in cultural activities
Home-based activity	activities at home, staying at home in the free time
Adventurousness	openness to different cultures and lifestyles
Physical activity	willingness to be active in physical activity and outdoor activities
Cyclist factor	
Up-to-date	preparedness for cycling content and frequency of purchase of cycling equipment

Social activity	interaction with other cyclists
Enjoyment	perception of enjoyment associated with cycling

Source: Own editing based on quantitative data collection

4.1 Segmentation of recreational cyclists

As the next step in the analysis, I performed a cluster analysis on the 3 cycling-related factors, which resulted in the identification of six different cycling segments for the respondents.

Table 2.

Main characteristics of the cycling segments

Segment	Cycling habits, Demographic characteristics and Lifestyle
Functional cyclists (11%, n=27, age: 52% 46-55 years, residence: 48% urban, education: 26% university bachelor, income: slightly above average)	In fact, individuals in this segment see the bicycle only as a means to an end, cycling is only about functionality, their main motivation is to meet their daily needs for exercise and to stay healthy for a long time. The passion or the sharing the good experience with other cyclists are not really important for them. Because of it and because some of them are in the early stages of the sport, they do not buy frequently and spend too much on cycling equipment. They are also not very socially active, they are not integrated into the cycling community and do not interact with others. Most of them cycle almost every day (41%) or several times a week in good weather (41%). They spend a significant part of their leisure time doing so, with nearly 45% cycling for 2-3 hours per day. It should be noted that they are not open to group tours, making this tourism product difficult to sell, but accommodation that offers a wellness service in addition to bike rental may be attractive, as they consider it important to include exercise and health in their daily lives. In terms of their lifestyle, they prefer to stay at home after work and at weekends, are passive not only in cycling communities but also in their daily lives, spending little time with friends and family, not really looking for adventure or a spin. This segment is very prone to buy on the strength of a favourable advertisement, although they tend to choose products from brands that are not well known.
Social cyclists (20%, n=49, age: 28% 36-45 years, residence: 35% urban, education: 33% university bachelor,	For this group, cycling is also a way of socialising. They are keen to pay to attend on cycling events where they interact with other cyclists by sharing their own experiences and opinions. Social activity is very intense in their case and they feel that frequent interactions around similar interests and spending time together strengthens their social relationships. These individuals are able to relax and recharge through cycling, which is associated with being able to spend time with people with whom they feel comfortable. They often combine their passion for sport with a tourist experience. 45% of the group cycle almost every day, 33% cycle for 1-2 hours occasionally, while nearly 30% cycle for more than 3 hours. In terms of routes, they prefer challenging stretches. They may be interested in one-day

income: slightly above average)	organised cycling tours that they can do with a group of friends, with or without accommodation and bike hire. When looking at lifestyle motives, it can be seen that members of this segment are open to exploring new cultures and lifestyles. Regular physical activity is part of their daily life and most of their leisure activities take place close to home.
Hobby cyclists (24%, n=60, age: 36% 46-55 years, residence: 32% city and 30% capital, education: 37% university bachelor, income: slightly above average)	The segment is interested in keeping up to date with current cycling trends and therefore regularly buys new accessories or clothing, but does not believe that cycling can have a positive impact on their social relationships or on their circle of friends. They are motivated by recreation and recharging, but not to the extent that they always choose cycling as a way to do this. 33% of the segment like to cycle for shorter periods of 1-2 hours, while 23% like to cycle for 2-3 hours, and they are more likely to choose easy routes and to cycle when the weather conditions are right, which is a major factor influencing their intention. In terms of lifestyle factors, they are open to trying different lifestyles, but they are the least likely to like meeting new people and tend to stay at home after work or at weekends, possibly going out in the area. Building on this, local tourism can be strengthened with them by exploring the attractions of a region through cycling tours. They tend to buy well-known brands and are more likely than average to try new products.
Committed cyclists (22%, n=54, age: 36% 46-55 years, residence: 35% urban, education: 28% high school graduation, income: slightly above average)	These are the people for whom cycling is both a pastime, an interest and a social activity. They keep informed about cycling programmes and products, invest in them regularly or buy something cyclist equipment and enjoy reading content shared by others. As it is important for them to be well prepared, they often chat with their cycling friends, but they are also open to others, as they are free to share their own opinions or experiences online. They feel that being part of the cycling community is very important and they try to become active members. They often participate in events and are open to community activities because they feel that they have the opportunity to strengthen their social contacts. 49% of the segment cycle almost every day, 30% cycle more than 3 hours on average, while a larger proportion, 28%, cycle 1-2 hours. They prefer exciting and challenging routes. The largest proportion (9%) in this segment are those for whom the average cycling trip lasts 1 day. These individuals participate in all-day events or rides. They love outdoor activities, they get out in their free time, they are adventurous, they enjoy a good buzz and when they can be in company, they often spend time with friends and family. They are very confident and take a positive, proud outlook on their future and personal achievements. Their cycling buying habits are characterised by brand awareness and openness to new things, which can make them excited about an E-bike tour offer for example in the Lake Balaton region in Hungary, or in Malaga in Spain, or a new service within a cycling app.
Me-time cyclists (12%,	This segment includes people who really enjoy cycling for leisure, for them it is the real recreation and the main value, but in most cases they prefer to experience this recharging

<p>n=30, age: 28% 46-55 years, residence: 47% capital city, education: 40% university bachelor, income: slightly above average)</p>	<p>alone, so they are less likely to participate in events and are not particularly open to cycling in company. Keeping up to date, following cycling trends and buying regular equipment are not feature for them, they just want to have the experience of cycling. In their case, a refreshing cycling trip lasts on average 2-3 hours, which is true for 33% of the segment, but 20% go on a trip longer than 3 hours, for which they prefer smooth stretches of road and do this mostly in good weather, once a week or even more. They are very fond of outdoor activities, organising activities for themselves at weekends, during which they like to discover different cultures. For them, it is essential to provide individual cycling tours or services based on adventure cycling, which allow them to discover spectacular and unique landscapes or new routes in the framework of a day trip.</p>
<p>Conscious cyclists (11%, n=26, age: 30% 26-35 years, residence: 50% urban, education: 31% VET/University Master's degree, income: slightly above average)</p>	<p>They are the most knowledgeable about cycling. In my opinion, the members of this segment cycle for recreation and mainly for sport, and therefore take the collection of information and the provision of appropriate accessories and equipment seriously. As regards their social activity, they do not consider it important to participate in group events and to develop good relations with cyclists, preferring to cover the distances on their own. 42% of the segment cycle for more than 3 hours on average and 35% cycle for 2-3 hours occasionally and most of the time on challenging routes. They are showing the highest level of intensity, frequently choose a location far from their home to complete tiring cycling trips. The members of this segment see cycling as a sport and striving for high performance what sometimes like to show it off by taking part in competitive. They like to get out and about, therefore I think that a multi-day ride on mountain bike trails might be attractive to them. They spend a lot of money on their purchases, which is already reflected in the cycling equipments they buy, since the availability of free time and the adequate income to allocate to passion allow them to do this.</p>

Source: Own editing based on quantitative data collection

5. Summary

The main objective of this study was to identify cycling segments among recreational cyclists and to explore the differences between them. The segmentation of cyclists is justified, as many people choose this activity, yet there is less emphasis on grouping them in some way. The results of the research showed that segmentation among cyclists is meaningful and relevant, as it is not worth considering all cyclists as the same, as it is possible to create well-defined segments with specific characteristics. Based on the questionnaire survey, six segments have been created, for which differences can be identified in terms of awareness, preparedness, community activity, event attendance and preferences.

The primary research has some limitations, including the sample size and the disproportionality of the sample, as the questionnaire was mostly completed by urban residents

and university graduates, so the segments do not really show significant differences along demographic characteristics, and it is less possible to observe different correlations. A further limitation is that the questionnaire was only shared online, so respondents who are not present in the online world were not included in the survey. The significance of the research lies in the segmentation of the population of domestic cyclists. The results are also relevant from a practical point of view: based on the characteristics of the segments, cyclists, who represent a growing market, can be reached more effectively, targeted and offered a personalised offer. The study can help decision-makers by providing a picture of the heterogeneous cycling population through the segments, including cycling habits, propensity to buy, motivation, time use and up-to-date information. Knowledge of the segments is important when developing a (marketing) strategy, be it for cycling products or services, environmental actions or investments, increasing cycling propensity or infrastructure development.

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