

Hiking as a Recreational and Tourist Activity – Comparing Portuguese Hikers with those from other Nationalities

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Abstract | Hiking has been identified as an important recreational and tourist activity in many countries. In Portugal, however, there are not many well developed opportunities for hiking, since the activity is not very common amongst the population and has not been discovered yet as a potential for tourism development. However, a system of well designed walking paths may be an interesting and relatively inexpensive infrastructure, attracting visitors to natural, rural and mountain areas, making corresponding heritage of these areas more accessible and visible and thereby motivating visitors to stay for longer periods of time. The walking paths' success should largely depend on the capacity of those responsible for their management in promoting their usage amongst residents and tourists, as well as in supervising visitor flows and behaviours. This should be enhanced by the understanding of these visitors' profiles, desires and behaviours related to nature. In the present study, we show the results of an exploratory survey of Portuguese and foreign hikers (N=200), whose distinct interests and needs that may be accommodated by specific developments of walking paths and associated tourism products.

Keywords | Hiking, Destination Marketing, Visitor Survey, Market Analysis.

Resumo | O pedestrianismo tem sido identificado como uma actividade de lazer e turismo com bastante relevância em muitos países. Em Portugal, no entanto, não existem muitas oportunidades para praticar pedestrianismo, uma vez que esta actividade não é muito comum entre a população e ainda não foi descoberto o seu potencial para o desenvolvimento turístico. Mas, um sistema de trilhos bem desenvolvidos pode constituir uma infra-estrutura pouco dispendiosa, que pode atrair visitantes para as zonas naturais, rurais e áreas de montanha, tornando o património dessas áreas mais acessível e visível, motivando os visitantes a permanecer mais tempo. O sucesso dos trilhos pedestres depende fortemente da capacidade dos responsáveis pela gestão dos trilhos a nível da promoção da actividade entre os residentes e turistas, assim como a nível da supervisão de fluxos e comportamentos. Isto deve ser desenvolvido com o conhecimento dos perfis desses visitantes, desejos e comportamentos face à natureza. No presente estudo, mostramos os resultados de uma pesquisa exploratória efectuada a pedestrianistas portugueses e de outras nacionalidades (N=200), em que os diversos interesses e necessidades devem ser integrados através do desenvolvimento específico de trilhos pedestres e produtos turísticos associados específicos.

Palavras-chave | Pedestrianismo, Marketing para Áreas Destino, Estudo dos Visitantes, Pesquisa de Mercado.

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1. Introduction

Tourism assumes a most important role in the Portuguese economy, representing about 11% of the GNP and providing employment for approximately 8% of the country's active population (ICEP, 2004).

The relevance of the sector is reflected not only by its economic impacts, but also by its consequences on a social, cultural and environmental level, namely by its potential to balance inter-regional development, to value and help preserve cultural and environmental heritage as well as to enhance the well-being of the local residents' population, aiming at a sustainable development of the destination. Hiking tourism may be considered one of the tourism products that may support this sustainable tourism development paradigm and may, therefore, be worthwhile fostering, particularly in a country with the natural and cultural resources existing in Portugal, but where tourism is highly concentrated on the "sun and sea" product located in the Algarve.

In the present study, we discuss this potential, based on the results of an exploratory survey of Portuguese and foreign hikers (N=200), whose distinct interests and needs may be accommodated by specific developments of walking paths and associated tourism products.

2. Hiking and tourism

Walking has meant for many decades simply an act of moving from one place to another. However, since the 19th century industrialization as well as the Romantic Movement have put the activity into a new light and hiking became popular as an enjoyable leisure activity (Solnit, 2000).

These movements had large repercussions in some European countries with a long tradition in hiking, as in the case of Great Britain or France, although the activity has developed in a distinct

manner in each country (Toutchet, n.d.; FFRP, 2003; Bruzek, 2003; Ramblers, 2003; Christie and Matthews, 2003). In Great Britain the activity evolved in a less structured way than in France, where a central entity (FFRP) rules all issues related to walking trails (FFRP, 2003).

Actually, there are many recreational and tourism activities that are based on walking. However, walking through nature on signalled and especially prepared walking trails is designed as pedestrianism (Serrão, 1997; Kay and Moxham, 1996 cited by Edensor, 2000; Gonçalves, 2002). This walking trail may be used in the context of leisure and recreation of the local population, but may also be considered part of a tourism product (Lane, 1999). In this context it can be viewed as a relatively inexpensive infrastructure, which corresponds to the new or renewed tourist trends in tourism demand.

The walking trail allows the tourist to develop an activity in direct contact with nature, thereby making it fit well into tourism forms based on nature as the main attraction, such as ecotourism. It may represent a challenge and thereby be integrated into adventure tourism. It may further permit direct contact with local communities and the existing heritage along the way and, thereby be part of a cultural tourism offer.

The walking trail may, thus, complement other tourism activities and sustain the demand of the tourism businesses, such as those related to accommodation, restaurants, handicraft shops and enterprises offering sports or recreational activities.

Tourism development around the hiking theme may correspondingly provide economic benefits for the local population, while simultaneously furthering the preservation of natural and cultural heritage, thereby fostering sustainable tourism principles.

The number of pedestrians or hikers in Europe is relatively large. To name an example, about 30% of the Swedish population is used to walking through the forest and in the countryside and about 50% of the British population also regularly walk in natural surroundings (Kourchener and Lyard, 2000).

A study undertaken by Mintel (2003) showed that the European market of adventure tourism is growing and that the core product being developed for this type of market in Europe is the walking trail or packages that include it as a main ingredient.

In Portugal hiking was first associated with the camping movement and has never assumed the relevance and popularity as in countries like France or Great Britain. The activity has been practised on a variety of trails, but it was only by 1997 that the first walking trail was officially registered in the country (Gonçalves, 2002). Portugal is actually a country where the “sun and beach” leisure and tourism activities prevail, but it also disposes of a series of resources that should be most adequate and interesting for hiking.

The discovery of this activity may actually, in a context of developing rural and natural destinations, represent a source of alternative income for the increasingly marginalized interior regions of the country, contributing to new dynamics and to fix the young population, attracted to the more urbanized coastal zones. On the one hand, it may foster traditional trade in these areas, but also the development of companies developing recreational programs, restaurants and accommodation units.

It may further be a source of direct employment and income, for example, through the employment of those responsible for designing, sign-posting and maintaining the trails, according to international norms, those who will undertake the fieldwork needed to study the landscape and existing resources to integrate into these trails. Once, designed and conveniently prepared, the trails need to be promoted, good quality information must be produced (e.g. maps), and interpretation facilities and activities developed.

The walking trail may be viewed as a very complex and heterogeneous tourism product, aggregating elements quite diverse in nature (see Table 1). For once, there are the afore-mentioned more commercial aspects of supply. However, on the other hand, the relevance of the so-called “free goods” which are not for sale, like the landscape, natural and cultural heritage elements integrated in these trails must be stressed, since these resources constitute the main part of the product. These are elements the value of which is difficult to assess and many of which pertain both to the private and public sector. Correspondingly, they depend frequently on an effective cooperation between diverse entities, such as municipalities, associations and private

Table 1 | Walking trails and tourism

Nature / Eco-tourism	Active / Adventure tourism	Culture tourism
<ul style="list-style-type: none"> – Stimulates the observation of the natural environment, of fauna and flora; – Enhances knowledge of nature, and environmental consciousness; – Permits better control of tourist flows in natural environment; – Promotes nature conservation. 	<ul style="list-style-type: none"> – Permits physical activity; – Activity in a natural outdoor environment; – Enhancing health; – Depending on the degree of difficulty, it may represent a challenge. 	<ul style="list-style-type: none"> – Potentially stimulates the interest in cultural heritage; – Enhances knowledge of rural areas, its population, traditions and way of life; – May foster friendship and cultural exchange (between hikers and local population).
Sustainable tourism		
<ul style="list-style-type: none"> – Enhances cultural and environmental knowledge and consciousness (both tourists and residents); – Promotes heritage conservation; – Traditional paths are excellent resources already existing in most areas; their improvement and revitalization for tourist use may enhance the community’s economy; – Contributing to attract tourists and making them stay longer, with direct benefits for businesses, such as accommodation, restaurants, shops, etc. 		

Source: adapted and extended based on Gonçalves, 2002; Lane, 1999.

economic agents. In this context, the development of a management process based on partnerships is most important.

Being the walking trail an infrastructure that may cause economic, socio-cultural and environmental impacts, it is further important to foresee and eventually avoid any potential negative impacts, trying to maximize the positive outcomes. Market studies and those focusing on the identification of carrying capacities may be relevant contributions to this concern. In the present article, a market analysis is presented focusing on both the national and international effective market attracted to walking trails in Portugal.

3. An exploratory study about pedestrianism in Portugal

In the context of an exploratory study, 300 questionnaires were administered in the following way: 100 "non-hiking" Portuguese, 100 Portuguese hikers and 100 hikers from other nationalities. However, in this paper we focus on analyzing the profile, attitudes and behaviors of the hikers interviewed, trying to identify differences between the domestic and foreign visitors of Portuguese walking trails. For this purpose, respondents were interviewed on several walking trails located in geographical areas with different landscapes in the North, Center and South of the country, namely in the Gerês National Park (North), the Serra da Estrela Natural Park, São Jacinto, Buçaco (Center) and in Borba (the Alentejo).

The questionnaire aimed at obtaining information concerning:

- The respondents' socio-demographic profile (nationality, district of residence, habitat, sex, level of education, occupation);
- The respondents' general holiday behavior (spread of holidays along the year, activities

undertaken during the holidays) and general holiday motivation;

- The respondents' environmental preferences and ecological sensitivity;
- The respondents' behavior related to specific hiking trip (motivation for hiking, main source of information for choosing a trail, main means of transportation, constitution of traveling group, organization of trip, accommodation, distance of walking trail, pattern of expenditure, important features for visiting a walking trail);
- As well as factors restraining respondents from hiking.

Responses were obtained from a survey, with direct administration of questionnaires at the presence of an interviewer. In an attempt to avoid biases there was a concern about diversifying the walking trails included in the approach, trying to interview all hikers that were encountered on specific days on these trails. The approach may, thus, be considered a *cluster sampling procedure*, with clusters defined by space and time, which may be considered an appropriate approach for sampling tourists and visitors, given the lack of prior statistical information about the universe under study (Kastenholz, 2002).

The data was then analyzed with the statistical program SPSS (version 11.0). A univariate analysis was undertaken, analyzing distributions and indicators of central tendency (means and standard deviations), whenever possible. Bivariate analysis was also undertaken for identifying relations between variables, using the following techniques:

- The Chi-Square test, in case of nominal variables;
- The non-parametric test Mann-Whitney, in case of ordinal variables.

Apart from this, a principal components analysis was carried out in order to identify the underlying dimensions of a series of items used to measure environmental sensitivity.

4. Global survey results

Respondents present, globally, the following *socio-demographic characteristics*:

- *Gender*: approximately balanced distribution between men and women;
- *Age*: respondents were in their large majority situated in an age range of between 25 and 54 years;
- *Level of education*: 63% owned a title of higher education;
- *Occupation*: mostly top or mid management (29,3%), students (19,6%) or service and industry employees;
- *Place of residence of Portuguese hikers*: mainly Central Region (56%);
- *Nationality of foreign hikers*: basically Europe (98%), namely French (54%), Dutch (11%), German (9%) and English (9%);
- *Habitat*: 58,5 % live in cities.

The main *holiday motivation* indicated was “escaping daily life” (49,5%).

Respondents further referred to the following *general holiday behavior*:

- *Months of holidays*: holidays most frequently spent in the summer months;
- *Week-end-breaks*: all along the year.

When hiking respondents reveal the following behavioral patterns:

- *Main motivations* are linked to the enjoyment of nature: “to observe and enjoy the beauty of the landscape”, “to breath pure air” and “to know and interpret nature in an involving way”;
- Respondents base themselves on *informal information sources* for collecting data on walking trails, specifically “recommendations by friends and relatives”;
- The main *means of transportation used* to travel to the walking path visited is the car (their own or a rented one);
- *Group constitution*: respondents tend to hike either with friends or in a couple;
- *Trip organization*: a large part of respondents did not undertake any previous planning of the hiking trip;
- *Accommodation*: hikers, staying overnight, reveal a preference for camping sites;
- *Pattern of expenditures*: large part of hikers spent some amount of money on the site visited, however to a limited degree, with expenditure levels being mainly “up to 10 euros” as well as varying between “10 and 25 euros” per day;
- *Distance of the visited trail*: respondents tend to prefer short-range walking routes (PR)¹;
- *Factors motivating hiking on a specific trail*: hikers value particularly aspects such as: “quality and conservation of the landscape”, “existence of information about the trail”, “well-signed trail” and “silence”;
- *Factors that may constitute an obstacle to using a specific walking trail*: the main aspects identified as potential obstacles were associated with safety, namely the items: “to walk through very dangerous places”, “difficulty of assistance in case of accident” and “lack of security of the trail”;

¹ Hiking trails in Portugal are divided into two types: short range (*Pequena Rota* – PR) and long-range (*Grande Rota* – GR). Short-range trails cover a distance of up to 30 km and are registered in the counties, enumerated and integrated into a county network. A long-range trail covers more than 30 km of distance and may result in a walking trip of two or more days, implying an overnight stay on the way. These trails are registered on a national level, if it only integrates national territory, being subject to European registration and enumeration, as soon as the trail is of trans-European nature, i.e. covering, apart from Portugal, the territory of three other European states (Gonçalves, 2002).

– *Factors that might be improved in a walking trail:* respondents revealed also in this dimension a large concern about the trail’s safety, specifically reflected in the item “in case of disorientation or accident existence of control/ security”.

Globally, respondents associated sensations such as serenity, relaxation, tranquility and fun with nature, revealing mostly positive feelings. However, some aspects revealed a more pronounced dispersion in answers, as in the case of associating enigma, suspense or even fear.

It was further possible to identify a factorial structure reflecting diverse dimensions of environmental perception, based on a Principal Components Analysis of the total of 300 responses to a series of 24 Likert-type scales, indicating diverse items of environmental perception, identified in literature

about environmental psychology (Russel and Lanius, 1984; Kaplan, 1982). Results of this analysis² are presented, in a summarized version, in the Table 2.

² The PCA presents the following features:
 – Ratio responses/ variables = 12.5 (the ratio “number of cases/ number of variables” should be below 5/1);
 – 74,585% of total variance explained (in social sciences an explained variance of at least 60% is considered desirable);
 – KMO = 0.892 (*good*);
 – *Bartlett’s* test of sphericity= 5686.300 (sig. 0.000), leading to the rejection of the hypothesis of the correlation matrix coinciding with the identity matrix;
 – Matrix of reproduced correlations showing 83% of residuals with absolute values below 0.05;
 – MSA: vary between 0.756 and 0.953 (values above 0.50 are acceptable).

In order to facilitate the interpretation of results a VARIMAX (orthogonal) rotation was applied, leading to relatively high and well associated *factor loadings* for each variable.

Table 2 | Principal components analysis of aspects of environmental perception

	Relaxing	Gloomy	Enigma	Stimulating	Fear
Serenity	0.909				
Relaxing	0.905				
Pleasant	0.820				
Fun	0.804				
Arousing	0.790				
Beautiful	0.749				
Tranquil	0.734				
Sensational	0.719				
Boring		0.858			
Disturbing		0.854			
Annoying		0.834			
Harassing		0.809			
Gloomy		0.716			
Anxiety		0.679			
Enigma			0.901		
Suspense			0.875		
Mystery			0.838		
Restoring				0.604	
Active				0.591	
Exciting				0.484	
Stimulating				0.483	
Fear					0.854
Terror					0.803
Apprehension					0.693
Cronbach	0.913	0.876	0.892	0.877	0.854
% accum.variance explain.	32,12	52,12	61,69	67,77	72,34

5. Differences between Portuguese and hikers of other nationalities

Next, we will analyze the differences between the group of Portuguese hikers and that of other nationalities, aiming at understanding the potential and interest of an eventual market segmentation of visitors of Portuguese walking trails, permitting a better adaptation of the respective tourist supply to each segment. Table 3 presents, in a summarized manner, the main statistically significant differences, as assessed through cross-tabs, in connection with Chi-Squared tests, and through Mann-Whitney tests.

6. Discussion of results and implications for the management of walking trails

Portugal is a country rich in natural resources (basically in its interior regions), where there is a large potential for hiking in an attractive surrounding. There are walking trails in many of these natural areas, some of which with important levels of demand, but which have not yet been officially registered.

If, on the one hand, there is no complete or even approximate inventory of existing natural resources

at the national level, on the other hand, the walking trail is a free, publicly accessible infrastructure, making registration of visitors of these trails a difficult task. Since there are no further studies published about the universe of hikers in Portugal and no corresponding data publicly available, a survey was planned to be directed to a sample of clusters of visitors of some walking trails, in an exploratory approach, as explained before.

Results of this survey provided most interesting data for the entities responsible for the implementation and management of walking trails in Portugal. Understanding the users of these trails permits them to improve the quality of activities and equipments provided both for in the context of tourism and recreation. The manager of corresponding destination areas may, thus, direct supply according to the characteristics and interests of demand, thereby improving significantly the visitors' experience.

Thus, the *Portuguese hikers*, coming basically from the coastal zones, tend to prefer walking trails in the proximity of their homes, typically not staying overnight and making little use of tourism infra-structures, thereby spending less money at the visited region. It is, thus, not surprising that they reveal a typical behavioral pattern of excursionists. In contrast to foreign visitors, they feel more need to be guided. If those responsible for the management

Table 3 | Differences between Portuguese hikers and hikers of other nationalities

Portuguese hikers	Hikers of other nationalities
<ul style="list-style-type: none"> – Engage in activities connected with coastal landscapes and urban tourism during their holidays; – Show less concern about the preservation of the environment in their daily lives; – Use more frequently informal information sources about the destination; – Use more frequently their own car or that of family and friends; – Use less frequently the services of travel agencies and tour operators; – Use less frequently officially registered accommodation; – Spend less at the destination; – Prefer being guided on the walking trail. 	<ul style="list-style-type: none"> – Engage in activities connected with culture or nature; – Show greater concern about the preservation of the environment in their daily lives; – Use more frequently formal information sources about the destination; – Use more frequently rented cars; – Use more frequently the services of travel agencies and tour operators; – Use more frequently officially registered accommodation; – Spend more at the destination; – Are more independent and adventurous while hiking, revealing a lower tolerance of crowding.

of walking trails intend to focus on this market segment, they might be most successful by:

- Developing guided hiking tours, in a group, permitting a higher level of safety on the trail, as well as a socializing experience that is also more sought by this group and an opportunity for environmental education, which might be needed considering their lower level of environmental sensitivity³;
- Developing tourist support infrastructures providing simultaneously comfort to visitors as well as permitting an optimized use of regional resources and thus the generation of income for the local population;
- Providing well-signed walking trails, using appealing interpretation techniques and providing different degrees of difficulty, permitting a positive experience for diverse types of visitors;
- Guaranteeing a positive experience in order to develop loyalty amongst visitors;
- Designing walking trails that cross-localities in order to enhance contacts between visitors and local population, boost local commerce as well as the supply of more complex tourism products that may lead tourists to stay for longer periods of time.

According to a survey undertaken by DGT (2004), the domestic market of short-break trips is increasing. In this context, the walking trail may be promoted as the central element of new, integrated tourism products for this market, encouraging Portuguese visitors to remain at the “hiking destination”, rich in attractions and activities, overnight and to increase their expenditure levels correspondingly.

On the other hand, *foreign hikers* naturally tend to already use, on a regular basis, the tourism industry’s infrastructures and services, namely formal information sources, rented cars, travel agencies, tour operators and accommodation units. For this market hiking clearly appears as a tourist activity, demanded

as an important recreational element during the holidays, associated with other tourist activities and consumptions, particularly at rural and nature destinations. These hikers correspondingly tend to spend more money at the destination and may, thus, be considered a very interesting visitor market in a perspective of enhancing a complex network of tourism products at the destination. Additionally, it is important to note that this group reveals higher levels of environmental sensitivity, that they tend to be more adventurous than the Portuguese, but show a much lower tolerance towards the factor *crowding*. Correspondingly, it may be adequate to attract these hikers to walking trails located in environmentally more fragile areas, such as protected areas. For this market segment, those responsible for planning and managing walking trails might be well advised to focus their attention on:

- Developing small-scale tourism infrastructures, well integrated in the environment and aiming at an optimization of the use of existing resources, products and competences;
- Preserving natural resources and landscape quality;
- Developing and maintaining a high quality sign-posting and interpretation system, permitting the activity in a safe and well organized surrounding;
- Managing visitor flows and guaranteeing silences on the trails;
- Developing trails that provide a satisfactory experience, according to the demands of this group, in order to increase loyalty amongst visitors and enhance positive word-of-mouth.

³ Associations linked to the management of walking trails in Portugal – FNC and FPME – are planning a training course for a “walking trail expert”, in which also aspects such as entertainment and interpretation associated with the hiking experience in a guided group are subjects of interest.

It is interesting to state the nationality of the hikers interviewed for the present sample, namely being French, Dutch, German and British. A study undertaken by MINTEL (2003) confirms the relevance of these markets in the context of adventure tourism, further revealing a strong increasing tendency and pointing at the outstanding role of hiking as one of the most central elements in the most demanded *soft adventure tourism market*. Considering this evidence, the development and promotion of walking trails for this market segment may also for these reasons become an interesting option.

Hiking should thus be recognized as an important recreational and tourist activity, that may provide a large potential for enhancing the rural and natural areas' attractiveness, their sustainable development, thereby fixing the population, and last but not least, contributing to nature and heritage conservation. These positive effects, however, depend on the destination's capacity of providing well-designed and managed walking trails, integrated in an appealing, diversified, but still consistent overall tourism product. In this context, a successful planning and management process should take the market's needs and specificities into account. The present study revealed some significant differences between market segments, which must be carefully chosen and targeted, in a perspective of "management of demand" (Kastenholz, 2004), in order to enhance the potential of a sound and sustainable tourism development at the "hiking destination".

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