

Information-enabled tourism destination marketing: addressing the accessibility market

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This paper demonstrates that the accessibility market is not homogenous, but it entails different sub-segments with distinct needs and requirements. Ultimately each person is unique in his/her abilities and preferences and this is more evident in this market. Secondary research revealed the size of the accessibility market in Europe to be 127 million people. Extensive qualitative research through 16 focus groups has demonstrated that the main requirements of these segments focus on three interlinked elements, namely accessible built environment, information regarding accessibility and accessible information online. Traditional segmentation contradicts the central concept of participation, as directed by the social model of disability, and it entails assumptions regarding the requirements of the market segments. Information communication technologies (ICTs) can assist destinations to effectively address the particular requirements of these market segments through the use of profiling and personalisation features, which will allow users themselves to specify their requirements. Through the use of ICTs, users are enabled to declare their needs and requirements. Destinations can then offer suitable products and services according to the particular needs of each traveller, encourage participation, congruent with the social model of disability.

Keywords: destination marketing; market requirements; market segmentation; accessible tourism; disability; information communication technology

Introduction

Destinations compete intensively, and need to constantly enhance their attractiveness and competitiveness (Buhalis, 1998; Ritchie & Crouch, 2003). These depend on their ability to satisfy the needs of buyers effectively and efficiently and to address the specific requirements of different target markets (Hwang & Fesenmaier, 2003). Hence, it is critical to divide the market into segments with similar needs and wants as well as to create customised offerings and suitable products (Dolnicar & Grün, 2008; Füllera & Matzlerb, 2008; Lourdes & Albaladejo, 2007; McKercher, 2008; Weber, 1995). Segmentation enables destinations to attract and retain profitable tourist segments and ultimately gain competitive advantage (McKercher, 1998). The provision of tailor-made goods and services to distinct market segments is therefore strategically important in an increasingly sophisticated travel marketplace.

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One of the rapidly emerging market segments is the accessibility market, which includes people suffering from some form of disability as well as the ageing population which often develops illnesses that lead to disability. Global competition, legislation and the increasingly ageing population demonstrate that competitive tourism destinations and organisations should undertake steps to improve their accessibility and to provide appropriate information (Pühretmair, 2004). Inclusive design, in terms of both built and online environments, can assist destinations to address the needs of other market segments that also have access difficulties, including pregnant women, parents with prams and travellers with heavy luggage or injured individuals that may suffer temporary disability.

To address the disability markets and benefit from the multiplier effects generated by friends and relatives travelling with them (Gerlin, 2005; Pühretmair, 2004), destinations should not only have ‘barrier-free’ facilities but also develop mechanisms to widely disseminate information about accessibility. Destination management organisations (DMOs) therefore need to gather, manage and disseminate reliable and accurate information on accessibility. Information communication technologies (ICTs) and destination management systems (DMSs) provide effective tools to perform this task and support destinations and suppliers to offer suitable services and capitalise on these markets.

This paper explores the accessibility market and provides an estimate of its size in Europe. Then it identifies its sub-segments and examines the particular informational needs and requirements. Finally, it explores how ICTs can enable tourism destinations and organisations to capture this market and improve destination marketing by focusing on the specific requirements of different market segments.

Theoretical background

The accessibility market segments are not easy to describe and define. The most commonly cited definitions are given by the WHO (World Health Organisation) (1976) and the United Nations Enable (2003), which draw a distinction between impairment and disability, namely:

- ‘An *impairment* is any loss or abnormality of psychological, physiological or anatomical structure or function’ (WHO, 1976).
- ‘A *disability* is any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being’ (United Nations Enable, 2003).

The ontological underpinnings of disability can be tracked to two disability paradigms: the medical and social model. The core of the medical model is that disability is a deficiency. It is a problem of the individual, and its magnitude relates to the extent of the deviation from the normal. The social model views disability as part of social phenomena, and examines it in the context of exclusion, discrimination and oppression (Hughes, 2007; Oliver, 1990; Zola, 1989). The distinction between impairment and disability, which is central to the social model, overlooks impairment as a physical limitation, and focuses on disability as a social construction (Crow, 1996).

The United Nations Disability Statistics Compendium notes that there is strong and positive relation between ageing and disability globally (Bloch, 2000; Gerlin, 2005; Schmidt, 2004; United Nations, 1990). Reduced function and participation in daily activities associated with impairment and disability increases substantially after the age of 40 for most of the population groups (Eurostat, 2001; United Nations, 1993).

Currently, the European population is continuously ageing. There are three main factors driving population ageing. The first one is related to the ageing of the baby-boom generation of 1945–1965, reaching 65+ in 2010. Secondly, as fertility rates have decreased since 1965, the elderly population is growing at a faster rate than the younger generation. Thirdly, life expectancy at older ages is increasing (OECD – Organisation for Economic Cooperation and Development, 2002).

While there is an abundance of marketing segmentation studies on ethnic, age and socioeconomic sub-groups, the potential of the accessibility market is largely ignored (Burnett & Bender Baker, 2001; McKercher, Packer, Yau, & Lam, 2003; Ray & Ryder, 2003). Despite the critical need to address different market segments, the accessibility market is currently underserved. Making tourism accessible to disabled people is regarded by many tourism destinations and suppliers as an additional and even unnecessary burden (Shaw & Coles, 2004; Shaw, Veitch, & Coles, 2005). This attitude exists mainly due to the misunderstanding of the requirements of this markets as well as the perception that significant costly alterations in infrastructure and the built environment are required in order to remove barriers. The cost involved has often deterred tourism enterprises and destinations from adapting their offerings, thus paying less attention to the disabled market.

Since the tourism industry is being forced to develop inclusive facilities and embrace the social model of disability (as pushed forward by political agendas and legislation worldwide), a market focus/benefit approach may be required to initiate commitment. The potential of the disability market may not be motivated by participation, as directed by the social model, but it provides a strong financial motive for change. To enable the acceptance of the social model, an understanding of the requirements of this market is essential. The contradiction between the traditional segmentation of the market and the central concept of participation within the social model can be resolved through the use of technology and the incorporation of enhanced profiling and personalisation features. ICTs can allow people with disabilities to express their needs, support tourism organisations to utilise advanced marketing techniques, understand and serve particular needs and encourage participation, congruent with the social model of disability.

Segmentation

Market segmentation refers to the process of classifying customers into groups based on different needs, characteristics or behaviour (Sarigollu & Huang, 2005) and is needed to identify and target specific customer groups (Dolnicar, 2004). Segmentation primarily includes geographical, socioeconomic, demographic, psychographic (such as benefit sought and destination preferences) and behavioural criteria (such as ways of travel planning and organisation). Segmentation studies concentrate on motivations (Bieger & Laesser, 2002; McKercher, 2002), environmental attitudes (Hong, Kim, & Kim, 2003; Weaver & Lawton, 2002), information search behaviour (Fodness & Murray, 1997), seasonality (Dolnicar & Leisch, 2003), use of transport (Hsu & Lee, 2002; MacKay, Andereck, & Vogt, 2002) or transport combined with accommodation choice (Becken & Gnoth, 2004).

There are mainly two approaches to tourism segmentation: *a priori* (or commonsense) (Dolnicar, 2004) and *a posteriori* (Mazanec, 2000). In *a priori* studies, the variables for segmentation (e.g. demographic or nationality) are chosen beforehand to identify and partition the market clusters. Additional psychographic or behavioural variables can be added in the

process such as type of trip (McKercher, 2001) and first time vs. repeat travellers (Lau & McKercher, 2004). *A posteriori* studies are often used when there is no former knowledge of the groups. They focus on behavioural and psychographic variables for identifying and classifying the segments – for example, football fans or gay couples. Other variables (e.g. socio-economic and demographic) can later be used to further describe the segments (Hsu & Lee, 2002; Lee, Lee, & Wicks, 2004). In recent years, the *a posteriori* approach has been used more extensively (Woodside & Martin, 2007).

Criticisms have been voiced for both approaches. With regards to *a posteriori* approach, the identified segments can vary substantially depending on the methodological parameters used by the researchers (Wedel & Kamakura, 1998). Johns and Gyimóthy (2002) assert that traditional demographic and socio-economic characteristics such as age, gender and wealth are poor indicators of buying behaviour as they vary by occasion. Psychographic and behavioural variables in themselves are also poor indicators and hence tourism segmentation needs to deploy multiple criteria.

The accessibility market cannot be perceived as homogenous, as it entails diverse sub-markets with dissimilar needs and requirements. In addition to demographic, socio-economical, psychographic and behavioural variables, the *type* as well as the *degree* of disablement should be taken into account. The accessibility market can be divided into seven segments according to type of impairment, namely mobility, visual, hearing, speech, mental/intellectual, hidden impairment and the elderly population (Albrecht, Seelman, & Bury, 2001; ICF (International Classification of Functioning, Disability and Health), 2001). Within each segment, however, the accessibility requirements vary from high to low according to the degree of impairment.

The inclusion of disability for segmentation does not assume a medical model definitional approach. Aligned with the distinction between impairment and disability, as defined in the social model, impairment can be used to distinguish between groups of people with disabilities that have different needs and requirements and acknowledge that every individual has unique abilities and disabilities and it is only the individual who can make as to what they can do and how. In fact, one of the criticisms of the social model is that it does not concede the importance of impairment as essential factor in the lives of people with disabilities (Abberley, 1987; Crow, 1996; French, 1993; Hughes & Patterson, 1997; Morris, 1996). This argument has been made by both theorists calling for the development of the sociology of impairment as well as by people with disabilities (Crow, 1996). By concentrating on disadvantage and exclusion, the focus has moved away from mentioning and even recognising the role of impairment in living experiences. According to Crow (1996, p. 59), 'This silence prevents us from dealing effectively with the difficult aspects of impairment'. Impairments should be taken into account (together with other segmenting variables) when attempting to effectively address and satisfy the needs of the different sub-segments.

Destinations should therefore reconsider how they segment the accessibility market and address some critical challenges. The critical issues that need to be addressed refer to timeliness, relevance and impact (Buhalis, 2003). Timeliness is crucial to ensure that their segmentation is constantly revisited to support long-term strategic planning and to allow amendments to strategy. Relevance is fundamental for destinations to address their ever-changing and increasingly sophisticated market segments. Finally, for destinations to be able to make an impact, segmentation needs to be an integral part of the overall marketing strategy. When product positioning, segmentation and competition are aligned, destinations can convey a distinctive image that is different from competitors and appeals to the right target market (Dolnicar & Kemp, 2009). Advances on ICTs have

progressed segmentation dramatically (Buhalis & Law, 2008). To alleviate the negative conceptual underpinning of segmentation the use of technology is imperative. Traditional segmentation operates under the assumption that marketers should cluster users into groups to better address these segments. In terms of people with disabilities, traditional segmentation means that marketers should cluster people in different groups according to their disabilities. This conveys a medical model understanding of disability which views the individual in terms of disablement, rather than focusing on the range of abilities. It is myopic from a requirements perspective because for instance, not all mobility-impaired users have the same requirements as their abilities vary significantly (different extent of impairment). In addition to type and degree of impairment that results in different sets of requirements, some people experience multiple disabilities (i.e. blind deafness) whereby the requirements become more complicated and cannot be addressed by simply assuming a combination of needs of blind and deaf. Under the social model of disabilities however, people should be able to participate and declare themselves their range of abilities. For this reason, technology is imperative because it initiates dialogue, enables participation and allows people with disabilities to state their requirements (rather than marketers that can only assume user requirements).

Technology-enabled destination marketing

A destination consists of various key components that are branded as a single entity under the umbrella of the destination (Buhalis, 2003), and the perceived image and expectations are very subjective for each prospective traveller (Fesenmaier, Gretzel, Hwang, & Wnag, 2003; Hosany, Ekinici, & Uysal, 2006). While literature has elaborated on decision-making theories of travellers (March & Woodside, 2005; Sirakaya & Woodside, 2005), disability has not been investigated a mediating variable. Not all destinations can attract all types of demand. Market research is significant for the creation of destination image and the selection of the brand values to be communicated to potential but diverse customers (Mackay & Fesenmaier, 2000). Therefore, travel motivations need to be investigated in order to formulate suitable products and services and brands for the right target markets (Gretzel, Fesenmaier, Formica, & O'Leary, 2006). By capturing the distinct requirements of each target market, a more holistic product portfolio can be incorporated in the marketing mix to optimise benefits for both destinations and the target markets.

Destinations and the tourism industry utilise ICTs and the Internet to track their performance (Michopoulou & Buhalis, 2008), maximise their marketing effectiveness and efficiency (Buhalis, 1997; Fesenmaier & Gretzel, 2003), and enhance their competitiveness (Doolin, Burgess, & Cooper, 2002). Technology enables the development and delivery of differentiated tourism products to attract new and sophisticated types of tourism demand (Buhalis, 1997). ICTs provide a whole new environment and ways for conducting business and interacting with the new sophisticated tourists (D'Ambra & Mistilis, 2005; Frew, 2000). Internet in particular, enables a more informed decision-making for tourists by introducing transparency and ease of information gathering (Wang, Head, & Archer, 2000). A number of personalisation approaches including recommender systems (Gretzel, Mitsche, Hwang, & Fesenmaier, 2004; Ricci, 2002) can assist destinations to boost customer satisfaction by providing relevant and personalised content according to market requirements. DMSs have been facilitating the management and organisation of available local resources, supporting seamless destination promotion (Buhalis, 1999). DMOs that are willing to take risks encourage innovation (Gretzel, Yuan, & Fesenmaier, 2000) and result in information provision of differentiated, tailor-made products (Han & Mills, 2005). Destinations can use

technology to retain current and convert prospect customers. Customer relationship management (CRM) packages can ensure personalised treatment for current customers as well as provide an insight regarding future user behaviour according to user profiling displaying common characteristics (Weber & Roehl, 1999). These characteristics are the basis for customer segmentation and each destination can identify which resources match which category of customers (Gretzel et al., 2004).

The disability tourism market has been taking advantage of the Internet to disseminate information on accessible destinations and suppliers. The sources of such information range from governmental and disability organisations offering online information and advice, to comprehensive accessibility schemes (Eichhorn, Miller, Michopoulou, & Buhalis, 2008). Increasingly proactive disabled people develop user-generated content through websites and blogs, sharing their own experience with others. The extensive use of online communities provides the opportunity to destinations and tourism suppliers to strengthen their brand and build relationships in a cost-effective way (Lin & Huang, 2006; Wang, Yu, & Fesenmaier, 2002). However, there is the issue that users do not trust the websites because they feel that the information is not sufficient or reliable (or accessible for that matter); so they use different sources of information (i.e. specialist travel agent). On the other hand, websites (destinations and tourism supply) do not experience considerable traffic and activity online from this market; so they do not prioritise their efforts towards that. Technology is out there readily available; so it is up to destinations and tourism supply to exploit it by allowing users to provide their personalised requirements through technology and they can in turn distribute (or even develop) more suitable products and services for this market. In effect, there are proactive disabled people even as a minority, but destinations and tourism supply need to open the communication channels to tap into this considerable in size but diverse market.

Methodology

To demonstrate the importance of the disability market as well as to identify ways to address their needs through technology, three main research objectives were identified:

- The estimation of the accessibility market size in Europe.
- The identification of the particular informational needs and requirements of the specific target markets.
- The exploration of the potential ways ICTs can enable tourism organisations to attract the disability market and to support destination marketing for this market.

Research on this area is at its infancy and there is limited understanding of the key needs and requirements of these markets. A thorough literature review was carried out, aiming to explore how destination marketing responds to special market requirements and utilises ICTs to fulfil these needs. A comprehensive review of the disability tourism literature identified key themes, issues and challenges. Secondary data were collected from books, academic journals, reports from professional hospitality press and the Internet. Secondary research was deployed to assess the size of the accessibility market in Europe and to demonstrate the different types of disabilities per country.

Primary research concentrated on qualitative research during two workshops and 16 focus groups (Table 1), that involved participants from a range of stakeholders, including National Tourism Boards, Hotel distributors, Tourism Operators, DMSs as well as both organisations and active individuals of the disabled community. Each workshop entailed

Table 1. Focus group outline.

| | Workshop 1, London, UK (number of participants: 68) | | | | Workshop 2, Athens, Greece (number of participants: 131) | | | |
|-------------------------------|---|-----------------------------------|--|---------------------------------|--|-----------------------------------|--|---------------------------------|
| | Round 1 | | | | Round 1 | | | |
| Thematic areas | Destination marketing (FG1) | Disability market analysis (FG2) | Disabled traveller requirements (FG3) | Web personalisation/ CRM (FG4) | Destination marketing (FG1b) | Disability market analysis (FG2b) | Disabled traveller requirements (FG3b) | Web personalisation/ CRM (FG4b) |
| Number of participants | 17 | 16 | 18 | 17 | 20 | 20 | 20 | 20 |
| Composition | | | | | | | | |
| Research and education | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 |
| Technology companies | 1 | 2 | 2 | 3 | 2 | 2 | 3 | 4 |
| Service providers | 3 | 3 | 2 | 2 | 2 | 3 | 2 | 2 |
| Tourism supply/intermediaries | 4 | 3 | 3 | 3 | 6 | 5 | 7 | 5 |
| Legislators | 2 | 1 | 3 | 1 | 2 | 2 | 1 | 1 |
| Disabled consumers | 2 | 4 | 4 | 3 | 2 | 4 | 4 | 5 |
| DMOs | 3 | 1 | 2 | 3 | 4 | 1 | 1 | 1 |
| | Round 2 | | | | Round 2 | | | |
| Thematic areas | Destination marketing (FG1a) | Disability market analysis (FG2a) | Disabled traveller requirements (FG3a) | Web personalisation/ CRM (FG4a) | Destination marketing (FG1c) | Disability market analysis (FG2c) | Disabled traveller requirements (FG3c) | Web personalisation/ CRM (FG4c) |
| Number of participants | 19 | 14 | 19 | 16 | 20 | 20 | 20 | 20 |
| Composition | | | | | | | | |
| Research and education | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 |
| Technology companies | 1 | 2 | 2 | 3 | 2 | 2 | 4 | 3 |
| Service providers | 4 | 2 | 2 | 2 | 3 | 2 | 2 | 2 |
| Tourism supply/intermediaries | 4 | 3 | 3 | 3 | 4 | 8 | 6 | 5 |
| Legislators | 2 | 1 | 3 | 1 | 2 | 2 | 1 | 1 |
| Disabled consumers | 3 | 3 | 4 | 3 | 3 | 3 | 4 | 5 |
| DMOs | 3 | 1 | 3 | 2 | 3 | 1 | 1 | 2 |

eight focus groups investigating four different thematic areas, hence including two focus groups per thematic area. The four primary thematic areas included (1) destination marketing, (2) disability market analysis, (3) disabled traveller requirements and (4) web personalisation/CRM. Participants elaborated on a number of issues relative to access needs and requirements, information required, format and nature of information, use of technology, sources of information, examination of accessibility schemes, assistive technologies and commercial opportunities. Conducting two focus groups per thematic area provided the researchers as well as the participants with considerable opportunity to explore areas researched. Researchers had access to a significantly larger number of experts, obtaining two sets of results which, when compared and analysed, provided great insights. Participants were also provided the opportunity to attend more than one thematic area of expertise and to make a more holistic contribution to the debate.

The first workshop took place in London, UK, with a total of 68 participants while the second workshop numbered 131 participants and occurred in Athens, Greece. The workshops were attended by leading European disability travel experts from more than 17 countries, offering a wide perspective. The participants in the workshops and focus groups consisted of top level disability specialists, travel and destination professionals as well as technology experts. The sample design was purposive and judgmental and it enabled the research team to access considerable expertise and to accumulate specialist in-depth knowledge. Each focus group was kept to a maximum of 20 people and was facilitated by two coordinators and a minute-taker.

Participants were asked to identify the informational needs and requirements according to different types of impairment. This formulated a questionnaire with a list of accessibility criteria that was distributed to the participants, who were asked to rank them according to their importance. The content and structure of the questionnaire was based on the results of the European funded project OSSATE (One Stop Shop for Accessible tourism in Europe), whereby major Disability Organisations throughout Europe accumulated, reviewed and synthesised disabled travellers' requirements as indicated by their registered members. However, because there is a tendency to regard all criteria as very important, especially when designing for all, the percentage of the respondents' answers was used for classification. Hence, the purpose of the questionnaire is fourfold. First, it allowed end users to prioritise their needs, (because Disability Organisations as representatives of people with disabilities are not willing to view any requirement as less important than another, and they feel it is their duty to seek the optimal). Secondly, it informs destinations and tourism supply of the disabled travellers' requirements, indicating how this market can be addressed and preventing unwillingness to engage due to unawareness and fear. Thirdly, it provides a negotiation platform whereby the implementation of accessibility and alterations necessitated from destinations and tourism supply can occur gradually addressing critical, very important and less important requirements accordingly. Fourthly and most importantly, it identifies what is critical for whom as a first step for effective segmentation. One hundred and ninety usable questionnaires were returned out of the 199 in total. Criteria that were in favour of less than 30% of the respondents were tagged as less important, criteria supported by 30% to 70% of the respondents were regarded as important and criteria endorsed by more than 70% of the participants were considered as very important. These criteria were therefore rated by participants as very important, important and less important. Content analysis was used as the most appropriate technique for coding the discussion and comments made. The results of the focus groups and workshops revealed the disabled traveller requirements and the potential benefits of ICT exploitation for destination marketers.

Findings

The European market size for accessible tourism

There is currently no comprehensive overview of the accessibility market size in the European Union (Disability Rights Commission, 2004) to demonstrate the commercial value of these markets. It is critical therefore to provide estimates for the size of the accessibility market as well as to investigate the spectrum of segments within disabling conditions and the particular informational requirements of each sub-segment. This is critical as the disability market is not viewed as a homogenous market. It rather delineates the diversity and complexity of requirements involved to enable participation.

There are over 500 million persons with disabilities globally (Daruwalla & Darcy, 2005). In Europe, one in six persons of the working age population experiences disabling conditions that arise from a variety of impairments and health problems (Eurostat, 2003). Table 2 illustrates that in the European Union, the number of people with access requirements, when both disabilities and age (more than 65 years old) are taken into account, accounts for almost 127.5 million people. The fact that there is a strong and positive correlation between ageing and disability, including the elderly population, provides a more realistic approach to the market estimates (Bloch, 2000; Gerlin, 2005).

The tourism industry has hardly recognised the significance of barrier-free or inclusive design and the considerable market size. It is estimated that the market size will continue to rise substantially over the next 30 years, due to the ageing trend (Gerlin, 2005; OECD – Organisation for Economic Cooperation, & Development, 2002), thus showing the real potential of this market. Hence, this is a significant market that the tourism industry can no longer afford to ignore.

In order to estimate the market size per country and in the EU, Eurostat Statistics were used to draw together types of impairment. Eurostat Statistics cover only individuals of working age (population aged 16–64) and therefore the total number of the elderly population was added. Elderly people often have health problems/disabilities that can be obvious or not, and have from high to low access requirements (Bloch, 2000). Table 3 gives an overview of the market size for accessibility per country of residence and per demand type, related to impaired people and the elderly population. The European population experiencing disabilities or long-standing health problems (aged 16–64) accounts for more than 46 million. Within this particular category, the highest number of people having accessibility requirements is to be found in the categories of hidden impairments (such as heart problems, breathing problems, liver problems, allergies, diabetes and epilepsy) and mobility

Table 2. European accessibility market size (in thousands).

| Market segments (numbers given in thousands) | Total demand for accessibility per type |
|--|---|
| Mobility impaired | 16,067 |
| Visual impaired | 1911 |
| People with deafness/hard of hearing | 986 |
| Speech impaired | 246 |
| Mental/intellectual impaired | 4519 |
| People with hidden impairments | 20,185 |
| Total disability population incl. long-standing health problems (age: 16–64) | 46,593 |
| Elderly population (>65) | 80,903 |
| Total demand for accessibility | 127,496 |

Source: Adapted from Eurostat (2005), Statistisches Bundesamt (2003), US Census Bureau (2005).

Table 3. Market size per country and market segment (27 European countries) (in thousands).

| Country | Market segments (numbers given in thousands) | | | | | | | Total disability population incl. long-standing health problems (age: 16–64) | Elderly population (>65) | Total demand for accessibility per country (in thousands) |
|----------------|--|------------------|--------------------------------------|-----------------|-------------------------------|--------------------------------|-------------------|--|--------------------------|---|
| | Mobility impaired | Visual impaired | People with deafness/hard of hearing | Speech impaired | Mental/ intellectual impaired | People with hidden impairments | | | | |
| Austria | 354 | 23 | 18 | 5 | 37 | 272 | 709 | 1357 | 2066 | |
| Belgium | 536 | 60 | 19 | 9 | 92 | 538 | 1253 | 1807 | 3060 | |
| Cyprus | 24 | 2 | 1 | 0 ^a | 7 | 29 ^a | 63 | 89 | 152 | |
| Czech Republic | 529 | 91 | 18 | 6 | 59 | 766 ^a | 1469 | 1458 | 2927 | |
| Denmark | 321 | 15 | 13 | 3 ^a | 64 | 298 | 715 | 817 | 1532 | |
| Estonia | 77 | 15 | 0 ^a | 0 ^a | 12 | 98 ^a | 202 | 224 | 426 | |
| Finland | 363 | 16 | 11 | 0 ^a | 60 | 657 | 1106 | 831 | 1937 | |
| France | 3764 | 943 | 253 | 49 | 885 | 3832 | 9726 | 9962 | 19,688 | |
| Germany | 1124 ^b | 110 ^b | 137 ^b | 4 ^b | 732 ^b | 1374 ^b | 6161 ^c | 15,577 | 21,738 | |
| Greece | 167 | 38 | 7 | 4 ^a | 67 | 449 | 733 | 2007 | 2740 | |
| Hungary | 242 | 14 | 8 | 3 ^a | 107 | 407 ^a | 781 | 1507 | 2288 | |
| Ireland | 82 | 5 | 6 | 0 ^a | 31 | 172 ^a | 296 | 636 | 932 | |
| Italy | 982 | 90 | 44 | 18 | 263 | 1155 | 2551 | 11,289 | 13,840 | |
| Latvia | 0 ^a | 0 ^a | 0 ^a | 0 ^a | 0 ^a | 0 ^a | 0 | 370 | 370 | |
| Lithuania | 40 ^a | 0 ^a | 0 ^a | 0 ^a | 30 ^a | 119 ^a | 189 | 546 | 735 | |
| Luxembourg | 19 | 2 | 0 ^a | 0 ^a | 1 ^a | 12 ^a | 35 | 68 | 103 | |

| | | | | | | | | | |
|---|----------------|----------------|----------------|----------------|----------------|------------------|--------|--------|---------|
| Malta | 8 ^a | 0 ^a | 0 ^a | 0 ^a | 3 ^a | 9 ^a | 20 | 54 | 74 |
| Netherlands | 1285 | 57 | 54 | 14 | 285 | 1019 | 2713 | 2313 | 5026 |
| Norway | 238 | 18 | 17 | 2 ^a | 52 | 115 ^a | 442 | 681 | 1123 |
| Poland | 0 ^a | 0 | 5094 | 5094 |
| Portugal | 547 | 78 | 20 | 0 ^a | 183 | 574 | 1401 | 1802 | 3203 |
| Romania | 203 | 26 | 9 | 8 | 93 | 563 | 902 | 3255 | 4157 |
| Slovakia | 126 | 8 | 5 | 0 ^a | 30 | 146 | 314 | 643 | 957 |
| Slovenia | 117 | 9 | 3 ^a | 0 ^a | 15 | 132 ^a | 277 | 309 | 586 |
| Spain | 933 | 84 | 41 | 12 | 365 | 952 | 2386 | 7103 | 9489 |
| Sweden | 501 | 21 | 42 | 0 ^a | 96 | 508 | 1168 | 1568 | 2736 |
| UK | 3487 | 186 | 262 | 109 | 951 | 5990 | 10,985 | 9536 | 20,521 |
| Total demand for accessibility per type | 16,067 | 1911 | 986 | 246 | 4519 | 20,185 | 46,593 | 80,903 | 127,496 |

Source: Eurostat (2005), Statistisches Bundesamt (2003), US Census Bureau (2005).

^aIncomplete available data.

^bThe data given for Germany only refer to severe impairments and does not take into account mild to modest impairments. Also hidden impairments only refer to the most severe types of long-standing health problems. It is therefore expected that numbers for Germany are higher than stated.

^cEstimations for German disabled population including mild, moderate and severe impairments, using estimation by Eurostat (2005).

impairments, followed by the market segment comprising visual impaired citizens. Speech-impaired people count for approximately 250,000 in Europe.

Based on the figures that could be obtained from Eurostat, the total market size for accessibility represents more than 127 million European citizens. This includes the people with disabilities as well as the elderly population. Countries that have the highest population in terms of the demand for accessibility are naturally the larger countries in Europe including Germany, the United Kingdom, followed by France, Italy and Spain. By relating the numbers of the total demand of accessibility per country to the total population in each country, an average 25% of the population in each country have some accessibility requirements. Table 4 shows the absolute accessibility demand numbers per country and the percentage of each population that have varying accessibility requirements. Countries that have almost one-third of the population with accessibility requirements comprise Finland, the UK, France, Estonia, the Netherlands, Sweden and Portugal.

Some sets of data at national level need to be viewed with caution due to different perceptions about disability. In some countries, people tend not to state a disability to avoid social stigma, while in others, people declare disability to claim health-related benefits.

Table 4. Percentage of population requiring accessibility (27 European countries).

| Country | Demand for accessibility per country (in millions) | % of total population | |
|-------------------------|--|-----------------------|--------|
| Poland ^a | 5094 | 13.2 | Low |
| Latvia ^a | 370 | 16.2 | |
| Slovakia | 957 | 17.6 | |
| Malta ^b | 74 | 18.6 | |
| Romania | 4157 | 18.6 | |
| Cyprus ^b | 152 | 19.4 | |
| Lithuania ^b | 735 | 20.4 | |
| Luxembourg ^b | 103 | 22.0 | |
| Hungary ^b | 2288 | 22.9 | Medium |
| Ireland ^b | 932 | 23.2 | |
| Spain | 9489 | 23.5 | |
| Italy | 13,840 | 23.8 | |
| Norway ^b | 1123 | 24.5 | |
| Austria | 2066 | 25.2 | |
| Greece ^b | 2740 | 25.7 | |
| Germany ^c | 21,738 | 26.3 | |
| Denmark ^b | 1532 | 28.2 | |
| Czech R. ^b | 2927 | 28.6 | |
| UK | 20,521 | 34.0 | High |
| Finland ^b | 1937 | 37.1 | |
| Netherlands | 5026 | 30.6 | |
| Estonia ^b | 426 | 32.0 | |
| France | 19,688 | 32.4 | |
| Slovenia ^b | 586 | 29.1 | |
| Belgium | 3060 | 29.5 | |
| Portugal | 3203 | 30.3 | |
| Sweden | 2736 | 30.4 | |

Source: Eurostat (2005), Statistisches Bundesamt (2003), US Census Bureau (2005).

^aNo data on types of impairments.

^bIncludes unreliable data for some types of impairments.

^cEstimations for German disabled population including mild, moderate and severe impairments, using estimation by Eurostat (2005).

Additionally, no statistical data are available for people under 16 years of age. This group accounts for about 2–5% of the total population with access needs (Schmidt, 2004). Other citizens have low or moderate access needs for comfort and quality, as well as temporarily impaired, require higher levels of accessibility for a short period of time. Examples include people with a broken leg, obese citizens, parents with push chairs and others that have accessibility requirements but are not included in the table, demonstrating that the actual demand for accessibility in Europe is actually higher. These numbers do not assume that everyone with accessibility requirements does not travel already. In fact, while travel participation rates decline as people age, the seniors’ market is substantial and one of the fastest growing of all demographic segments (Lohmann & Danlielsson, 2004).

This analysis provides an insight and estimation of the accessibility market at an aggregate European level. It demonstrates that the market is substantial and needs to be understood, described and defined to proceed in appreciating its needs and requirements.

Segmenting the accessibility market

The qualitative research demonstrated the complexity in addressing this market. Given the spectrum of people requiring accessibility, focus groups participants (FG2, 2a, 2b, 2c) explained that the market is not homogenous but multifaceted and wide-ranging. The wide range of accessibility requirements entails both challenges and opportunities for the tourism industry. Figure 1 shows that the market has to be understood in both types and degrees of disability/accessibility requirement. This figure represents a continuum of impairment and indicates that the number of markets decreases as the severity of impairment increases.

Although there is a desire and need for mainstream tourism providers to serve the accessibility market, there is a realisation that the higher the access requirements, the more important some accessibility criteria become and the more purpose-build facilities are required (Miller & Kirk, 2002). Experts explained that individuals with low accessibility

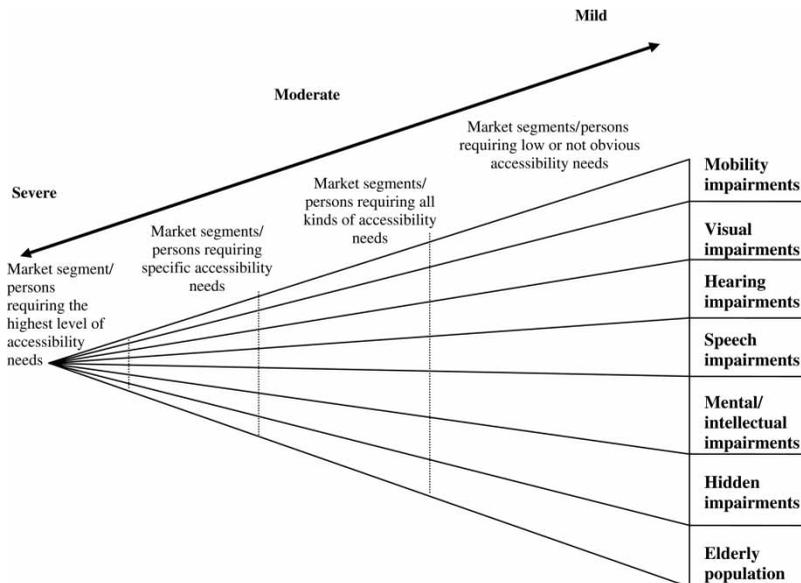


Figure 1. Pyramid of demand types: the continuum of abilities.

requirements may be able to be served by all tourism suppliers, with minor adaptations to their infrastructure or some additional services. People with low access requirements and particularly the elderly do not often see themselves in need of special services that may stigmatise them, and thus purchase tourism products from mainstream providers. For example, an insulin-dependent diabetic traveller may only need the use of a refrigerator to maintain his/her insulin. In contrast, travellers with the highest level of disability may need specialised equipment and facilities. This can be seen in the examples of dialysis-dependent travellers or travellers with severe motor impairments. As one travel agent specialising on accessible holidays highlights:

Mainstream tourism providers are unable to serve disabled people primarily because they are unaware and negligent of the complexity of disabled peoples' needs. It is only specialised providers that are competent enough to deal with the individual customer abilities (FG2a, Table 1)

However, even travellers with very high degree of disability can be empowered to travel, if they know in advance the facilities and services offered, and may be able to request some specific services or adaptations. It is therefore argued that providing comprehensive information on the facilities and infrastructure and understanding better the needs and requirements of this market can enable tourism organisations and destinations to open their offering to the entire market and empower individuals to make up their informed decisions according to their abilities, requirements and preferences.

Specific market requirements

The disabled/ageing population market has three basic requirements, namely:

- Accessibility of physical / built environment.
- Information regarding accessibility.
- Accessible information online.

The first basic requirement of the disabled market is *accessibility of the physical/build environment*. There are a number of barriers that prevent the participation of persons with disabilities (Cavinato & Cuckovich, 1992; Murray & Sproats, 1990; Smith, 1987). As a result of these barriers, disabled persons have less access to tourism experiences than able bodied travellers and often refrain from travelling all together (Turco, Stumbo, & Garncarz, 1998). For example, a wheelchair user will be unable to participate in the travel experience unless his/her wheelchair can go through thresholds throughout his/her travel path. Some countries have introduced legislation designed to make it compulsory for buildings to be accessible to disabled people. Leading examples of national legislation include the UK British Disability Discrimination Act, the US American Disability Act and Australia's Commonwealth Disability Discrimination Act. With regards to the physical environment, there is a plethora of guidelines to improve architectural and enhance accessibility (Americans with Disabilities Act, 1993). While the architectural requests for barrier-free environments requirements have been well established, the information required prior to travel has not been adequately elaborated.

Information regarding accessibility is an equally fundamental requirement for the disabled traveller market. Even if tourism facilities are accessible, unless they provide sufficient and reliable information that meets the needs of disabled tourists, prospective travellers will be unable to engage in the decision-making process (Capability Scotland,

2002). Hence, offering objective information on the accessibility situation is as important as the architectural accessibility.

The third requirement is the display of *accessible information provision online* on the Internet. Different types of disabilities, including sensory, motor and cognitive impairments, utilise several types of assistive technologies, including hardware and software, such as screen readers, voice recognition, alternative pointing devices, alternate keyboards and refreshable Braille displays (Paciello, 2000), to access and interact with online content. Accessible design assists people with disabilities to use the Internet more effectively (Rumetshofer & Wöss, 2004). In order for a website to be accessible, it has to be sufficiently flexible to be used by all of these assistive technologies (Slatin & Rush, 2003). The WAI design principles and guidelines clearly demonstrate what a website should be able to ensure that it is accessible by different users (Web Accessibility Initiative, 2005). However, this does not seem to be the case with most tourism online content, as neither tourism supply (Williams, Rattray, & Grimes, 2006) nor DMOs seem to have embraced and deployed web accessibility principles (Pühretmair, 2004).

Tourism suppliers in the focus groups suggested that regardless of the legislation, many hotel properties have been built before the legislation was in force and fail to address their needs. Similarly many cultural heritage resources and attractions are often too fragile or unsuitable for adaptations. As one mobility-impaired participant explained:

Although I do appreciate that some facilities are not suitable for my needs I cannot understand that many facilities either provide no information in advance or the information they provide is misleading, often due to careless remarks of receptionists or reservation staff. If I had accurate information such as floor maps, measurements and the accessible path to their accessible rooms, I could decide whether to go or not, which wheelchair to take with me if I need assistance when I reach the place. This means that I am now confined to travel only to places that I have had a satisfactory experience in the past or the ones that some of my friends or organisations that I belong to have inspected. (FG3b, Table 1)

Service providers from the focus groups (FG3, 3a, 3b, 3c) explained that the most important information required prior to travel varies according to different types of disabilities. For example, blind travellers have very different needs from those on a wheelchair in both type of information needed and the way it is displayed.

Different types of disability place importance in different criteria while the degree of ability/disability determines the significance of each of those criteria for individual travellers. For individuals, very important criteria to their needs were also termed as 'veto criteria'. For example, wheelchair users with a wheelchair of 85cm could not enter a room that had a door gap of less than that. Table 5 illustrates the critical information required prior of travelling per type of impairment.

Table 5 provides an overview of the most essential information required from each disability sub-segment. However, it does not examine the level of information required according to the degree of impairment. This is only the first step towards a more detailed and in-depth analysis of the requirements of seven disability sub-segments. From the supply side point of view, these requirements should be further divided into smaller segments and future research shall investigate the level of informational and infrastructural requirements for each of those segments.

However, service providers as well as disabled participants made clear that disabled travellers require objective and reliable information so that they can make informed decisions. They argued that disability schemes add little to their ability to judge the level of accessibility of a venue, and therefore they prefer floor plans with dimensions measured in

Table 5. Importance of information per type of impairment.

| Information required prior to travel | Type of impairment | | | | | | |
|---|--------------------|-----------------|------------------|-----------------|-----------------|-----------------|--------------------|
| | Mobility impaired | Visual impaired | Hearing impaired | Speech impaired | Mental impaired | Hidden impaired | Elderly population |
| Information about outdoor areas of the accommodation/attraction | | | | | | | |
| Easily recognisable entrance | ○ | ★ | ○ | ○ | ⊙ | ⊙ | ⊙ |
| Automatic doors at the entrance | ★ | ★ | ○ | ⊙ | ○ | ○ | ○ |
| Ramps around the building | ★ | ★ | ○ | ○ | ○ | ○ | ○ |
| Parking for people with disabilities close to the building | ★ | ⊙ | ⊙ | ○ | ⊙ | ○ | ○ |
| Tactile guide paths for the blind people | ○ | ★ | ○ | ○ | ○ | ○ | ○ |
| Information about moving inside the building | | | | | | | |
| Elevator's length, width, height | ★ | ○ | ○ | ○ | ○ | ○ | ○ |
| Height of staircase | ★ | ★ | ○ | ○ | ○ | ○ | ⊙ |
| Easily recognisable colours | ○ | ⊙ | ○ | ⊙ | ★ | ⊙ | ⊙ |
| Easily readable signs | ⊙ | ⊙ | ★ | ★ | ★ | ⊙ | ★ |
| Ramps inside the building | ★ | ★ | ○ | ○ | ○ | ○ | ○ |
| Tactile guide paths for the blind people | ○ | ★ | ○ | ○ | ○ | ○ | ○ |
| Information about the common areas of accommodation/attraction | | | | | | | |
| All the common areas are on the ground floor | ★ | ★ | ○ | ○ | ○ | ⊙ | ⊙ |
| Location of accessible toilet nearby the common areas | ★ | ○ | ○ | ⊙ | ○ | ○ | ⊙ |
| Layout of common areas' indoors (moving around easily, special signage, tactile paths) | ★ | ★ | ○ | ○ | ⊙ | ○ | ○ |
| Availability of large-print menus in cafeteria/restaurant | ○ | ○ | ★ | ○ | ⊙ | ○ | ○ |
| Availability of 'induction loop' for hearing impaired using a hearing aid (e.g. at the reception desk, in public areas) | ○ | ○ | ○ | ○ | ★ | ○ | ○ |
| Information about the security policy of the accommodation/attraction | | | | | | | |
| Accessible emergency exits | ★ | ★ | ★ | ★ | ★ | ★ | ★ |
| Accessible emergency signs | ⊙ | ★ | ★ | ★ | ⊙ | ⊙ | ⊙ |
| Plan of evacuation for disabled people | ★ | ★ | ★ | ⊙ | ★ | ○ | ○ |
| Availability of alternative fire alarm signal (e.g. vibration pad or flashing light for deaf persons) | ★ | ★ | ★ | ○ | ★ | ○ | ⊙ |
| Information about the accessibility of rooms | | | | | | | |
| There are rooms specially designed for disabled visitors | ★ | ★ | ⊙ | ⊙ | ⊙ | ⊙ | ○ |
| There are accessible twin rooms | ⊙ | ★ | ○ | ○ | ⊙ | ⊙ | ⊙ |
| You can easily reach the plugs and the light switches | ★ | ○ | ○ | ○ | ○ | ○ | ○ |
| The furniture inside the room can be easily relocated by you or your assistant | ★ | ★ | ○ | ○ | ⊙ | ⊙ | ○ |
| It is possible to use your aids in the room (e.g. lifts) | ★ | ○ | ○ | ○ | ⊙ | ★ | ○ |
| You can easily use the furniture inside the room | ★ | ★ | ○ | ⊙ | ○ | ⊙ | ⊙ |
| The floor inside the room is clear of carpets, etc. | ★ | ○ | ○ | ○ | ○ | ★ | ○ |

(Continued)

Table 5. Continued.

| Information required prior to travel | Type of impairment | | | | | | |
|---|--------------------|-----------------|------------------|-----------------|-----------------|-----------------|--------------------|
| | Mobility impaired | Visual impaired | Hearing impaired | Speech impaired | Mental impaired | Hidden impaired | Elderly population |
| Room service is available 24 hours a day | ⊕ | ⊕ | ⊖ | ⊖ | ⊕ | ⊕ | ⊕ |
| There is an accessible toilet inside the accessible rooms | ⊕ | ○ | ○ | ○ | ○ | ○ | ○ |
| Guide dogs are allowed in the rooms | ○ | ⊕ | ○ | ○ | ○ | ○ | ○ |
| Toilet facilities for guide dogs | ○ | ⊕ | ○ | ○ | ○ | ○ | ○ |
| Availability of 'induction loop' for hearing impaired using a hearing aid (e.g. for the TV) | ○ | ○ | ⊕ | ○ | ○ | ○ | ○ |

⊕, very important; ⊖, important; ○, less important.

centimetres, access paths and photographs rather than an accessibility classification. Interestingly, focus-group-disabled consumers explained that people with disabilities often compromise between facilities, features, location and prices. Individuals may often be able to trade-off some disability features for some of the other elements of the product characteristics. For example, as a middle-aged wheelchair user explained:

In my last three trips I compromised in the configuration of the room and bathroom for a better location that would give me easier access to key attractions that I wanted to visit. I had to choose between a perfectly designed room for my needs, which was 5 miles away from what I wanted to visit, and a central hotel, right next to the attractions that was not totally accessible for my needs. Previously I had also compromised between facilities and prices as most disabled facilities are overpriced and beyond my means. For me comprehensive information is critical for being able to decide on those trade-offs. (FG3a, Table 1)

It is critical therefore for this market to provide accurate information to empower their decision-making process. Participants also requested a knowledgeable person at the venue to whom they can address specific questions to their needs, who should be able to answer accurately, intelligently and responsibly, while respecting their personality and dignity. The lack of trust regarding the reliability and accuracy of tourism information provided creates a strong community sense, and peer-to-peer advice is treasured. Although the information may not be intentionally misleading, there is definitely a higher perceived value in the opinion of a user that has more or less similar requirements than other sources of information.

Use of technology to address market needs

All participants in FG1 and FG4 focus groups agreed that technology can be the enabler of destinations and tourism suppliers to address the information needs of the disabled/ageing population traveller market. This is because the Internet provides great opportunity to expand the detail provided with figures, photographs, videos and user generated content. Most disabled participants explained that they depend on the Internet for finding information about accessibility before travelling. They use a variety of sites, including DMSs, suppliers' official sites, information provided by disability organisations and blogs. Photographs, maps and street views add to the accuracy of this information. Often they use search engines to identify other disabled persons and communicate directly asking for advice for specific locations or facilities. Many disabled people upload information,

maps, photographs and videos for their locality increasing the community element. Disabled participants explained that although they are encouraged by the increasing availability of information, they are still frustrated with the fragmentation and unreliability of this information as reflected in the literature (Darcy & Daruwalla, 1999; Stumbo & Pegg, 2005). Combining different accessible travel components is hence very important for cross referencing information (Israeli, 2002). Participants with disabilities emphasised the need for information provision for their 'door-to-door' experience. Hence, accessibility information connecting the origin, the transit area and the destination should be provided, creating a *door-to-door* access map. An elderly blind respondent claimed that:

Sometimes it is not the accessibility of the facility or the destination that makes the trip difficult. It is until you get there. Even if one small part of the path is inaccessible a disabled person can suffer a considerable inconvenience, confidence loss, humiliation or even return back from the trip. (FG3b, Table 1)

Technology companies, DMOs and tourism suppliers in most focus groups (FG1-1c, FG4-4c, FG2a-2b, FG3-3b) emphasised that cooperation with multiple stakeholders and other content aggregators can result in leveraging all relevant information to create the door-to-door accessibility maps. Destinations can make use of recommendation systems that employ intelligent agents and artificial intelligence, to funnel customers through available information to personalised solutions (Werthner & Ricci, 2004). Wireless applications such as third Generation mobile services, WIFI and Bluetooth empower mobile phones and hand-held devices for the provision of location-based services. Through the available technology, disabled travellers can be informed of relevant information based on their current location. Tourism information provision however will not be inclusive unless the accessibility information is easily obtainable from mainstream sources. As one mobility-impaired person emphasised:

I cannot consider tourism being inclusive when I cannot obtain the information I need from the same sources other able-bodied persons utilise. (FG4b, Table 1)

The vast majority service providers argued that disability tourism should no longer be considered as a niche market but should be streamlined. This way, tourists with disabilities are able to acquire both reliable information on accessibility and rich destination information. Many service providers and people with disabilities in the focus groups (FG1a-1c, FG2-2c) concurred that the existing tourism information provision on accessibility is skewed towards mobility impairments. The main reason is that this category is more restricted by the 'veto' principle. Unless there is a fairly flat surface and a wide enough opening for wheelchairs to go through, prospective travellers are unable to travel. Other types of disability have less firm 'vetos'. As a blind participant stated:

We discuss about inclusive tourism information provision, with details on accessibility for the disabled. It seems though that what is included is only information for the mobility impaired, neglecting other types of disablement. Our requirements are often considerably different and hence the industry needs to appreciate the distinctive needs. For example one of my needs is for accommodation establishments to provide suitable facilities for my guide dog-which will not apply to other types of disability. (FG3c, Table 1)

The sub-segments of the disability market have different requirements. User profiling based on enabling users to select their requirements should be deployed to enhance personalised information provision. Destinations can also achieve this through the use of intelligent

agents. Intelligent agents are based on artificial intelligence and neural networks, and their distinctive feature is that in time, they can learn users' preferences based on users' previous choices (Niininen, Buhalis, & March, 2007). The system is informed by the decisions made by tourists so they can provide more relevant results to the search keywords. The accuracy and relevancy of search results provided to the tourist is enhanced by the system comparing choices from other tourists with similar profiles. Similar to recommender systems used by Amazon for suggesting books or music of similar theme/taste, systems may recommend destinations or venues according to the user profile and to similarity with other profiles. Destinations can exclude information about products and services that have no added value to the tourist and recommend the ones that offer appropriate facilities and services.

However, participants with disabilities and service providers explained that the industry should refrain from over segmentation and naïve assumptions of people's abilities. One of the service providers emphasised the need for personalised information:

It is very convenient to categorise people according to type disabilities and presume their needs, but it is also myopic. Often people have more than one type of disability and then the complexity of the requirements cannot be dealt with by simply adding access criteria. (FG4b, Table 1)

Destinations should be able to provide detailed, accurate and comprehensive information to empower individuals to make their own decisions. Advanced personalisation, driven by the willingness of the disabled travellers to provide information about the type and degree of their accessibility requirements as well as their preferences, should offer the opportunity to obtain tailor-made information according to personal abilities and preferences. It should also provide the opportunity to the user to trade-off between facilities, locations, or prices according to their ability and preference. As one of the younger mobility-impaired participant mentions:

I need to judge myself what is suitable for me. I may be a wheelchair user, but I can also use a stick to get over a few steps . . . and I would be more than happy to do so, if that would provide me with a better price or proximity to my point of interest. (FG4a, Table 1)

Therefore, the provision of a personalised service should allow the end-user to make the final choices and decide the compromises between different elements of the travel process. Over time, a CRM system coupled with intelligent agents and recommender systems should be able to appreciate not only the range of accessibility requirements at the individual level, but learn to predict the best course of action and also to learn from others with similar needs and apply to all locations around the world. A customer centric approach is the key to successful CRM and also to deliver content dynamically, based on the CRM/user profile feeds.

Destinations should also utilise loyalty/fun clubs and virtual communities to allow tourists to share views and experiences, communicate dynamically with the industry and fixing problems, thus exploiting the e-word-of-mouth. The disabled population has already established many active online communities sharing views on special interest topics. A young female in a wheelchair explained:

Sharing experiences with people that have similar travel needs is comforting and reassuring, as it diminishes fear and uncertainty prior to travel. Now I can consult numerous users by just accessing the Internet. (FG4c, Table 1)

DMO participants (FG1) explained that destinations that provide suitable and reliable information of their facilities will gain their custom and support in their communities. This is an excellent opportunity for destinations and tourism suppliers to reinforce their

brand, increase reach and awareness and exploit an effective promotion channel, by incorporating traveller review areas in their websites. DMSs therefore should increase accessibility information for all their content as well as provide microsites for addressing the specific requirements of people with disabilities. This will result in the ability to provide a comprehensive overview of the available accessible elements and paths of the destination.

Conclusion

One of the market segments that have been neglected by the tourism industry is the accessibility market. This paper examined the size of the accessibility market in Europe and the needs of its sub-segments. Findings suggest that there are over 127 million people in Europe with access needs and there are three main categories of requirements, namely physical/built environment accessibility, information about accessibility and accessible information online. Extensive qualitative data revealed that each individual in the accessibility market has unique abilities and disabilities, and therefore traditional segmentation techniques cannot be applied because they entail assumptions of users needs. Destinations should utilise available technologies to allow individual users to state their requirements and by doing so, initiate dialogue and enable participation as directed by the social model of disability. Finally, the ways that technology can enable destinations to satisfy these requirements were illustrated, including content integration in the respective DMSs, user profiling, dynamic content delivery based on CRM feeds and peer-to-peer (P2P) areas to include user reviews.

This paper contributes to the theory by synthesising secondary data to establish the significance of the disability market. It also adds to the destination marketing literature by identifying and exposing a unique set of customer segment requirements, and illustrating the appropriate methods to address them. Finally, this research identifies the needs and requirements of the disability market sub-segments, and provides a better understanding of the market needs that will enable participation to the social model of disability. This paper has also significant implications for practitioners. Destinations as well as tourism practitioners can enhance their contextual understanding of the significance of this market. By familiarising with the accessibility market requirements, they can make more informed decisions regarding the strategy and technology they use to increase their market share and revenue.

Future research should focus on the challenges that destinations have to overcome in order to successfully capture this market. For instance, the integration of tourism generic and accessibility-specific content is complex. A profound prerequisite is the collaboration of the stakeholders within a destination that often have conflicting interests. Additionally, the willingness to share content is questionable and the information may remain fragmented and scattered among the different industry players. The technical infrastructure of the involved parties may also raise interoperability issues. Still, if destinations do not utilise technology to maximise their effectiveness and satisfy the needs of the disabled traveller market, they will both miss a great commercial opportunity and will neglect their social responsibility to those markets.

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