Strategic approaches to accessible ecotourism: Small steps, the domino effect and not paving paradise

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Abstract

This study examines how ecotourism providers might best serve the growing accessible tourism market. Ecotourism can be considered a special case of accessible tourism insofar as the challenges experienced by people with disabilities to participate in ecotourism, especially in its 'harder' variants, may be greater than for general tourism, while the ethical basis to ecotourism also presents constraints to providers in terms of the introduction of assistive equipment and infrastructure into remote and often ecologically sensitive environments. Based on in-depth interviews with accessible ecotourism providers and consultants from several countries, as well as a review of current theoretical frameworks, the paper builds a new conceptual model for advancing research and practice in the area. The main finding is that rather than being hierarchical, the linkages between the constraints and barriers to ecotourism are fundamentally relational. This points to the need to take account of a complex and integrated network of connections when making provision for accessible ecotourism, which in turn favours providers adopting a strategic approach. Three potential strategic approaches are presented: cumulative, in which 'small steps' are taken, compromise, which focuses on addressing the 'domino effect', and, comprehensive which aims to achieve universal access while not 'paving paradise'.

Keywords: Accessibility; Barrier; Constraint; Disability; Ecotourism; Strategy

1. Introduction

Accessibility for people with disaibilities (PwDs) has been discussed in the tourism literature since at least the 1980s (Pigram, 1984; Smith, 1987), albeit mainly in a conceptual way (e.g., Darcy & Dickson, 2009; Darcy et al., 2010, 2020; McKercher & Darcy, 2018). The few empirical studies that have been undertaken have mostly been quantitative (e.g., Bi et al., 2007; Chikuta et al., 2017, 2018; Darcy, 2010; Shaw & Coles, 2004). Qualitative studies, meanwhile, have usually been based on interviews with tourists or data scraped from user-generated website content (Poria et al., 2010; Randle & Dolnicar, 2018; Yau et al., 2004). These studies have almost all been demand-focused: the voices of tourism providers and accessibility consultants have only rarely been heard (e.g., Ozturk et al., 2008).

Research into accessibility in tourism has also focused mainly on mass tourism activities (e.g., Kim & Lehto, 2012, 2013), or specific industry sectors such as hotels (Darcy, 2010; Navarro et al., 2014; Poria et al., 2011) or air travel (Poria et al., 2010). Studies of alternative forms of tourism such as nature-based tourism (Chikuta et al. 2017, 2018) and ecotourism (Gura et al., 2020; Ray & Ryder, 2003) remain rare. There is widespread agreement, nevertheless, that the context of ecotourism is profoundly different to that of mass tourism on both ethical and operational grounds (Fennell, 2020), and that there is even greater scope for the goals of ecotourism and accessibility to come into conflict (Gura et al., 2020). This raises an ethical problem that has hitherto rarely been considered: how far should those who manage ecotourism destinations mediate access for PwDs? (Chikuta et al., 2018). For some (e.g. Bell, 2019), the failure to provide universal access simply serves to reproduce the 'ableist' social discourse that discriminates against PwDs. Proponents of nature conservation, meanwhile, tend to argue that the preservation of natural environments should take priority, even if this implies severely limiting public access (Bricker, 1995). Others recommend striking a balance between these two ideals, although they generally do not specify what that balance should be or how it can best be achieved (Donlon, 2000; Huber, 1992).

Accessibility can be considered to be a function of the constraints and barriers would-be participants face. This paper therefore seeks to investigate those constraints and barriers in the context of PwDs taking an ecotourism trip. In doing so, a framework for better understanding and responding to their needs and wants will be presented, enabling ecotourism providers to develop their facilities and activities to serve this emerging market. The proposed model brings together two theoretical frameworks that are often considered in isolation: the social model of disability and the leisure constraints model. The resulting conceptual model is then used to identify the basis for three broad strategic accessibility approaches that ecotourism providers can adopt: cumulative, comprehensive and compromise.

It is important to note from the outset that this paper advocates the need to recognise the diversity of disabilities among PwDs, which includes physical disability (e.g. mobility issues, tall or small stature, obesity), sensory disability (e.g. sight or hearing), and intellectual disability (e.g. developmental disabilities, mental illnesses such as dementia, special educational needs). Added to this are the elderly, many of whom have similar disabilities to these, and people who are temporarily disabled (e.g., broken limbs), young children and pregnant women (Budd & Ison, 2020). Intersectionality is also important, as many individuals

have multiple disabilities and, as such, would be included in more than one of these groups. The key point here is that PwDs have various presentations of disability and, as such, will face different barriers and constraints to their full participation in ecotourism.

2. Literature review: Industry and research perspectives

The lack of academic attention given to accessibility issues in the ecotourism context might be considered surprising. First, engagement with nature is widely considered to be a defining feature of ecotourism. Natural areas may be fragile and sensitive to change, including interventions intended to provide disability access that may conflict with the intrinsic values of these places (Gura et al., 2020). Second, ecotourism has an ethical dimension that cannot easily be detached from its definition (Fennell & Garrod, 2021). These features are reinforced in a widely accepted definition of ecotourism as "travel with a primary interest in the natural history of a destination. It is a non-invasive and participatory forms of nature-based tourism that is built around learning, sustainability (conservation and local participation/benefits), and ethical planning, development and management" (Fennell, 2020, p.20). This definition builds off previous work arguing that genuine ecotourism must have a clear ethical orientation that distinguishes it from other forms of tourism, particularly those that use greenwashing and 'eco-sell' (Wight, 1993). This ethical orientation embraces the desire to provide access to natural areas and ecotourism for everyone, regardless of their background or (dis)ability. Fennell and Garrod (2021) address this topic by suggesting that ecotourism operators should emphasise duty and justice instead of simply following accepted business practices. They go on to argue that achieving 'best practice' can be limiting as a strategic goal of ecotourism if the needs and interests of PwDs are not met. Indeed, what is good for business is not always intrinsically good for PwDs.

Such ethical reasoning does not, however, always prevail in ecotourism providers' decision making, many of whom operate on tight margins (Zhang & Cole, 2016). Investment in new equipment, facilities and practices to meet the needs of disabled clients may be deemed costly and perceived unnecessary by providers. The primary motivation for ecotourism providers to address the needs of PwDs has, therefore, often been as a response to regulation rather than winning customers (Chikuta et al., 2018). Many countries have indeed introduced legislation to ensure that there is a minimum level of provision for PwDs at private buildings, such as hotels, and in public open spaces, such as national parks. A presentation of the accessibility legislation in force in different parts of the world is clearly beyond the scope of this paper. It is important to note, however, that such legislation varies greatly in design and enforcement, and that ecotourism providers must, in any case, decide how far they are prepared to go beyond these minimum requirements (Schweinsberg & Darcy, 2021).

2.1. A strategic approach to implementing accessible ecotourism

Studies indicate that tourism providers are often reluctant to host PwDs because doing so may incur further costs in the form of additional design features, assistive equipment, management time, and customer service (Ambrose, 2012). It is argued, for example, that accessible rooms are simply uneconomic for many hotels (Darcy et al., 2010). Some providers even consider them to be a waste of productive space because non-disabled guests often refuse to stay in them (Darcy, 2010).

Tourism providers therefore face an important choice in deciding whether, and if so how, they develop their accessible offering (Buhalis & Darcy, 2010). This paper argues that adopting a strategic approach is likely to achieve the best solution for both ecotourism providers and PwDs. Indeed, the importance of taking a strategic approach may even be greater in the ecotourism context, given the potential for the associated investments and practices to conflict with the environmental and ethical goals of ecotourism. Neither the specific strategies available to ecotourism providers, nor the decision logic needed to choose effectively between them, have yet, however, been fully articulated in the literature.

2.2. The social model of disability

The previous literature has long debated how the social model of disability (Oliver, 2013) can best be applied to tourism (e.g. Randle & Dolnicar, 2019; Shaw & Coles, 2004; Smith, 1987). The social model is based on the notion that PwDs are not prevented from taking an equal part in every aspect of society by their so-called 'impairments' but by society itself, which imposes barriers to participation that must be overcome by PwDs if they are to participate fully (Garrod, 2021). Instead of working to reduce or even eliminate such barriers, society allows them to remain, often by making excuses for why they cannot or should not address them. These include not only the financial costs involved but also the potential consequences of human intervention in sensitive natural environments. The social model, however, argues that failure to provide access conflicts with the United Nations' (2006) Convention on the Rights of Persons with Disabilities. This makes accessibility unavoidably an ethical issue.

Elaborating further on the social model, researchers have generally divided the social barriers to tourism into three groups: physical, attitudinal and informational (Randle & Dolnicar, 2019). Being on the supply side of the market, these barriers can only meaningfully be addressed by tourism providers.

Physical barriers refer to the features of the built and natural environment that prevent full access by PwDs (Poria et al., 2010). The literature has tended to focus on the former, particularly with respect to buildings (e.g., stairs, toilets) and vehicles (e.g. aircraft, trains). Discussion of barriers relating to the natural environment is far less common. Examples include steep ascents and descents, difficult terrain (such as loose rocks or sand), and water courses that need to be crossed (Smith, 1987). These are all highly relevant to the ecotourism context, where contact with the natural environment is indisputably part of the experience. The relationships involved are undoubtedly complex and still poorly understood. How far providers can address the physical barriers to accessibility thus remains a question of considerable importance (Chikuta et al., 2018).

Attitudinal barriers derive from the assumptions people make about disability. These can result in discrimination against PwDs, not only in terms of the lack of facilities to meet their needs and wants, but also in how people behave towards them. PwDs are variously overlooked, stared at, 'Othered', condescended to, and treated with disrespect. Ignorance is often at the root of such attitudes (Randle & Dolnicar, 2019). It can be argued that tourists without disabilities benefit from 'social privilege' (Bialka & Morro, 2017), preventing them from understanding the barriers PwDs face to participating in everyday activities.

Informational barriers impede PwDs in accessing the right information in the right place, at the right time, in the right amounts. PwDs will typically gain information about the facilities and provisions available at a given location from the Internet (Buhalis & Michopoulou, 2011), but websites are not always well designed for use by PwDs, particularly but not exclusively those who have visual disabilities (Fennell & Garrod, 2021). Insufficient access to reliable and accurate information is likely to cause users to make poor decisions about the suitability of the site of activity in meeting their needs. Access to information is particularly important at the planning stage of the holiday, as PwDs rely heavily on public information in making decisions about almost every aspect of their holiday (Randle & Dolnicar, 2019).

2.3. Leisure constraints

Research on leisure constraints began in the 1980s (Wade, 1985; Witt & Goodale, 1981) and intensified through the 1990s (Jackson, 1990; Jackson & Dunn, 1991). Crawford et al. (1991) formulated a model of leisure constraints based on three types of hierarchical constraint which would apply to anyone, regardless of whether they have a disability. Moving from the most proximal to most distal, these are intrapersonal (e.g., stress, socialisation, perceived competence), interpersonal (e.g., sex-role attitudes of spouses, lack of an appropriate partner to accompany them) and structural (e.g., family financial resources, climate, scheduling of work time). McKercher and Darcy (2018) argue that 'interest' should be recognised as a fourth leisure constraint, e.g., people lacking interest are unlikely to be induced into leisure participation (McKercher & Chen, 2015). Unlike the social barriers to tourism, these factors operate on the demand side of the market in that they condition the demand for tourism. Use of the leisure constraints model is well-established in tourism research. Investigating general visitors to natural areas in Michigan, for example, Pennington-Gray and Kerstetter (2002) found that money and time were the most important constraints. Other tourism studies have focused on income and distance constraints of different Swedish populations in deciding to visit mountain environments (Fredman & Heberlein, 2005), constraints related to taking cruises (Hung & Petrick, 2010), and the relationship between leisure constraints and tourism seasonality (Hinch & Jackson, 2000).

Research linking leisure constraints, tourism and disability, meanwhile, remains limited. Much relates to seniors, rather than the disabled population specifically (Lee & Tideswell, 2005; Patterson, 2006). In a rare study of the leisure constraints of PwDs, Tao et al. (2019) found that the severity of disability among PwDs with limited mobility in China did not affect their perception of constraints to leisure activities.

2.4. Linking leisure constraints, tourism and the social model of disability

While few studies have used the leisure constraints framework in the context of PwDs, fewer still have attempted to integrate the constraints and barriers to tourism by PwDs into a unified conceptual model. McKercher and Darcy's (2018) framework arguably represents the best attempt to date. As seen in Appendix A, it organises the leisure constraints and social barriers to tourism hierarchically into four tiers: those common to all people (these all being constraints), those common to all PwDs (these being social barriers), those associated with a certain type of disability, and those unique to an individual. This framework can be considered

helpful in that it clarifies that the social barriers do not affect all PwDs equally. It also incorporates leisure constraints.

One problem with this model, however, is the explicit assumption that leisure constraints affect everyone equally. This might be a fair assumption in relation to the *types* of constraints all people face. It is more difficult to agree, however, that the *manner in which* these constraints present themselves and constrain participation does not vary between disabled and non-PwDs. Such considerations can be vital in the design, marketing and operation of tourism facilities and activities to meet the needs and wants of PwDs.

Another problem with the model is that it assumes that the different types of constraint or barrier, at each of the various tiers, are distinct and independent from one another. If this is true, then addressing the various constraints and barriers would be a relatively straightforward matter, as they could be tackled in a sequential manner. If it is false, however, efforts to address any given barrier or constraint will be less effective, perhaps even ineffective, due to their interdependence. As such, the framework does not provide sound guidance to designers, marketers and operators in prioritising the investments needed to serve the accessible tourism market.

Finally, the potential for constraints and barriers to interact with one another has not been widely recognised and need, therefore, to be considered in order to fully justify a model that attempts to integrate the two. This paper therefore aims to develop a model that better integrates the leisure constraints and the social barriers to tourism. The model will then be used to identify and critically compare a range of accessible ecotourism strategies.

1. Methodology

This study employs grounded theory as a means to inform the development of theory. In doing so, it attempts to integrate the theories of leisure participation, accessibility and ecotourism as they relate to the experience of PwDs who wish to visit ecotourism sites and engage in the activities they offer. In-depth, semi-structured interviews allowed the researchers to gain a more nuanced perspective on the issues concerned, particularly in terms of how they relate to one another in the practical context of ecotourism.

Theoretical sampling was used to identify interviewees best able to illuminate the subject at hand (Teddlie & Yu, 2007). At the end of each interview, each interviewee was asked to identify further individuals who might agree to being interviewed, thus allowing a snowball sample to be collected. The pool of interviewees comprised owners and/or managers of ecotourism sites and activities, officers of ecotourism destination marketing organisations, and professional consultants with expertise in ecotourism and accessibility (Table 1). Interviews were undertaken by videoconferencing in July 2020 and again in January 2021. This was a deliberate strategy because the COVID-19 pandemic had forced many tourism organisations worldwide to close temporarily in the summer of 2020.

** Table 1 near here **

Open questions were used to allow interviewees to take the initiative, with the interviewer interjecting only to give prompts when the interviewee stopped speaking. A list of follow-up questions was used to encourage further elaboration. These were structured in order to relate the views expressed by the interviewee with the findings of a previously undertaken content analysis of ecotourism websites. All questions were asked in the same order in the interests of consistency. A two-way, discursive approach was used, which helped to achieve a rich dataset for further analysis.

Each interview was digitally recorded and subsequently transcribed by the interviewer. Their average length was 42 minutes. Open coding was used to analyse the scripts, as suggested by Homburg et al. (2017). New understandings then emerged recursively as the two researchers independently read and re-read the scripts. The researchers then compared notes and the codes and themes were adapted to accommodate new understandings.

After 14 interviewees had been coded, theoretical saturation was deemed to have been attained, as no new codes or themes were needed to accommodate the views of the last interviewee. This number of interviews is consistent with widely recommended practice in qualitative analysis (Guest et al., 2006).

A synthetic approach was employed to analyse the interview material, beginning with the development of open codes to attempt to capture broad themes. The relationship between these codes was then explored using axial coding (Moghaddam, 2006), which allowed a schematic model to be developed to summarise them. A coding map is provided in Table 2.

** Table 2 near here **

The model underwent several iterations before the axial codes were deemed stable. Figure 1 presents this model. As per Homburg et al. (2017), the researchers then employed selective codes to label it.

** Figure 1 near here **

Qualitative research does not rely on the principles of reliability and validity to establish its rigour: rather it relies upon measures of trustworthiness. These are conventionally divided into five indicators: authenticity, credibility, transferability, confirmability and dependability (Lincoln & Guba, 1985). Appendix B outlines how these criteria were addressed in this study.

4. Results

The study results are presented in four sections, relating to the first four research questions set for the study: (i) leisure constraints to ecotourism, (ii) linkages between the leisure constraints to ecotourism, (ii) links between social barriers to ecotourism, and (iii) links between leisure constraints and social barriers to ecotourism.

4.1. Leisure constraints in tourism

Interviewees discussed examples of all three of the traditional triad of categories of leisure constraints: intra-personal, inter-personal and structural. The study did, however, note four features in the context of ecotourism that warrant further elaboration.

First, while McKercher and Darcy (2018) argue that leisure constraints apply to everyone, whether they have a disability or not, the interviewees argued that the incidence of such constraints in the ecotourism context tends to be uneven across society, with a systematic bias against PwDs as a group. For example, PwDs tend to have a lower employment status (United Nations, 2021). This can make it harder to afford ecotourism holidays, which can be relatively expensive. Helga, for example, observed that PwDs:

> … don't have money to be able to, you know, get on a bus. It's hard enough for them to survive on a day-to-day basis.

It can therefore be argued that leisure constraints are more likely to prevent, or at least deter, PwDs from taking ecotourism trips in comparison to non-PwDs.

Second, while leisure constraints clearly apply to ecotourism in general, their impact is uneven among different types of ecotourism. As well as to involve longer trips with more physical challenge and to emphasise deep personal interaction with nature (Weaver, 2005), 'harder' forms of ecotourism tend to take place in more remote locations that are harder to reach by public transport (Fennell, 2020). This is relevant because PwDs tend to rely disproportionally on public transport. It also often takes place in harsher natural terrains, which are harder for people with additional mobility needs to negotiate. As Albert noted:

> In terms of terrain, flatter places like savannah and coastal areas are good places for those with physical disabilities, whereas mountainous terrain can be just too difficult.

Georg, meanwhile, observed that:

> A lot of our ecotourism activities are in remote places with limited infrastructure, rough trail networks, things like that.

'Softer' forms of ecotourism, in contrast, tend to be shorter in length, less physically challenging and to involve shallow interactions with nature (Weaver, 2005). They may therefore be little different to conventional tourism in terms of the constraints faced by PwDs. This is not recognised in McKercher and Darcy's (2018) model, which tends to treat all tourism as the same

Third, the interviewees did not support McKercher and Darcy's (2018) proposition that interest is a major constraint in the ecotourism context. On the contrary, they argued that PwDs tend to have the same motivations as anyone else. As Frida observed:

> Oftentimes, it wasn't an issue they've had since birth, it was something that happened at some point in their life. Nothing has changed: they are the same people as before.

Dora suggested that the reason we do not see more PwDs taking ecotourism holidays is simply that the provision to meet their demand is not currently there:

> I think people with disability are forced into choices that are available, because that's all there is, there's no selection that would give them a selection option.

If there were more opportunities for PwDs to take ecotourism trips, we would see more disabled ecotourists: there is evidently ample latent demand in the system.

It was also argued that PwDs may be even more motivated to escape to nature because, as it was pointed out by Nina, they may have more to escape from, due to the restrictions their disabilities place on their daily lives:

> They really just need to have a break from that part of their life that's obviously more complicated than normal – than, you know, than non-disabled guests.

As such, interest would not seem to be an important constraint to ecotourism for PwDs.

Fourth, an additional constraint may exist that has previously not explicitly been noted. This relates to the confidence a disabled person can have in booking facilities and activities to meet their needs. It was noted that PwDs need to spend a lot of time planning each stage of a trip to ensure that it is will be possible, convenient and comfortable for them. As Elke noted:

> I have heard from some of my clients that going on a trip is almost more trouble than it's worth because of the amount of planning that's involved and the knowledge that there *will be* accessibility problems.

Such planning can be time consuming and frustrating, particularly when the information required is not readily available, out of date or simply wrong. According to Nina:

> I think there's a big fear for physical disabilities that they are going to get somewhere and it's going to be unsuitable. They've just driven three hours, you know, then they can't go out or she can't go to the toilet properly … so [they require] confidence.

Ecotourism trips are often difficult to plan because they frequently take place in remote areas where the travel and tourism infrastructure can be thin. Finding suitable transport options and good accommodation can be particularly difficult problems, on top of identifying ecotourism activity providers who are equipped and willing to take disabled clients. This requires PwDs to have a greater level of confidence in the planning their ecotourism trip than may be the case with general tourism.

4.2. Links between leisure constraints

The interviewees noted important links between leisure constraints as they are applied to tourism generally and to ecotourism in particular. Concerning intra-personal constraints, for example, it was noted that the constraint of lack of perceived competence may be eased if the trip is taken with a family member or carer, lack of which is normally classified as an inter-

personal constraint. This, however, may not be possible if the disabled person lacks the income to pay for a carer to accompany them on their trip, which would be classed as a structural constraint. Frida noted that needing extra support inevitably implies adding to the cost of the trip:

> We have many activities in our region and there are quite a few that I couldn't afford to do without a disability, let alone needing that extra support.

Calvin, meanwhile, noted that people who normally travel with a guide dog may not take their dog on holiday with them, taking a carer instead:

> The people that were able to travel abroad were typically people that also had someone that travelled with because if they're going to Spain or somewhere like that, they'll leave the guide dog at home because it's too hot.

The noted tendency for leisure constraints to be inter-related included the proposed new variable of confidence. It was pointed out, for example, that it could be particularly difficult for a person with a disability interested in an ecotourism trip to have the confidence to track down the information needed while at the same time keeping within a modest budget. Indeed, Beata noted that:

> It's a first thing that needs to be known about a tour: what they are going to do, where they're going to live, how they can go to different places, if they need to have like, assistance with them, or if we are going to help them, so then it's very important with information and with the dialogue between the company and the person.

It is therefore important to note that leisure constraints may not be as distinct from one another as McKercher and Darcy's (2018) model might suggest. This means that attempts to address them independently of one another may be inefficient or even ineffective. It also implies that while specific constraints may in themselves be severe, even debilitating, they can be eased by working to reduce other constraints. The interpersonal constraint of the lack of a family member to travel with might be eased, for example, by reducing the structural constraint of lack of disposable income (for example, by waiving participation fees for accompanying persons).

4.3. Links between social barriers

Linkages between social barriers have largely been ignored in the literature. They are important, however, because they may frustrate or facilitate measures intended to address them. For example, the provision of good information on what is involved in an ecotourism activity may help guests to clarify what additional equipment, modifications or practical assistance they will need to overcome the physical barriers to participation. For example, Luther, who manages ecolodges built on high platforms in the forest called 'tree houses' noted that:

> The interesting thing for us – and I don't think we've got it quite yet – is marketing. People just don't think, you know, there's a tree house I can get in it.

This is especially relevant given that few tourism providers have the financial resources needed to address all the social barriers related to their facilities and activities. This requires them to make choices about which barriers to focus upon, which effectively determines whose needs will be met and whose will not. They could, for example, work to ensure that the information customers receive ahead of the trip is clear, accurate and tailored to their needs. As Georg noted, a good website is one that says:

> '… here's what our average trip includes … here are the physical demands of the trip, and what you have to be capable of'. Then it talks about some ways that they can kind of scale or adapt tours to suit specific needs.

In this statement, Georg is suggesting that the perceived physical barriers to undertaking an ecotourism activity might be reduced by addressing the informational barrier associated with an under-developed website. The social model tends to present these two barriers as being independent, while in practice they are related.

Second, it was suggested that attitudes towards disability can shape the amount and quality of information made available. Many ecotourism providers suggest that PwDs should contact them in advance to discuss their needs and see if adjustments could be made to allow their participation in an activity. Albert, an ecotourism-disability consultant, argued that:

> I would say that in this information age, it's not that difficult because you can easily make phone calls if you can't see and connect with local … owners and get all the information you can.

Tourists may, however, prefer not to contact a provider ahead of arrival because they worry that the provider may simply dismiss the possibility of their participation either as a safety risk or an additional cost in terms of time and effort. As Elke, who is herself disabled, noted:

> If I had called and said, 'Hey, I'm visually impaired and I'd like to go hiking with you', he might not have been as welcoming, not because he's not a welcoming person, but because he wouldn't have known whether or not he could meet those needs.

Another example is when a tourism provider fails to optimise search terms for their website to enable PwDs to find facilities and activities they can use. Better use of search terms would make searching the internet more efficient, achieving better connectivity between supply and demand. Johan, an ecotourism-disability consultant who uses a motorised wheelchair, noted that when auditing ecotourism providers' websites, often he would use a search engine to test them:

> I put in 'wheelchair accessible' and there was nothing. So, I'll say to them, you need to fix up your search engine, if someone put in 'wheelchair-accessible track' or 'wheelchair-accessible path', it's got to recognise that.

Third, it was noted that taking practical steps to address the physical barriers to participation by PwDs can help to change attitudes of members of staff, other tourists and, indeed, PwDs

themselves. Helga discussed the difficulty she had as a disabled person in being expected to join groups consisting of tourists without disabilities for a wilderness hike. Being slower than the rest of group frequently caused bad feelings, while her own satisfaction from the hike was impaired by always feeling the need to speed up to please the others:

> If it's group tours, and, you know, people feel like their tour's being impacted by somebody, you know, another guest on the tour.

Interviewees argued that addressing the physical participation barriers can help change attitudes because doing so typically involves making adjustments to facilities, such as ramps and Braille signage, to normalise the presence of PwDs. Helga summed this up in saying:

> A lot of people place all the emphasis on facility design: on the actual physicality and spacing of the area. And that's great but I think there is an opportunity for facility design also to change attitude.

Such comments suggest that not only can changing attitudes help to encourage ecotourism providers to address the physical barriers associated with their sites and activities, but also that addressing the physical barriers to participation can help to address attitudinal barriers. The effect can thus run in either direction.

4.4. Links between leisure constraints and social barriers

Interviewees also indicated important linkages between the four leisure constraints and three social barriers. These have not widely been discussed in the literature. The existence of linkages suggests that the consideration of leisure constraints and social barriers in isolation from one another is unlikely to suffice in making ecotourism sites and activities fully accessible to PwDs.

Links were noted, for example, between informational barriers and the self-perception of competence. Interviewees noted that the promotional materials used by ecotourism providers invariably did not feature PwDs, either as guests or participants. Doing so could help relieve any mismatch between the expected level of challenge and their perceived self-competency. Helga observed that:

> A key thing is they want to see themselves there. You can, you know, stop showing all able-bodied people in your marketing, right?

The same holds true for text relating to facility adaptations. Indeed, if this is missing, PwDs will have to rely on visual images to pick up clues. Luther went further to suggest that when text did exist, it tended to be functional rather than inspirational:

> I have quite a strong opinion: our connection with product and operators through marketing to people with disabilities is crap. So far, it's all about some symbols on websites. I see very little evidence of storytelling – how we inspire what people can do – it's more imagination than it is reality very often.

A second example of a linkage between constraints and barriers was that overcoming attitudinal barriers may help in turn to address a perceived lack of competence on the part of PwDs. If staff are willing to be flexible, there are often ways to adapt the experience to enable them to participate fully. Indeed, Elke observed that:

> I think there's sometimes an expectation that people who want to go into the back country are young, fit and capable, and, in many cases, they are – but there's a niche market there as well for [disabled] people.

Provider attitudes can thus shape a disabled person's perception of their competence to undertake, and enjoy, ecotourism experiences. If these attitudes can be shaped, the disabled person's perception of their competence may be enhanced, even if their actual competence has remained the same.

Third, overcoming informational barriers may instil confidence. Planning for a trip can be a lengthy and tedious task for a disabled person, especially if they have complex needs. Providing good-quality information, in the right amounts and at the right time, can serve to ease this constraint. Beata's view was that:

> … if you're looking from the [point of view of] people with disabilities, the first things that need to be known about the tour are, what they are going to do, where they're going to live, how they can go to different places, if they need to have assistance with them, or if we are going to help them. So, it's very important, with information and with the dialog between the company and the person.

In this way, lack of confidence, a leisure constraint on the demand side, can be addressed, at least to some extent, through the reduction of an informational barrier on the supply side. Nina noted that:

> I think there's just not enough standardisation of what people are offering, and you can't trust that what they're offering is actually there.

Publishing more information will not, in itself, increase potential visitors' confidence that the provision will meet their needs. Such information needs to be more fit for purpose. Some ecotourism sites are now, for example, publishing videos to help demonstrate the accessibility of their site and activities (Fennell & Garrod, 2021). Others are making 'access packs' available on their websites. These often include photographs, for example of bathrooms, and physical measurements, for example of door widths for the benefit of wheelchair users (Fennell & Garrod, 2021).

A fourth example discussed in the interviews was the linkage between attitudes and the perception of structural constraints, such as lack of income. Tourism providers may be reticent to make the investments necessary for accessible tourism because of perceived financial risk, which is enhanced by the perception that many PwDs have low spending power. Georg noted that:

> A lot of organisations and businesses aren't in a position to make that $30,000 investment for what could potentially – depending on the tour or the business – not have a justifiable ROI.

Johan, meanwhile, related a candid story that revealed an attitude he considered to be widespread among ecotourism providers:

> A disabled visitor said [to an ecolodge manager] 'You just need to fix a couple of things in your room and it'll be good', [who replied] 'Why should we bother? We don't make enough money out of you guys to really justify it.

It was even suggested by Beata that making too overt reference to their provisions for customers with disabilities in their marketing materials and websites may be counterproductive because non-disabled guests may be uncomfortable sharing facilities and/or activities with PwDs.

> I think we had a big problem with our homepage. People said, 'you should write everywhere that you are accommodation for PwDs'. But then it was, like, people that don't have any disabilities, they thought that it was just accommodation for people with disabilities. So, we frighten them away.

5. Conclusion

Based on in-depth interviewees with key providers of ecotourism for PwDs from several countries, the research presented in this paper developed a new theorisation of the accessibility-tourism nexus, based on the complex network of connections taking place between leisure constraints (on the demand side), barriers to participation (on the supply side), tourism types, and forms of disability. This can be seen as an advancement upon the less nuanced, hierarchical model proposed by McKercher and Darcy (2018).

A new conceptual model is accordingly presented in Figure 1, which recognises that PwDs must make decisions around the types of tourism available to them. This is frequently made difficult by the inherent complexity of the product. Many decisions are interlinked, such as the choice of destination, when to travel, travel mode, type of accommodation, where and what to eat, what attractions to visit, and so on (Fyall & Garrod, 2005). Decisions also need to be made at different points in time, some well ahead of the trip, some during it, and some after the tourist has returned home (Moutinho, 1987). These decisions are often compounded in the ecotourism context due to its frequent geographical remoteness and the challenges inherent to different terrains, climate conditions, and so on.

Ecotourism providers can continue with an ad hoc approach to addressing these issues or they can adopt a strategic one. This foregoing discussion indicates that a strategic approach is likely to be the most successful. The question remains, however, what shape this strategy should take. Based on the interviews conducted for this present study, three possible strategic approaches were identified. By their nature, these strategic approaches are mutually exclusive, although a single provider might employ different ones in different contexts, and over time, as they respond to the influencing variables shown in Figure 1.

5.1. Cumulative

The distinctive element of this strategy is that it establishes a ranking of priorities. Few ecotourism providers will have sufficient funds to make all of the investments needed to achieve universal access to their sites and activities, but they can, as Beata described it, take a series of 'small steps':

> I think a tip could be that you don't need to fix everything. You can just maybe fix one bed in your accommodation or you can fix like one room or you don't need to think that you need to make everything adjustable or everything is possible. Because then it feels very big and then it may be frightening and then you're just, 'okay, I don't want to do this'.

This strategy recognises that unless it is a legal requirement to act, choices will need to be made in priority order according to the provider's specific aims and objectives. A provider might estimate the financial rate of return of a range of options and start with those that are the best investment. This strategy may be a resource-intensive one to adopt, however, since it requires the evaluation of a range of possible investments open to the company, some of which may not even be quantifiable in terms of their costs and benefits. Furthermore, investment return may not be a strategic goal of organisations in the public and third sectors, where profitability is not a primary objective. Such organisations may still adopt a cumulative approach, however, by choosing other prioritisation objectives such as gaining market share or making optimum use of available capacity.

5.2. Compromise

This strategy recognises that uncoordinated small steps can be ineffective. There is often little value in addressing only one or a few constraints or barriers to access. Johan, indeed, noted the presence of a 'domino effect' if one component of the trip fails to meet a disable person's requirements:

> I suppose it's the whole domino effect … You might have the best disabled or accessible tourism site … but no accessible accommodation in the town (Johan)

When it comes to meeting the needs of PwDs, therefore, there is often little value in addressing part of the problem. The compromise strategy thus selects particular market segments: combinations of types of tourism and/or forms of disability (see Figure 1). These can then be developed fully to ensure that they will work successfully. For example, while it might not be feasible to adapt existing accommodation to enable people in wheelchairs to stay there, an alternative might be to adapt it for the use of people with sight loss or intellectual disabilities. Alternatively, it might make sense to focus on a particular activity within the organisation's portfolio and work to ensure that it is accessible to PwDs with a wide range of disabilities. A provider might not wish to make extensive provision for PwDs when it comes to 'hard' ecotourism. Max, who manages a rainforest conservation site, gave an example of this:

> In our loop walks we have simple loops that are highly interpretive and we have bigger loops for those who are more [physically] able.

This solution provides 'softer' activities more interpretive elements for all visitors to enjoy, while avoiding introducing major infrastructure (such as graded paths, bridges, etc) on the broader site.

5.3. Comprehensive

Adopting this strategy is often the result of providers accepting the ethical basis for ecotourism, one of the foundational principles of which is to seek to avoid conflict with the conservation values of the areas in which it takes place. It can be argued, therefore, this universal access should be considered essential in the ecotourism context. Without this, the ecotourism concept would lose any moral high ground it might have, a point made explicit in a study by Fennell and Garrod (2021). Duty and justice for PwDs must be embedded in a broader consideration of how to serve the needs and interests of PwDs, and the degree to which these meet with parallel conservation aims. Weaver (2002) argues that a softer-path, shallow, passive form of ecotourism seeks to restrict their activities to a small proportion of an ecotourism area (the front-country region) that include 'hardened' sites that can absorb the impacts of a larger number of tourists. This contrasts with hard-path ecotourism, which penetrates more deeply into such areas. Whether hard-path ecotourists are able to satisfy their interests in from-country regions is a topic for future research.

In the ecotourism context, therefore, achieving universal access should not mean that provision should be made for people with every kind of disability at every natural site (or, as Sax, 1980, might put it, 'every mountain should have handrails'). Far from it. As Elke noted:

> There's a lot of cases where people disabilities want to get into pretty rugged situations, and we should not be paving paradise.

Karla's view was even more forthright:

> I mean, it's the terrain that has attracted the developer … and the wilderness … and taming the wilderness to be up to disabled standards, ain't gonna happen.

The benefits of the comprehensive approach may, however, be considerable. Georg noted, for example, that many PwDs are well connected through internet chat groups and social media sites, and that word of mouth (or mouse) spreads fast:

> It's the businesses that are able to offer that inclusive experience naturally have kind of have that market cornered, and word spreads quite quickly.

Attempting to achieve comprehensive accessibility implies, of course, that 'paving' paradise is not simply about providing hard infrastructure, such as hardened pathways or handrails, but also providing 'soft' infrastructure (such as adapted signage for people with visual disabilities or reducing the pace of tours to help older people keep up) and the people-based elements of provision, including the attitudes both of staff members and other tourists. These

interventions may also make ecotourism areas feel less wild, adventurous and free. This is an important lesson for the use of traditional management in parks and wilderness areas, such as the Resource Opportunity Spectrum (Boyd & Butler, 1996), which typically do not recognise this. The comprehensive approach attempts to maximise access while avoiding paving paraise in all its different forms.

5.4. Theoretical contributions

The revised model presented here has several important theoretical implications. First, instead of a *hierarchical* structure, as proposed in McKercher and Darcy's (2018) model, this paper argues that the structure is essentially *relational*. This is important because, as noted below, it confronts ecotourism providers with problems that require an explicitly strategic approach to address both efficiently and effectively. Simple and incremental approaches will generally not suffice

Second, the research found of a fourth constraint based on the 'confidence' an ecotourist can have in booking elements of a trip, while 'interest' was not considered to be relevant in the ecotourism context. Confidence has, to the authors' knowledge, not been directly discussed in previous studies, although it would appear to be especially relevant in the ecotourism context.

Third, the case of ecotourism is highly instructive from a theoretical viewpoint, because it often takes place in sensitive environments. At the same time, ecotourism takes an explicitly ethical approach (Fennell, 2020), which suggests that ecotourism should not generally be introduced into contexts where accessibility cannot be achieved without 'paving paradise'. While it is entirely possible to apply principles of ecotourism and accessibility so that they are able to coexist with one another, this may not be possible at the ideological extremes, where meeting the ethical principles of one may prevent those associated with the other being met.

5.5. Limitations

This study of the strategies used in implementing accessibility in tourism was conducted in the particular context of ecotourism. This has not received significant attention in the previous literature but is particularly instructive in view of the strong potential for accessibility and conservation goals to come into conflict. Given its focus on ecotourism, it could be argued that the findings are not easily transferred to other types of tourism, including conventional tourism. It might be argued, however, that the findings of the study are critical to the future of the tourism industry in which both sustainability issues and accessibility issues are rising to the fore. The ecotourism-accessibility nexus can thus be argued to represent an important test case, in which the issues are central and forefront, and from which other forms and instances can learn vital lessons.

It is also important to note that while this study considered both demand- and supply-side factors, these were investigated through the voices of ecotourism providers. While many of the pool of interviewees had an excellent knowledge of the demand constraints associated with ecotourism, with some being PwDs themselves and others being long-term carers or

companions of tourists with disabilities, there is room for future studies to consider the voices of ecotourists, per se, more directly.

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Table 1: Interviewee details

Pseudonym	**Gender**	**Country**	**Profession**
Albert	Male	USA	Accessible ecotourism consultant
Beata	Female	Sweden	Accessible ecotourism accommodation owner
Calvin	Male	UK	Accessible ecotourism researcher/ consultant
Dora	Female	Canada	Accessible ecotourism consultant
Elke	Female	Canada	Accessible ecotourism consultant
Frida	Female	Canada	Ecotourism destination marketing organisation officer
Georg	Male	Canada	Ecotourism destination marketing organisation officer
Helga	Female	Canada	Ecotourism destination marketing organisation officer
Ivana	Female	Canada	Ecotourism destination marketing organisation officer
Johan	Male	Australia	Accessible ecotourism consultant
Karla	Female	USA/Costa Rica	Accessible ecotourism accommodation owner
Luther	Male	Australia	Accessible ecotourism accommodation owner
Max	Male	Australia	Ecotourism site volunteer manager
Nina	Female	Australia	Accessible ecotourism accommodation owner

Table 2: Coding map developed in the study

Subject of questions	Open codes	Axial codes	Selective codes
Motivations of people with disabilities to engage in ecotourism	How motivations of PwDs differ to those of non-PwDs	• Experience nature • Escape • Self-challenge • (Lack of) interest	• Demand for ecotourism experiences • Relation between demand and supply (illustrated by arrows)
	How motivations vary by types of ecotourism experience	• Types of activity • Level of challenge	• 'Hard' vs. 'soft' ecotourism
Constraints and barriers to participation of PwDs in ecotourism	Role of social barriers	• Physical • Informational • Attitudinal	• Relational structure (illustrated by arrows)
	How social barriers vary by type of disability	• Physical • Sensory • Intellectual	• Forms of disability - Physical - Sensory - Intellectual - Elderly - Temporary - Children and pregnant women • Multiple (intersectionality)
	How social barriers vary by trip stage	• Pre-trip • During trip • Post-trip	• Type of provider • Type of activity • Modes of transportation • Long vs. short haul trips • Time of year • Accommodation
	Role of leisure constraints	• Inter-personal • Intra-personal • Structural • Confidence	• Relational structure (illustrated by arrows)
	Relationship between constraints and barriers	• Links between constraints and barriers	• Relational structure (illustrated by arrows)
Putting accessibility into practice	Specifics of the ecotourism context	• Wilderness • Transport • Infrastructure	• Supply of ecotourism experiences
	Achieving access to ecotourism	• Desire for a seamless experience • Limitation to types of disability • Pursuit of ecotourism goals	• Cumulative • Compromise • Comprehensive

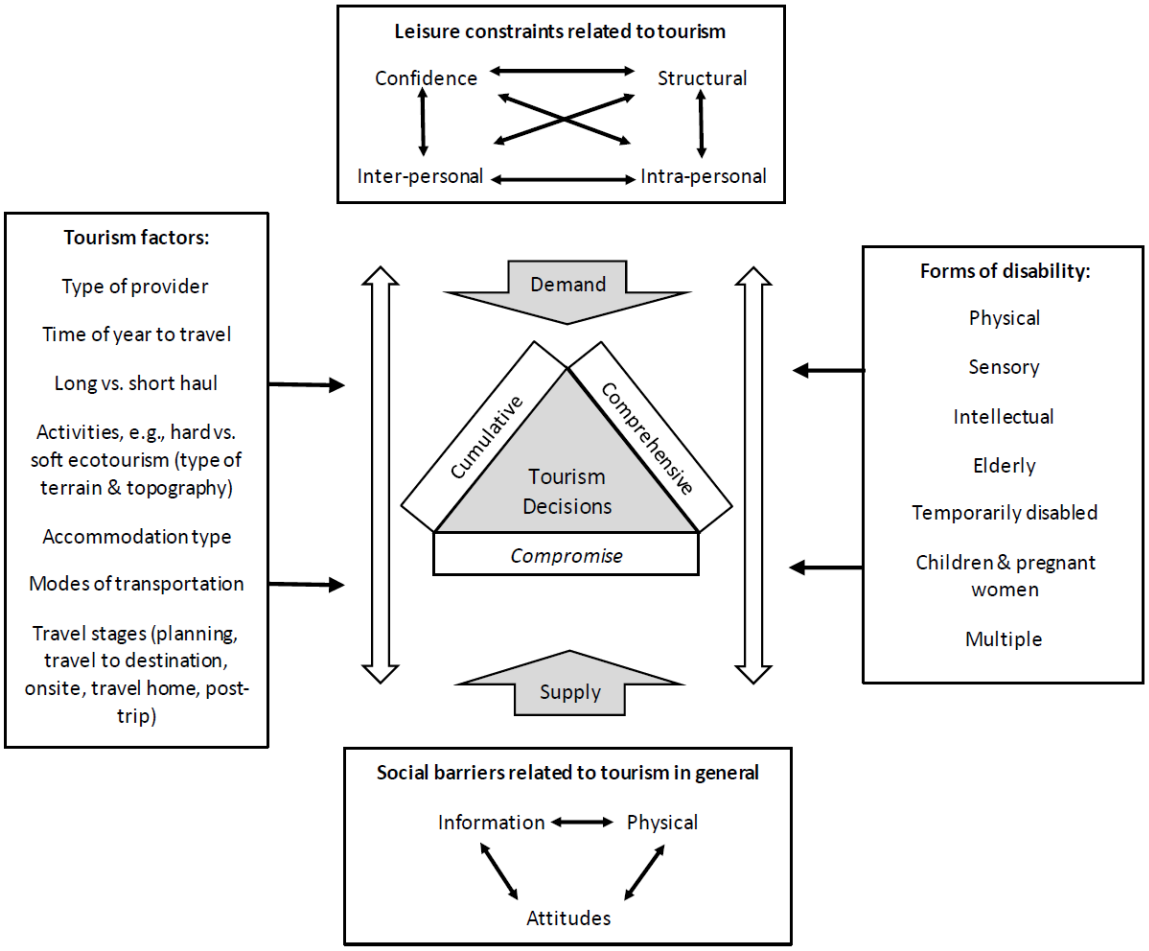
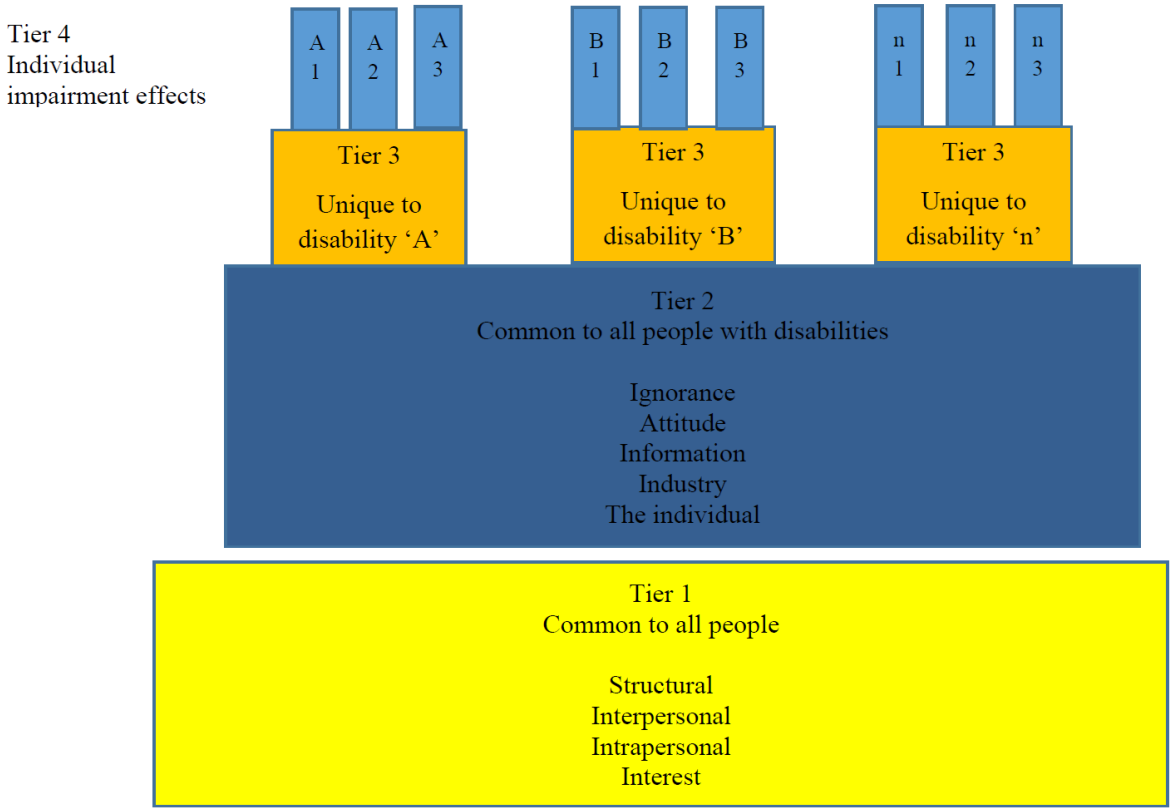


Figure 1: Adapted framework for strategic and operational responses to addressing the tourism-related needs and wants of people with disabilities.

Appendix A: McKercher and Darcy's (2018) hierarchical model of barriers to travel by people with disabilities



Source: McKercher and Darcy (2018).

Appendix B: Measures to verify research rigour

Criterion	Description	Measures
Authenticity	The extent to which the researchers have been able to accurately reflect the feelings and emotions expressed by the interviewees	Use of verbatim interviewee quotes to illustrate the analysis
Credibility	The extent to which the researchers have been able to faithfully capture the nuanced meanings intended by interviewees	Use of recorded, transcribed, in-depth, semi-structured, in-person interviews
Transferability	The extent to which other individuals, in similar positions to the interviewees but not associated with the research, are able to recognise and identify with it.	Purposive selection of interviewees to represent different contexts and positions. Information on the research context and individual interviewees is provided
Confirmability	The extent to which the researchers can demonstrate that the data is true to the interviewees' responses and not their own.	Reflexive journaling approach. Use of authentic interviewee quotes.
Dependability	The extent to which the coding choices would be consistent if repeated.	Data triangulation. Researcher triangulation.