ACCESSIBLE TOURISM – CURRENT STATE IN SLOVAKIA*

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Abstract. The number of people with disabilities in the world is growing every year. When traveling, they encounter various barriers. The article focuses on Slovakia, a country in which accessible tourism has not yet been examined. It is the result of extensive research carried out in the years 2016 to 2020. The scientific goal of the article is to examine the tourism demand and the degree of adjustment of the tourism supply for visitors with physical disabilities in Slovakia and to find out the connection between the accessibility of the tourism facilities and the destinations attendance. Article emphasizes the need to improve the country's accessibility in tourism for visitors with disabilities. Research is based on the theoretical research methods, exploratory statistics, and correlation analysis to evaluate the accessibility of the supply in all self-governing regions in Slovakia. It analyzes the demand of the visitors with disabilities based on the results of a qualitative survey carried out by the method of sociological questioning using the standardized interview technique with the representatives of associations for people with disabilities (19). The results of the research show that people with disabilities want to travel and urge the lack of accessibility of tourism attractions and facilities and on the various types of barriers. The research sample consists of 11,281 tourism supply facilities in Slovakia. The results of the research points to an insufficient rate of accessibility of the country (19.7%)
for visitors with physical disabilities and the need for higher investments in debarierization of the environment, which can make the whole country more attractive and increase its importance on the international tourism market.

**Keywords:** accessibility; demand; disability; supply; tourism


**JEL Classifications:** I14, L83, Z32

1. **Introduction**

Evaluation of the tourism demand of the visitors with disabilities and the tourism supply for visitors with disabilities in Slovakia is a current topic, as the number of people with disabilities is constantly growing. Discussions at the national and international level focus on the need to remove barriers of various kinds. We want to emphasize the need to change the current situation in tourism to suit everyone without distinction. Healthy, disadvantaged, young, seniors, people with sudden and temporary restrictions to the possibilities of movement and orientation, parents who accompany a child in a stroller, people with optimal weight, but also the overweight. We want to contribute to the scientific and professional discussion on the importance of adapting the primary and secondary supply of tourism for the most vulnerable so that not only the target group but also Slovakia as a country will be competitive in the international tourism market benefits from new opportunities.

2. **Theoretical background**

More than 15% of people in the world suffer from some health disadvantage (WHO 2011, 2020, [https://ec.europa.eu](https://ec.europa.eu), 2018). According to the data of the European Health Survey EHS 2014, almost 54% of the population of Slovakia suffers from long-term chronic diseases or health problems (Statistical Office, 2015) and their prevalence is increasing ([http://www.who.int](http://www.who.int), 2018). It is related to the prolongation of the average life expectancy of the world's population, which increases the incidence of chronic non-transferable diseases, however, modern medicine offers better options for diagnosis, control, and registration of the people with disabilities (Repková & Sedláková, 2012). They are still a minority in society and are often marginalized. Daily, they face barriers that prevent them from carrying out normal activities and integrating with healthy people. The World Disability Report ([http://www.who.int](http://www.who.int), 2011) highlighted the need to destigmatize the lives of people with disabilities. The need for debarierization also affects tourism, as disabled visitors is a large segment and their participation in tourism presupposes a specific approach to the creation of infrastructure and tourism products. In addition to a human approach, adapting tourism supply also represents a business opportunity that will ensure the success of the stakeholders in the competitive market environment.

The integration of people with disabilities into society, the adaptation of the environment and the travel possibilities of this segment of visitors have been among the topics discussed at the European Union level, but also in the international context for decades (Burnet & Bender-Baker, 2001; Lobozewicz, 2001; McKercher et al., 2003; Yau et al., 2004; Westcott, 2004; Buhalis, 2005; Hitsch, 2005; Ambrose & Michailidis, 2007; Chang & Sing, 2007; Darcy, 2010; Minnaert et al., 2009; Doubled, 2010; Pezzo 2010; Buhalis & Darcy, 2011; Linderová, 2011; Minnaert, 2011; Petruchová, 2011; Buhalis et al., 2012; Gheorghe et al., 2012, McCabe et al., 2012; Minnaert et al., 2012; Steinfeld & Maisel, 2012; Minnaert et al., 2013; Minnaert, 2014; Özogul & Baran, 2016; Polat & Hermans, 2016; Souza & Post, 2016; Agovino et al., 2017; Lyu, 2017; Altinay et al., 2019; Sanchez-Aarnoutse, 2019; Zhang et al. 2019; Cochran, 2020; Wong et al., 2020; Cochran & Chatman, 2021).

It is indisputable that people with disabilities are interested in traveling and have the right to travel, which is contained in in the Global Code of Ethics for Tourism (UNWTO, Article 7, 2020), which calls for tourism for all
people without distinction and for access to travel for families, young people, students, the elderly and people with disabilities. The adaptation of tourism supply for people with disabilities is apart of social tourism, accessible tourism, resp. tourism for all. Definitions of social tourism are inconsistent and are subject to development. Minneart et al. (2013) perceive social tourism as a moral added value, which focuses on the benefit of the host and visitor from tourism. Šimková (2014) emphasizes the need for benefits not only for visitors and hosts, but also for the tourism destination. In terms of the benefits of social tourism for the destination, it can be about taking advantage of business opportunities by introducing innovations in the form of specific products, adapting tourism facilities and their products (Zenko & Sardi, 2014). Comprehensively, it can be stated that social tourism enables the participation in tourism of such groups of the population that are disadvantaged in the society (Linderová & Scholz, 2019). The available information and statistics show that the majority of visitors with disabilities are apart of a socially weaker class in society (WHO, 2016).

Accessible tourism, sometimes referred to as barrier-free tourism, resp. universally accessible tourism is defined as a form of tourism that makes travel destinations accessible to visitors with limited mobility, resp. with limitations of sight or hearing and allows them to function independently, with dignity, with their own capital through universally designed projects and products. It also affects seniors, visitors who travel with children in prams, and its aim is to preserve the three basic pillars of travel: independence, equality, and dignity (Darcy & Dickson, 2009). An important representative of accessible tourism in Europe is ENAT - European Network for Accessible Tourism (Accessible Tourism in a Nutshell, 2010, p. 3). It seeks to develop accessible tourism, in particular by providing a wide range of information for visitors and experts in the field (www.accessibletourism.org, 2016).

The European Union most often deals with the concept of tourism for all, which includes the participation of all people with or without disabilities in tourism. It concerns low-income families, young people, the elderly, and people with disabilities, meaning people with physical, visual, hearing, cognitive, intellectual, or psychosocial disabilities that may be permanent or temporary (Takayama Declaration, UNESCAP, 2009). The members of the European Union's advisory body - the European Economic and Health Committee (EEIG), concluded in 2003 that it was essential to develop sustainable tourism for all and called on NGOs to bring together disadvantaged citizens, European institutions, national governments, regional and local authorities, as well as tourism businesses to join the effort to make Europe a world tourism center that is a barrier-free and a sustainable space accessible and open to all. Emphasis is placed not only on the accessibility and sustainability of tourism, but also on the need for changes in people's mentality, the need to provide up-to-date information, awareness, and management of tourism for visitors with disabilities (ENAT, 2007, p. 12). The European Commission and the European Economic and Social Committee have recognized not only the societal value of tourism for all, but also its potential economic value in terms of income generation, job creation and regional development (Griffin & Stacey, 2011).

From the previous definitions, the link between social tourism, accessible tourism, and tourism for all is clear. We understand tourism for people with disabilities as a part of social tourism (Linderová, 2011), as well as accessible tourism. We again perceive social tourism and accessible tourism as subcategories of a broader concept - tourism for all. Its aim is not only to create specific conditions for disadvantaged groups of visitors, but also to create uniform conditions for participation in tourism for all groups of visitors - even for those who have individual needs due to a certain disadvantage (Leidner, 2006).

We define tourism visitors with disabilities as a complex of activities aimed at satisfying the demand of people with disabilities associated with travel and stay of such persons outside their place of residence, usually in leisure time in order to achieve a comprehensive experience. This segment has the potential to grow and with it a willingness to spend more on tourism than non-disadvantaged visitors (Yau et al., 2004; UNWTO, 201 5). This assumption is not valid in terms of tourism participation in Slovakia which is the result of the frequent inclusion
of people with disabilities among socially disadvantaged visitors. The requirements of the segment of visitors with disabilities in tourism relate mainly to better access to transport, accommodation, catering, access to water, national parks and cultural attractivities. Accessibility not only concerns people with physical disabilities. Care must be taken to make facilities and objects accessible to the blind, hearing, and otherwise disadvantaged visitors (Özogul & Baran, 2016).

The World Tourism Organization (UNWTO) defines people with disabilities as individuals “whose handling and orientation ability, respectively movement in a normal environment is limited. These are people who have special requirements when traveling, choosing accommodation facilities and other tourism services. They include people who require special care due to their state of health” (www2.unwto.org, 2005). The definition of people with disabilities and their classification is complicated and inconsistent. The World Health Organization (WHO) distinguishes between health handicap and health disability (www.who.int, 1976). Disability is defined as a restriction or loss of ability to perform normal activities in a way that is normal for a person; handicap is understood as a disadvantage of an individual resulting from his disability and restricts or prevents the performance of activities that are perceived as normal by reason of sex, age, hygienic and cultural factors.

The World Tourism Organization (UNWTO) also defines people with disabilities as people who are prevented from full and effective participating in social life at the same level as healthy individuals due to environmental and attitude barriers (architectural barriers that hinder the people with disabilities, barriers for the visually impaired, such as the absence of a Braille menu, or barriers for the hearing impaired, such as lack of textual interpretation in the museum, a guide that does not speak sign language) (UNWTO, 2013, p. 14). These are obstacles by travelling, accommodation, and the provision of other tourism services. If a person with a disability is a representative of tourism demand, has a disability, he or she becomes a visitor with disabilities in tourism.

Although debarierization is aimed primarily at people with disabilities, it also benefits people who carry luggage or pushes a pram. Debarierization does not in any way limit the most numerous group of people without disabilities, on the contrary, it increases their safety and the overall attractiveness of the environment (Ministry of Transport, Construction and Regional Development of the Slovak Republic, 2011). However, it is most often associated with the removal of architectural barriers. The most common problems perceived by visitors with disabilities include insufficiently adapted exteriors and interiors of accommodation and catering facilities, insufficiently accessible sanitary facilities, lack of barrier-free transport options, lack of reliable information on the accessibility of tourist attractions, resp. insufficiently trained staff in the question of the accessibility of tourism facilities (Clery et al., 2017).

Tourism supply in destinations and its aspects were addressed by several authors. Foreign authors Morachat (2003) and Manoj & Babu (2008) divide tourism supply into primary and secondary (Table 1).

<table>
<thead>
<tr>
<th>primary supply given by nature</th>
<th>arboretum, botanical gardens, protected areas, caves, mineral and thermal springs, nature trails, natural and artificial water areas watercourses</th>
</tr>
</thead>
<tbody>
<tr>
<td>primary anthropogenic supply</td>
<td>castles, chateaux and manors, sacral buildings and monuments, prominent buildings, monuments, memorial buildings and rooms, objects of folk architecture, open-air museums, technical monuments, archeological sites, cultural and educational facilities</td>
</tr>
<tr>
<td>organized events</td>
<td>cultural, sporting, business, religious, socio-political events</td>
</tr>
</tbody>
</table>

Table 1. Objects of the primary tourism supply

Source: Own elaboration according to Morachat, 2003; Manoj & Babu, 2008; Gúčik, 2010

69
The secondary supply represents the material and technical support for the development of tourism. It includes accommodation and hospitality facilities, sports and recreational facilities, cultural and educational facilities, civic amenities. It represents the resources of tourism, which include reproducible goods created by man that require labor and capital to provide them (Mihalič, 2013). In order to satisfy the needs and expectations of visitors and a certain market segment, it is necessary to constantly develop and innovate the secondary supply of tourism.

The successful development of tourism for people with disabilities is conditioned by the legislative regulation of accessibility. Adherence to it significantly affects the attractiveness of the primary and secondary supply at the destination, which needs to be constantly developed and innovated. The basis of the competitive advantage of the destination is the primary supply (tourist attractions) and the secondary supply (tourism infrastructure and quality of its services). While the primary supply takes the form of a competitive advantage in the uniqueness of the tourist attractions, the secondary supply represents a competitive advantage in terms of price level and quality of services (Gúčik, 2010). A destination may be competitive for one segment of visitors while not others. In the conditions of demand, the preferences of visitors, awareness of the destination and the image of the destination resonate (Dwyer & Kim, 2003). The conceptual apparatus of competitiveness of tourism destinations includes a number of indicators of local, regional, and national character. The most important interpret the relationships between the attractiveness of the destination and potential visitors, demand, and supply of services, as well as the attitudes of individual business entities operating in tourism. In addition to the mentioned indicators, there are other factors, and therefore we must approach the evaluation of the competitiveness of the destination comprehensively and interdisciplinary (Bucher, 2015). Competitiveness of the destination is therefore not a matter of one or two factors. This is a complex problem with a large number of variables. Key factors include attractiveness, macroeconomic factors, innovation, strategic planning, destination image and branding, destination management, partnerships and cooperation, tourism prioritization, service quality and, last but not least, accessibility (Vanhove, 2017). If a destination wants to be competitive in the tourism market, accessibility is an important condition to achieve it.

We identify a significant gap in research when talking about accessibility of tourism destinations and their attendance in the context of competitiveness. The academic interest of this issue is being disregarded thus at local, regional and national level. The tourism destinations either at regional and national level face an unprecedented competition. It is at utmost concern to cover all the factors influencing their competitiveness at the international tourism market. Beside the security, political stability, openness of cross-border movement, positive image, appropriate marketing communication, mutual lingual understanding, legislative factors influencing business environment, the accessibility of tourism destinations belongs to the common factors. When being adapted and accessible to all visitors, including the segment of people with disabilities and being able to effectively communicate these changes of facilities and attractiveness at regional and national level, the tourism destinations will augment their attendance and become more competitive at the international tourism market.

3. Research objective and methodology

The scientific goal of the article is to examine the tourism demand of the visitors with disabilities in Slovakia, the degree of adaptation of tourism supply for the visitors with physical disabilities in Slovakia and to find the connection between the accessibility of the tourism facilities and the attendance of the destinations with the Slovak example.
The demand of the visitors with disabilities is the result of the analysis of information obtained from a qualitative survey carried out by the method of sociological questioning using the technique of semi-standardized interview with representatives of associations (19 organizations) associating persons with disabilities (45,600 persons) in all Slovak self-governing regions. We assume that it is the representatives of the associations of the people with disabilities who are in daily contact with them, who have an overview of their needs, comments, problems, opinions, and requirements. Through them, we find out the satisfaction of visitors with disabilities with the current tourism supply in Slovakia. As it is not possible to address specific visitors with disabilities individually due to the personal data protection and we are interested in the most comprehensive results that summarize the satisfaction and requirements of the target group in all self-governing regions of Slovakia, we focus on organizations which are in daily contact with them and represent their interests and preferences. We perceive the members of individual organizations as real and potential visitors to tourist destinations in Slovakia. The list of organizations that are focused on helping disabled people is drawn from the website ives.minv.sk, for the content of which the Ministry of Interior of the Slovak Republic is responsible. We deal with the question whether people with disabilities in Slovakia are interested in participating in tourism and how they evaluate the current supply of services. We identify barriers to the participation of the people with disabilities disabled in the tourism. We are interested in the opinion of the association on the current legislation on the rights of the people with disabilities in Slovakia and what support from the state would be acceptable for them, respectively desirable.

This research evaluated the possibilities of visits of barrier-free accommodation and hospitality facilities, barrier-free public transportation, sport and recreation facilities, cultural-historical and cultural-educational facilities, ZOO and botanical gardens, caves, bike trails, tourist trails, slopes and cross-country ski trails, organized events for visitors with disabilities and travel agency offer, which specialize on visitors with disabilities throughout the territory of Slovakia on the supply side. The research focused in each category on facilities with a summarization of their total number, the number of barrier-free and partially accessible objects and facilities and their percentage share of the total number of objects (Table 2).

<table>
<thead>
<tr>
<th>Evaluated objects and facilities</th>
<th>Assignment to the elements of the primary or secondary tourism supply</th>
<th>Degree of accessibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accommodation</td>
<td>Secondary supply</td>
<td>- completely and partially barrier-free</td>
</tr>
<tr>
<td>Hospitality facilities</td>
<td>Secondary supply</td>
<td>- completely and partially barrier-free</td>
</tr>
<tr>
<td>Transportation (station buildings, platforms)</td>
<td>Secondary supply</td>
<td>- completely and partially barrier-free</td>
</tr>
<tr>
<td>Sports and recreational facilities (swimming pools, aqua parks, football, hockey stadiums)</td>
<td>Secondary supply</td>
<td>- completely and partially barrier-free</td>
</tr>
<tr>
<td>Cultural-historical and cultural-educational facilities (castles, chateaux, churches, museums, galleries, open - air museums, theaters, cinemas)</td>
<td>Primary supply</td>
<td>- completely and partially barrier-free</td>
</tr>
<tr>
<td>ZOO and botanical gardens</td>
<td>Primary supply</td>
<td>- completely and partially barrier-free</td>
</tr>
<tr>
<td>Caves</td>
<td>Primary supply</td>
<td>- completely and partially barrier-free</td>
</tr>
<tr>
<td>Access to bike paths and hiking trails, ski slopes and cross-country trails</td>
<td>Secondary supply</td>
<td>- completely and partially barrier-free</td>
</tr>
<tr>
<td>People with disabilities associations</td>
<td>Primary supply</td>
<td>- supply of organized events for people with disabilities</td>
</tr>
<tr>
<td>Travel agencies</td>
<td>Secondary supply</td>
<td>- a specialized supply for the people with disabilities</td>
</tr>
</tbody>
</table>

Source: Own elaboration according to Linderová, 2012
When evaluating accessibility, we took into account the information provided on relevant websites, which were compared to eliminate duplication. We verified the obtained information by a personal visit, by phone, resp. by photo documentation available online. In the survey of accommodation facilities, we included only hotels, boarding houses and apartment houses as the most numerous categories of accommodation establishments in Slovakia, the numbers of which are listed by the Statistical Office of the Slovak Republic on the website statdat.statistics.sk in the category Capacity and performance of accommodation establishments. The survey was conducted continuously over a longer period of time (2016 - 2020) in all (8) self-governing regions of Slovakia (Figure 1).

![Figure 1. Division of Slovakia into the self-governing regions](image)

Source: www.opensource.com, 2021

We consider all objects and facilities in which there is no barrier to access for the visitors to be barrier-free. We consider as partially accessible objects and facilities in which there is a small barrier to access for people with disabilities, so it is accessible only for some of them, or access requires the assistance of another person (such as overcoming a step).

In the analysis, we evaluated the percentage of accessible objects and facilities to the total number of evaluated objects and facilities in the region according to individual groups, as well as the total percentage share of all accessible objects and facilities to their total number. We added one point for each barrier-free, resp. partially accessible object or facility. We call such objects and facilities accessible. The maximum number of points determines the number of examined facilities in the region. We evaluated how many examined buildings and facilities are wheelchair accessible and partially accessible and we transformed the values into a percentage. Then we integrated the level of accessibility of supply for visitors with physical disabilities in the various regions to one of five possible levels (Table 3).
Table 3. Scale of the degree of adjustment of the tourism supply for visitors with physical disabilities in the self-governing regions of Slovakia

<table>
<thead>
<tr>
<th>Share of accessible facilities and objects in their total number in the region (in %)</th>
<th>Qualitative evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – 20</td>
<td>unsatisfactory level</td>
</tr>
<tr>
<td>21 – 40</td>
<td>basic level</td>
</tr>
<tr>
<td>41 – 60</td>
<td>average level</td>
</tr>
<tr>
<td>61 – 80</td>
<td>above average level</td>
</tr>
<tr>
<td>81 – 100</td>
<td>excellent level</td>
</tr>
</tbody>
</table>

Source: Own elaboration according to Linderová, 2012

We assessed the level of adjustment of the tourism supply for the visitors with physical disabilities in Slovakia by a weighted arithmetic average, which takes into account the number of evaluated objects and facilities in the self-governing regions of Slovakia and the achieved level of adjustment of the supply in them. The sample consists of evaluated objects and facilities of primary and secondary tourism supply with the number of objects and facilities by region which are: the Bratislava Region (1,989); Trnava Region (1,881); Trenčín Region (845); Nitra Region (614); Žilina Region (1,760); Banská Bystrica Region (924); Prešov Region (2,663); and the Košice Region (605); a total of 11,281 objects and facilities of tourism supply in Slovakia.

In addition to the method of observation and questioning, we used exploratory statistics (to express the absolute and relative frequencies of accessibility of objects and facilities in specific regions and in Slovakia in general and made a correlation analysis. From theoretical methods of scientific work, we used content-causal analysis, analysis and synthesis, induction and deduction, and comparison. We used the correlation analysis (calculation of the tightness depending on the monitored variables) to detect dependencies between several variables. We were interested in the influence of the number of barrier-free accommodation (to December 31st of the specific year) in various regions on the number of visitors in accommodation establishments in the regions (for a specific calendar year). In the case of confirmation of dependence, we state that in the examined areas, it is important to focus on the availability of accommodation facilities, because their accessibility is related to their attendance.

We found a dependence between the number of accessible accommodation facilities and accessible hospitality facilities, respectively other facilities within the primary and secondary supply of individual regions. We have supposed that in regions where there are more accessible accommodation facilities for visitors with disabilities would also have more dining options, more options for time spent freely and generally can be better adapted. If the addition has not been confirmed, it could mean that the offerings of accommodation facilities does not correspond with dining options and leisure possibilities in the region.

We were interested in the relationship between the number of visitors in regions (for a specific calendar year) and the level of accessibility of regions (in %), as well as the relationship between GDP, expressed per capita in the regions, expressed in current prices in a particular calendar year (in %), which would express the relationship between the economic performance of regions and the level of their accessibility.

We consider it important to determine the impact (direct or indirect impact) of the examined variables and its intensity (strong, average, weak impact), or to identify variables that are not affected. To verify the agreement of the detected state and the assumption (we always examine the assumption that the characters A and B are independent) we use the method of Spearman's nonparametric correlation coefficient, which also verifies the degree of intensity of the dependence of the examined characters.
4. Results and discussion

A tourist destination becomes attractive for visitors with disabilities if it has significant and diverse potential with offerings that are adapted and accessible to them and its presentation on the market is capable of arousing interest. Slovakia is characterized by the diversity of supply, which in terms of international classification of tourist attractions according to IUOTO-WTO contains up to 38 of the 39 possible most sought-after tourist attractions (all except sea). The territory of Slovakia is divided into individual self-governing regions (8 regions: Bratislava, Trnava, Nitra, Trenčín, Banská Bystrica, Žilina, Prešov, Košice Regions).

Organizations willing to participate in the primary demand-side survey, carried out by the sociological survey method using the semi-standardized interview technique (19), agreed that people with disabilities have a strong interest in participating in tourism. However, in reality, they participate in it only to a limited extent due to the existing barriers. They consider insufficient debarierization to be the biggest obstacle. They perceive the insufficient removal of physical barriers the most, not only in tourism facilities (especially accommodation facilities), but also in transport and in public institutions. They critically evaluate insufficiently elaborated and non-functioning legislation, the bad financial situation of the affected segment of people, or the non-empathetic approach of the healthy population, which is also reflected in the provision of tourism services. As a part of the removal of the barriers, associations would welcome the adoption of legislation concerning the obligations of transport operators, owners and operators of tourism facilities to make them available and to ensure strict compliance with existing legislation. They consider it very important to improve the awareness of the people with disabilities about their opportunities to participate in tourism. They would consider better social security of the people with disabilities by the state to be beneficial. The results of the qualitative survey, concerning the number of organizations and their members addressed, as well as the relative share of organizations that agree with the above statements, arranged chronologically, are summarized in the Table 4. We consider the results important especially with regard to the large number of people with disabilities in the survey, which the organizations associate and which they represented in their statements.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Qualitative expression (absolute)</th>
<th>Quantitative expression (relative)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of participating organizations</td>
<td>19</td>
<td>100%</td>
</tr>
<tr>
<td>Number of persons with disabilities associated in organizations</td>
<td>45 600</td>
<td>100%</td>
</tr>
<tr>
<td>Number of organizations that perceive the existence of barriers (in general)</td>
<td>19</td>
<td>100%</td>
</tr>
<tr>
<td>Number of organizations that perceive the existence of physical barriers</td>
<td>19</td>
<td>100%</td>
</tr>
<tr>
<td>Number of organizations that perceive the tourism supply as adapted to a limited extent (partially)</td>
<td>12</td>
<td>63,2%</td>
</tr>
<tr>
<td>Number of organizations that perceive the existence of the legislative barriers</td>
<td>9</td>
<td>47,4%</td>
</tr>
<tr>
<td>Number of organizations that consider the level of awareness of people with disabilities about the level of the tourism accessibility in the region to be weak</td>
<td>9</td>
<td>47,4%</td>
</tr>
<tr>
<td>Number of organizations that perceive the tourism supply as insufficiently adapted</td>
<td>6</td>
<td>31,6%</td>
</tr>
<tr>
<td>Number of organizations that perceive the disproportionality of the debarierization of the settlements in the regions</td>
<td>3</td>
<td>15,8%</td>
</tr>
<tr>
<td>Number of organizations that perceive a lack of funding for people with disabilities</td>
<td>3</td>
<td>15,8%</td>
</tr>
<tr>
<td>Number of organizations that perceive the tourism supply as sufficiently adapted</td>
<td>1</td>
<td>5,2%</td>
</tr>
</tbody>
</table>

Source: Own elaboration, 2021
We also present them with a word cloud, which is based on a frequency analysis of the occurrence of the words in the answers of representatives of organizations and allows to visualize the meaning of important statements of respondents (Figure 2).

![Word Cloud]

*Figure 2. The result of the frequency analysis of the occurrence of words in the demand survey

*Source: Own elaborating in World Cloud Generator, 2021*

It is clear from the results that there is an interest of people with disabilities in participating in tourism. Expressions resonated in the statements such as lack, insufficient offer, insufficient legislation, lack of information, insufficiently adapted, unadapted, resp. absent, limited, which related mainly to the supply, but also to the legislation, resp. to the information.

Slovakia comprehensively achieved a 19.7% adjustment of the tourism supply for visitors with physical disabilities. This means that so far, the country has not even reached a basic level of adjustment, which can be considered an alarming situation that needs to be gradually changed. The comprehensive results of the adaptation of tourism supply for physically disadvantaged visitors in all regions of Slovakia are summarized in Table 5.
Table 5. Evaluation of the level of adaptation of tourism supply for visitors with disabilities in Slovakia by region

<table>
<thead>
<tr>
<th>Name of the region</th>
<th>Number of evaluated facilities and objects of tourism (max. number of points)</th>
<th>Adjusted level achieved (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bratislava Region</td>
<td>1989</td>
<td>18.6</td>
</tr>
<tr>
<td>Trnava Region</td>
<td>1881</td>
<td>20.6</td>
</tr>
<tr>
<td>Trenčín Region</td>
<td>845</td>
<td>29.8</td>
</tr>
<tr>
<td>Nitra region</td>
<td>614</td>
<td>19.1</td>
</tr>
<tr>
<td>Žilina Region</td>
<td>1760</td>
<td>13.3</td>
</tr>
<tr>
<td>Banská Bystrica Region</td>
<td>924</td>
<td>35.0</td>
</tr>
<tr>
<td>Prešov Region</td>
<td>2663</td>
<td>11.0</td>
</tr>
<tr>
<td>Košice Region</td>
<td>605</td>
<td>40.0</td>
</tr>
<tr>
<td>Offering in Slovakia total</td>
<td>11281</td>
<td>= 19.7</td>
</tr>
</tbody>
</table>

Source: Own elaboration, 2019

By statistical evaluation of the results of the primary and secondary survey, we determined the dependence between the variables, which we assumed to confirm the importance of achieving accessibility of tourism facilities with respect to the attendance of destinations. We were also interested in whether there is a statistical connection between the economic performance of the destinations at the level of self-governing regions and the achieved accessibility of facilities and objects in the area of the monitored destinations.

We verified the dependence of the variables using the statistical software IBM SPSS Statistics, version 25 (2020). We found out whether the influence is direct or indirect and what is its strength (strong, medium strong, weak). We used the Spearman rank correlation coefficient method to verify the impact and quantify it. It can range from -1 to +1. A value of -1 represents the highest negative and a value of +1 represents the highest positive dependence. If the dependence coefficient is in the range from 0 to 0.3, we speak of a weak dependence, in the interval from 0.3 to 0.6 with a medium strong dependence and in the interval from 0.6 to 1.0 with a strong dependence. We found a dependence between several variables: (1) the number of accessible accommodation facilities in the region and the number of visitors in the accommodation facilities in the region; between (2) the number of accessible accommodation facilities in the region, resp. (3) the number of accessible hospitality facilities in the region and other accessible facilities within the primary and secondary supply in the region; between (4) the number of visitors in regions in a specific calendar year and the level of overall accessibility of regions (in %); between (5) the economic performance of regions, expressed in GDP per capita in regions, expressed in current prices in a specific calendar year, and the level of overall accessibility of regions (in %).

The research results confirmed (in the calendar year in which the research was conducted) a strong direct dependence between the number of accessible accommodation facilities in the self-governing region and the number of visitors in accommodation facilities in the region (Table 6).
The result can be interpreted as the more barrier-free, resp. partially accessible accommodation facilities were located in the region in a specific calendar year, the more visitors visited this region.

Spearman's rank correlation coefficient also confirmed in a specific calendar year a strong direct dependence between the number of accessible accommodation facilities in the region and the number of accessible objects of primary supply, which include cultural-historical and cultural-educational facilities, ZOOs and botanical gardens, caves, and organized events for people with disabilities in self-governing regions (Table 7).

The result can be interpreted that the more accessible accommodation facilities in the region in the examined calendar year, the more there were also accessible objects of primary supply in the region, which means that the visitor who decided to visit a particular region had more opportunities to spend free time in accessible facilities of the primary supply in the region, where he also had the opportunity to find suitable accommodation.

The results of the research confirmed that in the examined calendar year, there is a statistically weak indirect dependence between the number of accessible accommodation facilities in the region and the number of accessible objects and facilities of secondary supply in the region after deducting accommodation and catering facilities. The objects of the secondary supply after deduction of accommodation and catering facilities include barrier-free possibilities of public transportation, sport and recreational facilities, cycling and hiking trails, ski slopes and cross-country trails, travel agencies (Table 8).

A moderate indirect dependence was confirmed between the number of accessible hospitality facilities and the number of accessible secondary supply facilities after deduction of accommodation and catering facilities (Table 9).
Table 9. Matrix of the correlation coefficient between the number of accessible hospitality facilities in the region and the number of accessible facilities and secondary supply facilities in the region after deduction of accommodation and catering facilities

<table>
<thead>
<tr>
<th>Researched variables</th>
<th>Number of accessible hospitality facilities in the region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of accessible facilities and secondary supply facilities in the region after deduction of accommodation and catering facilities</td>
<td>-0.559</td>
</tr>
</tbody>
</table>

Source: Own elaboration according to the results of IBM SPSS Statistics, version 25, 2020

In our opinion, indirect dependence points to a significant share of accommodation, but especially hospitality facilities in the total number of opportunities to use the secondary supply in the region in the period under study and points to the need to complete other accessible facilities to make the offer of accessible facilities in the region comprehensive.

At the same time, Pearson's correlation coefficient in the examined calendar year confirmed a moderately strong indirect statistical dependence between the number of visitors in the region and the overall accessibility of the region (in %) (Table 10).

Table 10. Matrix of correlation coefficient between the number of visitors in the region and the overall accessibility of the region

<table>
<thead>
<tr>
<th>Researched variables</th>
<th>Accessibility of the region (in %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of visitors in the region</td>
<td>-0.542</td>
</tr>
</tbody>
</table>

Source: Own elaboration according to the results of IBM SPSS Statistics, version 25, 2020

This result was surprising for us because we expected a moderate to strong direct dependence. Indirect dependence indicates insufficient marketing communication of specific accessible objects and facilities, as well as the entire region, which acts on the market as a destination not only for visitors with disabilities, but also for other target groups that can use accessible facilities. We consider the result to be an opportunity to streamline marketing communication at the level of the objects themselves, but also at the level of the destinations.

Weak indirect statistical dependence was also confirmed between the economic performance of regions in a specific calendar year, expressed in GDP per capita in current prices (in EUR) and the accessibility of regions (in %) (Table 11).

Table 11. Matrix of correlation coefficient between economic performance of regions and accessibility of regions

<table>
<thead>
<tr>
<th>Researched variables</th>
<th>Accessibility of the region (in%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP / capita at current prices (in EUR)</td>
<td>-0.189</td>
</tr>
</tbody>
</table>

Source: Own elaboration according to the results of IBM SPSS Statistics, version 25, 2020

Indirect dependence points to the need for higher investments in the debarierization of the environment, which can make the area more attractive not only for the visitors with disabilities, but also for other target groups of visitors.

With regard to the achieved result, it is necessary to try to improve the offer of tourism for visitors with physical disabilities in all self-governing regions. Improving the conditions of travel and stay of visitors with disabilities in individual regions of Slovakia is conditioned by meeting the basic requirements. They emerge from the results of the primary research and are also supported by information available on the website of the National Council of Citizens with Disabilities (2011), socpoist.sk (2018) and employment.gov.sk (2018) and take into account the
document of the Ministry of Transport and Construction of the Slovak Republic (2011). The proposals relate to the most important barriers for the physically handicapped, on which we built by defining the basic preconditions for travel and the participation of visitors with disabilities in tourism. These are physical, mental, financial and information barriers. If a country wants to improve the accessibility of its services, objects, and facilities for physically handicapped visitors, it is important that barriers are gradually removed.

Physical barriers are perceived by all people with limited mobility. It applies to people who use wheelchairs, limb prostheses, walkers but also canes, crutches, various compensatory aids (after limb injuries), but even people with mental disabilities, the elderly, pregnant women, people accompanying a child in a pram or a small child under the age of three, people with luggage, with various diseases that have a negative impact on their mobility and obese people. This is an extremely large segment of existing and potential visitors in tourism. The advantage of debarierization is also that it does not limit in any way the largest group of people in society who are free of malfunctions, but on the contrary, also improves the safety and attractiveness of the environment (Ministry of Transport, Construction and Regional Development of Slovak republic, 2011). At the same time, all objects preventing hassle-free access, movement and stay can be considered as physical barriers. The most important prerequisite for the development of tourism for people with physical disabilities is the absence of architectural barriers. In the offer of tourism, architectural barriers apply to all buildings of accommodation, hospitality, transport, spa and wellness, sports-recreational, cultural, and educational facilities, as well as buildings of service providers - travel agencies and tourist information centers.

In addition to removing architectural barriers, it is important to eliminate psychological barriers that arise as a result of society's prejudices against people with disabilities and are manifested in different treatment in situations where other treatment is not desirable. At the same time, psychological barriers often occur in the work area. The Amsterdam Agreement (1999) gave the European Community the right to take measures to prevent discrimination, which was enshrined in Article 13 of the European Communities. In 2000, the European Community adopted two amendments to the article, which were adopted as directives. They state that employers must remove barriers and make appropriate adjustments to the work environment. They include the adaptation of premises and technical equipment, as well as the change of time standards for the performance of work, the redistribution of work tasks and the provision of special training for employees with disabilities.

Psychological barriers can also arise in the process of providing tourism services due to insufficient preparation of employees for visit of visitors with disabilities. Employees should receive training/regular trainings to meet the requirements of this specific segment of visitors.

Financial barriers are perceived by most people with disabilities in Slovakia as the most significant problem. Financial problems relate to the lack of financial resources for people with disabilities, who have minimal employment opportunities. Under such conditions, there is only a small proportion of people with disabilities who can afford to realize their travel plans. We note that there is a large disproportion between the financial resources available to people with disabilities and the prices of the products and services needed to improve, facilitate, and simplify their lives. As to the date of December 30th, 2019, the average amount of the invalidity pension, including also partial invalidity pensions, was EUR 275.54, the amount of the invalidity pension up to 70% was EUR 209.85 and the amount of the invalidity pension over 70% was set at EUR 379.95 (www.socpoist.sk, 2020).

Because fewer traveling needs are met, participation of people with disabilities in tourism is extremely difficult. Most proposals to improve the offerings for people with disabilities are conditional on sufficient funding for their implementation.
Information barriers or the availability of public information for all people, including ones with disabilities, is a necessary condition for their full and equal participation for living in society. They help them with planning a specific goal of their trip, with time planning, with the selection of specific accommodation and hospitality facilities, with the planning of leisure activities, etc. For people with disabilities, it is not enough to know that the hotel has a wheelchair-accessible room, or the museum has wheelchair access. The physically challenged are interested in whether the object has a barrier-free access to all floors, whether access is only exterior or interior, to what extent is parking provided, whether handrails are available in sanitary facilities, etc. (Linderová, 2018). This information is often useful not only for the visitors with disabilities, but also for families with small children, with a stroller and other people with reduced mobility.

Examples of suitable information accessibility can be drawn from abroad (Table 12).

<table>
<thead>
<tr>
<th>Country</th>
<th>Web page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>barrierfreierurlaub.at; <a href="https://www.wien.info/en/travel-info/accessible-vienna">https://www.wien.info/en/travel-info/accessible-vienna</a></td>
</tr>
<tr>
<td>Spain</td>
<td><a href="http://www.accessiblespaintravel.com">www.accessiblespaintravel.com</a></td>
</tr>
<tr>
<td>England</td>
<td><a href="http://www.visitengland.com/plan-your-visit/access-all/accessible-english">www.visitengland.com/plan-your-visit/access-all/accessible-english</a>; accessibleguide.co.uk</td>
</tr>
<tr>
<td>Poland</td>
<td><a href="http://www.accessibletour.pl">www.accessibletour.pl</a></td>
</tr>
<tr>
<td>Greece</td>
<td><a href="http://www.accessgreece.com">www.accessgreece.com</a></td>
</tr>
<tr>
<td>Israel</td>
<td><a href="http://www.israel4all.com">www.israel4all.com</a></td>
</tr>
<tr>
<td>New Zealand</td>
<td><a href="http://travability.travel/content/about-us">http://travability.travel/content/about-us</a></td>
</tr>
<tr>
<td>France</td>
<td><a href="http://en.parisinfo.com">http://en.parisinfo.com</a>; accessible.net</td>
</tr>
<tr>
<td>Countries of the USA, Canada, Europe, America, Asia and Africa</td>
<td>wheelchairtraveling.com</td>
</tr>
</tbody>
</table>

Source: Own elaboration according to accessibletourism.org (2018), Linderová (2018)

Information on the accessibility of tourism people with disabilities in the self-governing regions of Slovakia is currently not available in a comprehensive form on the Internet.

Conclusions

In the post-pandemic period of Covid-19, many countries will need to restructure their tourism product, which can be an opportunity for the development of tourism for the visitors with disabilities. This article focused on the analysis of the tourism demand side of the visitors with disabilities in Slovakia and finding the accessibility of tourism supply in Slovakia for visitors with disabilities. We tried to find out whether the demand for tourism services of the affected segment exists at all and if so, whether the satisfied demand indicates the satisfaction of visitors with disabilities with the current tourism supply in Slovakia. We used contact with people with disabilities through the representative organizations that associate them. We researched which problems in the current tourism supply they perceive as critical and what needs to be changed so that the supply is adapted to the requirements of all visitors without distinction. The results of the survey confirmed that people with disabilities are interested in traveling, use the current opportunities to an individual extent, but generally perceive the supply as insufficiently adapted, which significantly limits their travel opportunities. We found from the total number of 11,281 surveyed objects and facilities in Slovakia, less than 20% are fully or partially accessible. This means that the offering in Slovakia is still insufficiently adapted. In this paper, we used correlation analysis (calculation of tightness rates of dependence of monitored variables) to determine the dependence between variables in the analytical part of the publication, which we assumed to confirm the importance of achieving accessibility of tourism facilities with respect to attendance. We also searched for a statistical connection between economic performance of destinations at the level of self-governing regions and the achieved accessibility of facilities and
objects in the area of the monitored destinations. We achieved the set goal, which was to examine the degree of adjustment of tourism supply for visitors with physical disadvantages in Slovakia and to find out the connection between the accessibility of tourism objects and facilities and the attendance of destinations.

Due to the large representation of tourism objects and facilities in the country and the diverse requirements for their adaptation depending on the specific type of disability that causes disadvantages, this article focused on adapting the supply to visitors with physical disadvantages. Of all people with disabilities in the country, the people with physical disabilities are the most numerous. Requirements for customizing the supply for this segment of visitors need and will be appreciated by other groups of visitors, including seniors, people with weight issues, people accompanying a pram, or a person with a disability, all persons who are less physically fit (children, individuals with current movement problems due to injury, acute deterioration of health, which also results in movement restrictions, etc.). The adjustment of the supply for these segments of visitors does not cause any restrictions for healthy people, resp. for those who do not feel physical discomfort, on the contrary, such an adjustment generally makes the destination more attractive and enables better services provision. That is why the adaptation of tourism supply for visitors with disabilities in Slovakia is urgent and desirable.

Despite of an extensive research in Slovakia covering several years, we understand few limits of the research. The research focused on one country even if having examined all self-governing regions, and its research findings from national level cannot be compared to accessibility of adjacent countries. The research lasted continuously from 2016 up to 2021 and several facilities might have changed into accessible ones. The debarrierization and accessibility of tourism facilities and destinations represent a process which is financially, temporally and administratively challenging, therefore, we do not assume any distortion of the findings. Additionnaly, several planned investments have been postponed due to the current pandemic situation affecting Slovakia in 2020-2021. The research focused solely on accessibility of physically disabled visitors and does not cover other segments of disadvantaged people.

Apart of its limits, the paper enriches the academic discussion from theoretical and practical point of view. From theoretical aspect, the paper is the first one to reveal close links between tourism destination accessibility and attendance in context of competitiveness at the international tourism market. We hope to urge the academic community to include factors of accessibility into the understanding and definition of tourism destination competitiveness.

The unprecedent research findings from the point of view of its complexity within V4 countries region, may support the destination management organizations when addressing the sustainable tourism development and the augmentation of destination`s competitiveness. The DMOs determine the number, timing and spatial distribution of supply in tourism destinations with regard to the the requirements of visitors with disabilities and enhance the product accessibility of tourism destinations. The issue of accessibility is strongly appealing within the context of current COVID-19 pandemic as patients report health problems even several months after having overcome the disease which heavily decreases their mobility. We expect an increasing number of people with health disadvantage in the upcoming period, thus emphasising the need of specific approach to infrastructure development and to product development. The current pandemic situation represents a historical occasion for tourism enterprises in terms of modernization and augmentation of the tourism sustainability and accessibility to people with health disadvantages.

Further research is appropriate to focus on the accessibility of the tourism supply for other segments of visitors with disabilities, especially the visually and hearing-impaired visitors. Accessibility of the country in all aspects for various segments of visitors with disabilities can be a significant competitive advantage for the country on the international tourism market.
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85
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