Accessibility of Tourist Attractions to People with Mobility Impairments and People with Visual Impairments in the Town of Jihlava

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Abstract: The paper deals with the topic of making tourist attractions in the regional centre Jihlava accessible to the needs of a specific customer segments – people with physical disabilities, namely wheelchair users and people with visual impairments. This is a relevant topic with both economic and non-economic angle and, at the same time, one that is not sufficiently looked into. In the future the number of visitors with disabilities can be expected to increase, being for the given segment of clients adequately prepared may in fact prove to be a competitive advantage.

Key words: Attraction, Physical disability, Visual impairment, Tourism, Tourism market, Wheelchair user

1. Introduction

Tourism has lately become an integral part of the lifestyle in developed societies as a source of relaxation, entertainment, and not least gaining knowledge. Participating in tourism can be one way how to widen our horizons, learn about different cultures and educate ourselves, for many of us it also represents escape from everyday stereotype and a means of maintaining our physical and mental health. Tourism has therefore an important role to play in lives of individuals, at the same time it is an industry of importance for economy of a given region as well as the state – it contributes to the GDP, influences the balance of payments, brings income to local budgets and therefore also to the state budget, positively affects investment activities, supports small and medium size businesses, and above all is an important provider of jobs. Through multiplication effect of tourism values in other industries are also realized.

When taking part in tourism the participant uses services of a number of various businesses and establishments. Tourism market is a highly competitive one and the tourism businesses and establishments as well as attractions aim at the client’s satisfaction resulting in positive references passed on to relatives and friends. These days we keep hearing that the customer, whose expectations, satisfaction, preferences and views are constantly being researched by various means, himself influences future products and services. Despite this there are still situations where a customer has clearly identified his need, has sufficient financial means, yet the services that would meet his very needs are not provided. This situation does not arise because of the client’s excessive requirements; there are still particular segments of demand where the offer is not adequately adapted to the clients’ specific needs, e.g. people with mobility impairments, namely wheelchair users or visually impaired persons.

People with disabilities have the same expectations, dreams and wishes as people without such health related limitations. They too wish to enjoy life, have a good time, learn, travel and fulfil their dreams. Among the most common motivation of disabled people’s travelling there are learning new things, recreation, health, prevention or healing, religious motivation, and shopping (Indrová et al., 2008, pg. 38). Among causes of increased number of people with disabilities are diseases, old age and related complications, genetic disorders, as well as injuries. In 2011 there were 4 794 children with genetic disorders born in the Czech Republic, according to the Institute of medical information and statistics, which represents 441 children born with genetic disorders in 10 thousand live-born. Genetic
disorders are more common in boys than girls, and in children born to mothers of older age (Vidurová, 2014, pg. 12-13).

2. Methodology
The work on the paper was preceded by study of specialist topic related literature and further secondary sources of information related to the given topic. The survey of the attractions available for wheelchair users in Jihlava was carried out during the month of September as a part of the “International Student Workshop” concerning the topic “Accessible Tourism for Disabled People”. The students, having acquired theoretical knowledge of specific needs of clients with handicap, were divided into teams, each of which was allocated particular attractions where they were subsequently doing their research. The researchers prior to commencing the research familiarized themselves with the ADA Checklist for Existing Facilities used in surveys commissioned through ADA Research projects. There were four criteria evaluated in visited objects: Getting there / Getting in / Using facility / Getting out in an emergency on a scale: Easy without assistance (1) / Without assistance, but difficult (2)/ Yes, but only with assistance (3)/ No (4).

The actual survey was conducted through the method of mystery shopping – student teams were using a wheelchair and posed as disabled visitors of given attractions. Following the visit, the students filled in pre-prepared forms according to their actual experience. Such field research was preceded by desk research in which the students identified each object to be evaluated on the map and found relevant information concerning it – this information was subsequently verified in practice.

The other part of the research was carried out in cooperation with the public benefit organisation “Tyflo Vysočina Jihlava” O. P. S., which provides blind and seriously visually impaired citizens with services. Blind people (they were fully blind in all cases) themselves were evaluating two out of four examined criteria (the sense of visit for the given segment and orientation in the facility), next it was assessed whether the facility has Braille and whether the audioguide is available.

3. Theoretical Bases
3.1. Disability and handicap
A disability is some abnormality in the health of a person that limits him in certain activities such as mobility, quality of life, or role in society. Disability results in restriction or loss of ability to perform activities in a manner or to an extend considered to be normal (Slowik, 2007, pg. 27). A society of so-called healthy people (people without disabilities) often sees disabled people as having the life that is less worth living. Some are deprived of visual perception of the world, which stops them from participating in the number of activities and generally limits them (Koudelová, Květoňová, 1996, pg. 3). A handicap is a social disadvantage of a person due to disability that manifests itself in some areas of social life. A disabled person does not necessarily have a handicap.

According to World Health Organization (WHO), over a billion people, about 15% of the world's population, have some form of disability. Between 110 million and 190 million adults have significant difficulties in functioning. Rates of disability are increasing due to population aging and increases in chronic health conditions, among other causes. People with disabilities have less access to health care services and therefore experience unmet health care needs. Studies indicate that, of these, some 10% require a wheelchair. It is thus estimated that about 1% of a total population – or 10% of a disabled population – need wheelchairs (WHO, 2014a).

For the development of tourism for people with disabilities, it is necessary that accommodation and catering facilities, visitor attractions, and other tourism enterprises respect the needs of this segment concerning especially the necessity of barrier-free adjustment of the space, while the barrier freedom is understood as creating a space that is accessible and safe. Each disability has its specifics and thus people with different types of disabilities also have different needs and requirements while travelling.

3.2. Physical disability
Under the Czech legislation, the term physical disability is reduced only to musculoskeletal disorders. Physical disability is defined as impaired mobility measured both in qualitative and quantitative terms. The physically disabled
have visibly affected lower or upper extremities. Physical disabilities can be congenital or acquired. Congenital defects occur during intrauterine life, during birth or shortly after. Acquired defects are usually caused by an injury or various diseases that have a negative effect on the motoric system and may occur at any time of a person’s life.

3.3. Visually disabilities
According to WHO, 285 million people are estimated to be visually impaired worldwide: 39 million are blind, and 246 have low vision. 82% of people living with blindness are aged 50 and above. Globally, uncorrected refractive errors are the main cause of moderate and severe visual impairment; cataracts remain the leading cause of blindness in middle- and low-income countries. (WHO, 2014b)

For visually impaired persons it is more suitable from the perspective of the stay itself and orientation to stay longer at one place than to often change for new places. The blind person gets familiar with the environment and does not have problems orienting and moving independently along usual routes. It is good for the personal to inform visually impaired clients about architectural barriers which could complicate the stay or even cause an injury (Hájková et al., 2006).

3.3.1. Braille
A system of writing for individuals who are visually impaired that uses letters, numbers and punctuation marks made up of raised dot patterns. In 1824, Louis Braille, who lost his eyesight due to a childhood accident, developed his code for the French alphabet as an improvement on night writing. The second revision, published in 1837, was the first binary form of writing developed in the modern era.

3.4. Tourism for all
UNWTO (World Tourism Organization) defines a disabled person as a physically or mentally impaired person whose physical or mental integrity is partially or completely reduced either from birth or due to advancing age, illness or accident to such extent that his independence, ability to attend school or work is disrupted (UNWTO, 1999). Global Code of Ethics for Tourism of the World Tourism Organization, adopted by the UN in 2001, deals with the issue of tourism for people with disabilities in article 7, where it states that the prospect of direct and personal access to the discovery and enjoyment of the planet’s resources constitutes a right equally open to all the world’s inhabitants. According to the Global Code of Ethics, Convention on the Rights of Persons with Disabilities, it is necessary to ensure the right to travel for all people indiscriminately, i.e. also for people with disabilities. According to the same document, the universal right to tourism must be regarded as the corollary of the right to rest and leisure, including reasonable limitation of working hours and periodic holidays with pay.

Tourism for people with disabilities falls into the category of social tourism. The aim of social tourism is to make activities associated with travelling accessible to all - therefore also to groups that ar for some reason disadvantaged, and for whom participation in tourism can otherwise be difficult. These are mainly families with children, youths, students, the elderly and people with disabilities. (Hesková et al., 2006, pg. 36). The main benefits of social tourism include reducing seasonality, positive impact on employment, greater social and economic stability of entrepreneurs in tourism and also health, social and integration advantages of target groups.

Philosophy of tourism for all meets the criteria of quality tourism, where by quality is meant the fact that a destination takes into account all the expectations of tourists with special needs and offers them comfort, attractions, and safety in accordance with the right to participate in tourism, which is the universal right of every human being. This right is enshrined in the Global Code of Ethics for Tourism.

In 2001, the issue of tourism started to be dealt with by the European Union when, within the framework of the conference Tourism for All, priorities were identified. Each Member State should endeavour to promote social tourism through various measures (e.g., through associated policies and initiatives). In 2010, the Czech Government approved the National Tourism Support Programme for the period 2010-2013. National Tourism Support Programme is one of the tools for implementing the Concept of state tourism policy of the Czech Republic for the period 2007-2013. By creating this program, the Czech Republic joined project CALYPSO comprising activities that promote social tourism initiated by the European Union. This project seeks to facilitate accessibility of places of interest for the disabled and
families with children. The main motto of the project CALYPSO is that vulnerable groups of people should have equal opportunities to travel as others.

3.5. Ada
The Americans with Disabilities Act (ADA) became law in 1990. ADA is a civil rights law that prohibits discrimination against individuals with disabilities in all areas of public life, including jobs, schools, transportation, and all public and private places that are open to the general public. The purpose of the law is to make sure that people with disabilities have the same rights and opportunities as everyone else (ADA, 2014).

4. Interpretation of the Investigations

4.1. Accessibility of tourist attractions for wheelchair users
The survey was conducted in a total of twenty buildings located in the town of Jihlava. These twenty objects that can be visited by participants of tourism, as well as locals, were divided into four further subcategories - sights, culture establishments, sports establishments and other establishments. Figure 1 indicates that more than three-quarters of the objects are at least partially accessible to potential visitors - wheelchair users. Only underground corridors and underground collectors, Gate of Holy Mother and Town Hall of Jihlava are completely inaccessible. In the case of visiting the historic underground corridors a visitor must negotiate relatively slippery and uncomfortable stairs when going down, the tour itself leads through sections built mostly in the 14th century - for these reasons it would be utterly impossible to get into the underground and take a tour using a wheelchair. Jihlava underground collectors located up to 25 meters underground are modern tunnels, located several floors below the historic underground. Individual floors are accessed on ladders; the route is therefore not suitable for children, the elderly or the disabled. In the case of historic buildings, these are cultural monuments and for this reason, it is necessary to comply with the interests of the historic monument conservation, making the wheelchair access impossible.

In order to provide wheelchair access to Gate of Holy Mother and Town Hall of Jihlava, it would be necessary to install wheelchair staircase platforms into these buildings. Prices of such platforms range within hundreds of thousands of crowns. For these types of staircases SP Omega platforms (manufacturer Sunrise Medica), which can be installed onto straight, multi-turn and spiral staircases both inside buildings and outdoors seem to be appropriate. The platforms can be used for staircases at least 850 mm wide and can be installed without any structural alterations. The price of one of these staircase platforms (as of January 10, 2015) is 220 000 CZK. When calculating the return on the investment made by the Town Hall of Jihlava, taking into account only the fix costs and reduced admission fee for holders of ZTP and ZTP/P of 35 CZK, the price for purchasing the platform would be “paid” by 6286 people. Another problem is that the historic buildings in question are protected by the National Heritage Institute and their conservation has to be respected.
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4.1.1. Sights
In Jihlava, there are six sights visited by domestic and foreign visitors alike. Local churches were not examined because these objects can be visited only during worship services. As already mentioned above, in four of buildings (Underground Corridors, Underground collectors, Gate of Holy Mother and the Town Hall of Jihlava) it was established that these are not accessible to the given segment, and therefore they were not further analysed. The remaining two objects were subjected to detailed analysis. Fortification area comprises medieval walls built in the first half of the 13th century, surrounding the historic centre of Jihlava. All surveyed criteria were rated as "without assistance, but difficult". The fortification area is used by visitors for walking, sitting down and relaxing – visitors are not offered any additional services, therefore the category "Using facility" could not be evaluated. Jewish cemetery, which is a noteworthy reminder of the existence of a Jewish community in Jihlava, was evaluated, similarly to the fortification area, as a sight that can be visited by a wheelchair user "without assistance, but difficult". The difficult part, in this case, is the access to the object and moving around it. As in the case of the fortification area, visitors are not offered any additional services, thus the category "Using facility" could not be evaluated. The difficult access to the cemetery and movement around it is largely influenced by the weather - especially due to movement on unpaved surfaces.

4.1.2. Culture establishments
In Jihlava, there are seven cultural facilities, used by local residents and visitors to the city. All seven of these objects were surveyed. Best rankings were awarded to the Horácké theatre and Dukla cinema - thanks to the existence of ramps, it is possible for the wheelchair user to get into the building without the assistance of another person; the entrance to the auditorium is also adapted for wheelchair users. Barrier-free is also the second cinema in the city, Cinestar cinema. As problematic can be viewed only the last criterion due to the need to use the elevator on the way to and from the cinema. As a general rule, it is forbidden to use the elevator in case of emergency - for this reason, the last criterion (getting out in the emergency) was assessed as unsatisfactory for a given segment of clientele. The evaluation of the House of Gustav Mahler proved quite controversial; although this attraction presents itself as barrier-free and actually has, among other features, barrier-free toilets, it is very difficult to access the object (narrow and uneven pavement along the road, paved with bricks), as well as difficulty getting into the building (stairs, rails on demand, however, assistance needed). In order to move around the premises the wheelchair user has to use elevator; for this reason, the last criterion is evaluated negatively. As for the regional Gallery of Highlands, as well as the Cultural House, the wheelchair access is facilitated only in some parts of the building. The last object, the Museum of Highlands, has a facility that can be used on stairs and allow wheelchair access to the higher floors - but this facility necessarily requires assistance and its use is not very user-friendly.

4.1.3. Sport establishments
In the category of sports establishments were evaluated three facilities. The town, of course, has a large number of sports facilities - indoor and outdoor playgrounds and gyms. These serve mostly to local residents. Visitors of Jihlava use, as a rule, just three surveyed objects - aqua park Water Paradise, Swimming pool Evžena Rošického and Horácký ice arena, visited by participants of passive sports tourism as fans. The first evaluated object was aqua park Water Paradise, a very popular entertainment centre in the Highland region that can be visited all year round. Water Paradise offers an oval swimming pool for visitors seeking relaxation, as well as numerous attractions for active leisure, such as Microsoft toboggan, double slide, the wild river, pearl mattresses, wall massage nozzles, underwater blowers, water fountains, large mushroom, and water wall with underwater lights. The access to the building and the entrance to the building was evaluated by the surveyors as "easy without assistance", the facility even has a separate dressing room and a barrier-free shower, which can be used to enter the interior and covered part. Unfortunately, the indoor or outdoor sections do not have a device that would help people in wheelchairs to get in and out of the pool - there is therefore a need for the assistance of another person. The next evaluated facility was the swimming pool E. Rošického. There is also disabled access to the building, at the same time; there are ramps available for easier wheelchair user access to and from the pool. During the opening hours, times, when the ramps are used, are specified; there are also instructors and assistants available to customers upon prior request. The last object evaluated in the category of sports establishments was Horácký ice arena. The access to or inside the facility poses no problem also moving around the stadium is easy. The problem, however, is the absence of barrier-free toilets.
If you have any questions or need further assistance, please let me know. I'm here to help! 😊
4.2. Accessibility of tourist attractions for people with visual impairments

The table includes touristic attractions of the city of Jihlava. The blind eliminated eight out of twenty-one facilities as their visit would not make sense due to their handicap. Surprisingly the Regional Gallery of Highlands stayed among buildings suitable for blind or purblind persons due to the exhibitions of the “touch gallery” type, which is specifically designed for visually impaired visitors (not a permanent exposition). The blind showed an interest in visiting the Horácký ice arena during an ice hockey match – although they cannot watch the match, they enjoy the unique atmosphere. In the thirteen selected facilities, the blind then evaluated whether they would be able to visit the building on their own; in the case of the Horácký ice arena a visit without a guide was rejected due to safety reasons. The blind usually prefer visiting unknown places and new facilities for the first time with an assistant, but even this is very subjective and it always depends on the personality of the individual. In five facilities in Jihlava (House of Gustav Mahler, Museum of Highlands, the regional Gallery of Highlands, aqua park Water Paradise, the Cultural House) the researchers found no barriers that would prevent them from visiting them without a guide – the orientation in the building was evaluated as easy and barrier-free in these cases. The facilities also dispose of personnel that are able and willing to help. The other facilities were recommended to the blind to be visited with a guide. Braille code is available only in one attraction in Jihlava; it is not a complexly equipped exposition, but the only occurrence of the code in signage. Four facilities dispose of an audio-guide.

5. Conclusion

The goal of this paper was to outline the present state of accessibility of tourist attractions in the town of Jihlava to the needs of specific customer segments – the wheelchair users and people with visual impairments. The conducted research shows that only one-fifth of the attractions, visited by tourists in Jihlava, are not accessible to wheelchair users. All four of these objects fall into the category sights. All the remaining objects were rated as at least partially accessible to wheelchair users. Taking into account all the surveyed criteria (in particular the criterion "Getting out in emergency"), the buildings, which use a wheelchair lift (multi cinema Cinestar, the House of Gustav Mahler) or require greater assistance when entering or moving around the site (House of Gustav Mahler, Museum of Highlands) do not appear to be always appropriate for wheelchair users. For persons with serious visual impairment, thirteen facilities come into consideration; in the case of eight out of them, there is a need for a guide attendance. Only one facility disposes of Braille code and in four facilities there is the option of borrowing an audio-guide.

In the future, the number of visitors with disabilities can be expected to increase, in particular, because their percentage in the population will grow due to the aging population. One of the reasons is the reduction in birth rate; currently, we are talking about the post-reproductive component of the population significantly outnumbering the infant component. At the same time, today's population has a greater chance of reaching older age due to higher living standards and medical advances. For this reason, it is certainly desirable that individual businesses and facilities were for the given segment of clients adequately prepared - and it may, in fact, prove to be a competitive advantage.
Table 1: Accessibility of tourist attractions for people with visual impairments

<table>
<thead>
<tr>
<th>Tourist attraction</th>
<th>Reasons to visit</th>
<th>Guide attendance</th>
<th>Braille</th>
<th>Audioguide</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sights</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Underground corridors</td>
<td>Yes</td>
<td>HR</td>
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</tr>
<tr>
<td>Underground collectors</td>
<td>No</td>
<td>NE</td>
<td>No</td>
<td>No</td>
</tr>
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<td>Fortification</td>
<td>No</td>
<td>NE</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Gate of Holy Mother</td>
<td>No</td>
<td>NE</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Jewish cemetery</td>
<td>No</td>
<td>NE</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Town Hall of Jihlava</td>
<td>No</td>
<td>NE</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Culture establishments</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Museum of Highlands</td>
<td>Yes</td>
<td>NN</td>
<td>No</td>
<td>Yes</td>
</tr>
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<td>House of Gustav Mahler</td>
<td>Yes</td>
<td>NN</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>The Regional Gallery of Highlands</td>
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<td>NN</td>
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<td>No</td>
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<td>Horácké theatre</td>
<td>Yes</td>
<td>R</td>
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<tr>
<td>Cinema Dukla</td>
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<td>No</td>
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</tr>
<tr>
<td>Cultural House</td>
<td>Yes</td>
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<tr>
<td><strong>Sport establishments</strong></td>
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<td></td>
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<tr>
<td>AquaparkVodníráj</td>
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<td>NN</td>
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<tr>
<td>Swimming pool Rošického</td>
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<td>R</td>
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<td>Horácký ice arena</td>
<td>Yes</td>
<td>HR</td>
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<td>No</td>
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<tr>
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<td>HR</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>ZOO</td>
<td>Yes</td>
<td>R</td>
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<td><strong>Other establishments</strong></td>
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<td></td>
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</tr>
<tr>
<td>Organic Farm Sasov</td>
<td>Yes</td>
<td>R</td>
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<td>No</td>
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<tr>
<td>City park</td>
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<td>NE</td>
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<td>No</td>
</tr>
<tr>
<td>Salt cave Salinera</td>
<td>Yes</td>
<td>R</td>
<td>No</td>
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</table>

**Note:** HR – highly recommended; R – recommended; NN – not needful; NE – not evaluated.

**Source:** Own survey

Following the findings, a significant context arises – e.g. the accessibility of facilities in case of other disabilities, comparison of accessibility of tourism attractions on both the national and international level, the analysis of availability of accommodation and catering services by specific clients, the analysis of staff readiness for clients with various types of disabilities etc. and the last but not least also proposed measures that can lead to an improvement of the current state. The given topic will be solved in more detail within the author’s doctoral thesis.

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References
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