



Technological Assistant in Accessibility For disabled Customers in Jyväskylä Hotels

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Abstract

The increasing need for accessible tourism has brought attention to the importance of both physical and digital accessibility in hotels, especially for individuals with disabilities. The issue was examined by combining these two aspects of accessibility in hotels in Jyväskylä, Finland, with a focus on technological assistance for disabled customers. While physical accessibility has been widely studied, the integration of digital accessibility into tourism services was explored to address the challenges faced by disabled tourists.

The objective was to assess the standards of both physical and digital accessibility in Jyväskylä hotels and evaluate how assistive technologies could improve access for disabled customers. Key areas of investigation included accessible documentation, services, and facilities, as well as the role of digital tools in supporting and enhancing physical accessibility measures. The research aimed to determine how technology could overcome social, infrastructural, and other barriers limiting the participation of disabled individuals in the tourism sector.

A qualitative research method was employed, involving observations of hotel facilities and structured interviews with hotel managers and disabled customers. The data gathered provided insights into the challenges of providing equal access, identifying gaps in both physical and digital accessibility, and assessing the impact of existing assistive technologies. The results revealed that little or insufficient progress had been made in the implementation of digital accessibility tools, significant inequalities remained in both domains. The potential for expanding the market by providing more inclusive services to disabled customers was identified, in alignment with the EU Accessibility Act 2025 and Finland's National Tourism Strategy.

It was concluded that the integration of digital accessibility into hotel operations could enhance the overall experience for disabled customers and offer strategic growth opportunities for businesses in the tourism industry. Recommendations were provided to improve both physical and digital accessibility standards in Jyväskylä hotels, emphasizing the need for greater inclusivity, awareness, and equal access to tourism services for all.

Keywords/tags (Digital Accessibility, Physical Accessibility, Assistive Technology, Tourism Industry, Disability Inclusion, Jyväskylä Hotel, Tourism Services)

Miscellaneous (Confidential information)

Contents

1	Introduction	4
2	Research Design	7
2.1	Research Problem and research questions.....	9
2.2	Qualitative Research method.....	9
2.3	Data collection.....	10
2.4	Data Analysis	14
3	Assistive Technology.....	17
3.1	Accessibility and Inequality in Tourism and Hospitality Industry	20
3.2	Disability.....	21
3.3	Assistive Technology and Digitalization	22
4	Tourism	23
4.1	Tourism in Finland.....	24
4.2	Accessibility in Finland’s tourism strategy	25
4.3	Jyväskylä as a tourism Destination.....	27
5	Economic impact of tourism in Finland.....	28
5.1	International tourism	29
5.2	Domestic tourism	29
5.3	Employment in tourism.....	31
5.4	Hotels in Jyväskylä.....	31
6	Research Results.....	33
6.1	Results of Interviews and Observations.....	34
6.2	Hotel verso and Yöpuu	36
6.3	Scandic Laajavuori	38
6.4	Sokos hotel paviljonki.....	39
6.5	Wheelchair user and older couples	41
7	Conclusion and Recommendations.....	49
8	Discussion.....	52
8.1	Research process.....	53
8.2	Reliability and Validity.....	56
	References	57
	Appendices	61
	Appendix 1. Accessible supportive tools from scandic Hotel Lajaavouri (pictures taking by the author, 2024).....	61

Appendix 2. Accessible supportive tools from Hotel Verso (pictures taken by the author, 2024)
62

Appendix 3. Accessible supportive tools from Hotel Yöpuu (pictures taken by the author, 2024)
63

1 Introduction

This thesis aims to examine the issue of inequality by combining standards of physical and digital accessibility in hotels in Jyväskylä. While physical accessibility has been a primary research topic studied by many researchers, this thesis seeks to incorporate the aspect of digitalization to explore digital availability, contributions, and improvements in access for people with disabilities.

The thesis focuses on technological assistance in accessibility for disabled customers in Jyväskylä hotels. This topic encompasses various aspects of accessibility in the tourism industry, including accessible documentation, services, and facilities in hotels and other tourism businesses. Digital accessibility is a body of knowledge that enhances human capacity and productivity by facilitating and enabling our interactions, connections, and transactions in various activities. Digitalization and technology strengthen and supplement our development in various areas, including business growth, market expansion both online and offline, increased production, and the development and availability of services. They also improve interaction and facilitate access to products and services. Assistive technology encompasses equipment, devices, and systems that can be used to overcome social, infrastructural, and other barriers that limit the experiences and participation of disabled individuals in all aspects of society (Hersh & Johnson, 2008, p. 4).

As the number of people with disabilities increases, approximately one-third of the global population is affected by some form of disability, which spans all demographic stages. Given this reality, it is estimated that everyone will experience some form of accessibility limitation in their lifetime, whether related to physical conditions or not. Accessibility in tourism requires large-scale collaboration from all stakeholders, including governments, international agencies, and tour operators, to emphasize equal access and experiences for all tourism products and services. This includes accommodations, shopping, transportation, information, and dining. (United Nations Department of Economic and Social Affairs, Disability, 2015)

According to the United Nations (2015), approximately 15% of the global population—equivalent to about 1 billion people—are affected by disabilities. Among older individuals aged 60 and above, over 46% have a disability, with more than 250 million older people experiencing severe disabilities. The United Nations World Population data from 2015 analysed and projected trends in the global population across various countries and regions. It is estimated that by 2030, the number of older individuals in society will continue to rise.

The results of this thesis will provide recommendations on how to make hotels in Jyväskylä more digitally and physically accessible for disabled tourists. This research supports the EU Accessibility Act 2025 and Finland's National Tourism Strategy, both of which advocate for the implementation of modern technology in businesses to ensure equal access to facilities, information, and services.

The thesis offers innovative recommendations for hotels and other tourism businesses in Jyväskylä. It notes that the size of domestic tourists and consumers of tourism services exceeds our current demand. There is a potential market segment that requires additional support to access these services. Additional recommendations from the thesis emphasize the potential for tourism in the region and propose strategic approaches to maximize tourism markets. Unrestricted access to tourism services in Jyväskylä and Central Finland should be provided for everyone in our society, regardless of their status

Statistics Finland (2024) defines domestic tourism as the activity undertaken by nationals or residents who travel outside their residential environment to visit various destinations within their country for leisure, business, or other purposes. According to the Ministry of Economic Affairs and Employment of Finland (2023), the tourism sector has shown growth post-pandemic. Domestic tourism, which has historically accounted for a significant share of Finnish tourism activities, represented 55% of total tourism demand and plays a crucial role in sustaining tourism services year-round. In 2022, domestic tourism accounted for 65% of total tourism demand in Finland, reflecting a growth of EUR 0.2 billion (+2%), an improvement compared to previous years. Growth continued in 2023, with domestic demand increasing by 11%, although this was slightly lower than pre-pandemic levels. Furthermore, the Ministry underscores that domestic tourism was vital in all Nordic

countries during the COVID-19 pandemic, sustaining tourism businesses and services when international tourism faced severe restrictions (The Ministry of Economic Affairs and Employment of Finland 2023).

The research project "Exploring Domestic Tourism in the Nordics" (2023) examined the value of domestic tourism across Nordic countries and autonomous areas during the pandemic. It highlighted that domestic tourism is expected to maintain a significant share in Nordic tourism in the future. The findings revealed that the pandemic restrictions showcased the potential of domestic tourism while limiting international travel. Before the pandemic, more than half of overnight stays in hotels across Denmark, Finland, Iceland, and Sweden were attributed to domestic tourists, with some Nordic countries reporting up to 90%. Following the relaxation of COVID-19 restrictions, it became clear that inbound tourism was slow to recover, while domestic tourism served as a lifeline for many businesses, helping them to regain stability. (The Nordic Council of Ministers 2023).

Nonetheless, a significant problem persists prevailing inequality in access to tourism businesses from the perspective of disabled customers, who face challenges in accessing facilities, services, and documentation. The technological and digital revolution in the tourism industry has not excluded hotels; they are using various technical tools on their platforms and in their facilities to improve productivity. However, it has become evident that the digital revolution has not involved everyone equally in tourism and other businesses. This inequity has been one of the reasons for the EU Accessibility Act's intervention and its strategic approach to ensuring equal access to facilities, information, and services by 2025 (EU Accessibility Act (EAA) 2025).

The topic of this thesis was chosen during an accessibility course, where experiences of navigating day-to-day life in our society were shared by a disabled visitor. They highlighted the challenges faced in accessing tourism businesses, including transportation, destinations, hotels, and restaurants. We also heard about positive improvements and the optimistic aspects of the digital revolution, particularly regarding feedback on destinations like Barcelona for their technological involvement in accessibility. This discussion served as an inspiring lecture that motivated the decision to study the digital impact on accessibility in hotels in Jyväskylä.

The important aspect of this topic is to highlight innovative areas of accessibility, looking at it from a different perspective than what has traditionally been known. Another key focus is to emphasize the potential for increasing and enhancing access through digital means as society shifts toward digitalization. Moreover, the most relevant aspect of this thesis topic is its unique approach to studying accessibility. Through the research and examination of various literature, thesis, and articles on accessibility, the researcher has not encountered similar studies that investigate the combination of digital and physical aspects to examine the state of inequality regarding the availability of digital and physical tools and standards of accessibility in hotels in Jyväskylä.

This thesis focuses on three major areas in tourism: hotel business, technology, and accessibility. There are various studies in each of these areas; however, some authors have combined these topics in their works. For instance, "Best Practices in Accessible Tourism" by Ambrose et al. (2012) has been one of the most useful and relevant sources of information for the theoretical framework of this thesis, along with other books and articles from the JAMK library. Furthermore, the author found various studies on accessibility, websites about assistive technology, and other resources that contributed to our theoretical understanding. Notable research methods books, such as Holloway & Wheeler (2009), were also consulted. In conclusion, relevant information was accessed by the researcher from the Ministry of Economic Affairs and Employment of Finland and the Visit Finland webpages.

The current unknown situations regarding inequality and the availability of assistive technology in hotels in Jyväskylä raise questions that could be answered by both hotel managers and disabled individuals. The first question is: How does assistive technology contribute to bridging the gap of inequality between disabled customers and other users in terms of accessibility? This question is directed at both parties. The second question, which specifically targets hotel managers, is: What challenges do hotel businesses encounter when enhancing their digital systems to provide equal experiences?

2 Research Design

The author reached out to the hotel managers and disabled customers to conduct a suitable research process and gather information that addresses the research questions. The methodology

used to tackle this issue is qualitative research, which consists of observation and structured interviews. The observation primarily aims to assess the accessibility standards and the availability of modern technological materials in the hotel facilities. The structured interviews involve in-depth, face-to-face discussions focused on the inequality gap, website and service design, development and inclusiveness, the EU Accessibility Act, and awareness of potential market expansion. The interviews were recorded to ensure that data interpretation remains factual and authentic.

Researcher is using a scientific method to investigate the accessibility of assistive technology for disabled customers, addressing the issue of unequal access to facilities, information, and services in Jyväskylä hotels. Taking the action and challenges to study the impact of technology, thesis researcher has chosen the qualitative research method for data collection to access the information that are needed. Sharma & Altinay (2012, p 822), justified the appropriateness of using qualitative research as a single research method or as a part of a mixed method in the tourism field. They added that various areas of tourism, such as lodging, foodservices, and commercials, have used qualitative research. In that case, the researcher opted to employ a single qualitative research method in this thesis program.



Figure 2: Research methodology and strategy for thesis data collection (Holloway & Wheeler, 2009, p 5).

2.1 Research Problem and research questions

The research problem serves as the fundamental reason for this thesis study, the prevailing inequality in the accessibility of tourism services from the perspective of disabled customers. Considering this issue, the research intends to investigate the accessibility standards in hotels in Jyväskylä, the available digital and physical tools, and how these contribute to improving access for disabled customers. The current unknown situations regarding inequality and the availability of assistive technology in hotels in Jyväskylä raise questions that could be answered by both hotel managers and disabled individuals. The first question is: How does assistive technology contribute to bridging the gap of inequality between disabled customers and other users in terms of accessibility? This question is directed at both parties. The second question, which specifically targets hotel managers, is: What challenges do hotel businesses encounter when enhancing their digital systems to provide equal experiences?

2.2 Qualitative Research method

Goodson & Phillimore, (2002, pp. 4-5) Discuss that, qualitative research is a scientific approach to studying issues in our societies where information and knowledge are lacking. This method originated in the social sciences, enabling researchers to explore various phenomena within society. However, qualitative research is often viewed controversially; some social science researchers consider it a default method that is insufficient as a standalone approach for conducting research unless it is accompanied by or precedes quantitative methods. Nonetheless, the accusation that qualitative research is an incompetent technique has been challenged by others for over 25 years. Critics of qualitative methods have faced criticism for their overreaction and lack of reasonable justification for their claim's.

In fact, qualitative research has been recognized as an appropriate approach for studying social life and the circumstances surrounding social issues for many decades. In conclusion to the various perspectives on what qualitative research entails, it is widely regarded as a method that encompasses conceptualization and strategic approaches to conducting social inquiry. In the field of tourism studies, qualitative research has been utilized as a research method for many years (Goodson & Phillimore, 2002, pp. 4-5).

The purpose of choosing this method is to gain an in-depth understanding of the phenomenon and to facilitate access to information regarding feelings, perceptions, thoughts, and the inequality gap surrounding the availability and contribution of assistive technology in Jyväskylä hotels. This choice is also supported by many tourism researchers who regard qualitative research as a fitting and suitable method for studying societal issues. Given that this thesis focuses on the rights of a specific group in our society, it is essential to employ the appropriate method.

The method includes structured interviews which allow for direct dialogue with individuals experiencing these challenges, as well as those who can provide solutions to address the issues in our society. Qualitative methods also encompass observation, enabling the researcher to witness the actual situations that require examination, thereby justifying and supporting the reliability and validity of the results.

2.3 Data collection

Primary data collection was conducted through implementation of structured interviews and observation. The face-to-face interviews involved listening to and conversing with both disabled customers and hotel managers in Jyväskylä. The observational aspect of the data collection focused on assessing the availability of assistive technology in physical facilities, service structures, and website content. This included evaluating accessible rooms, restrooms, restaurants, parking, entrances, spas, and saunas (Holloway & Wheeler, 2009, p. 87, chap. 6).

According to the United Nations Development Coordination Offices (2020, p. 7), all business premises and facilities should meet basic physical accessibility standards that align with universal design principles, which are intended to be accessible to everyone—both people with and without disabilities. These standards include the following:

Signage: Signage refers to internationally recognized symbols and marks of accessibility that are displayed both inside and outside of buildings. These signs are essential for guiding people with disabilities, helping them navigate spaces such as facilities, restrooms, meeting rooms, and other public areas.

Building Access: Ensuring that entryways and pathways to the building are easily accessible for individuals with mobility challenges, including ramps, wide doors, and other accessibility features.

Reception Area: The reception area should be designed to accommodate people with disabilities, providing clear communication, accessible counters, and appropriate seating arrangements.

Restrooms/Bathrooms: Restrooms must be equipped with accessible features, such as wider doors, grab bars, and space for wheelchair manoeuvrability, to ensure that all individuals can use them comfortably and independently.

Meeting and Conference Rooms: These rooms should be accessible, with appropriate seating arrangements, wheelchair access, and technology support for individuals with different disabilities (e.g., assistive listening devices).

Accessible Work Areas: Workspaces should be adaptable to the needs of employees with disabilities, providing necessary accommodations such as adjustable desks, clear walkways, and assistive technologies.

Eating Areas: Dining areas should be designed to accommodate all individuals, with accessible seating, tables, and service areas to ensure everyone can enjoy meals comfortably.

Transportation: Transportation options, including parking, drop-off zones, and public transport connections, must be accessible to people with disabilities, ensuring they can travel safely and independently.

Accessible Bedrooms: Accessible bedrooms should be designed with enough space to allow easy manoeuvring of wheelchairs and mobility aids. These rooms should include features such as wide doorways, lower bed heights, adjustable lighting, and accessible furniture. Additionally, they should have accessible bathrooms with grab bars and roll-in showers.

By incorporating these universal design principles, businesses can ensure that their premises are inclusive and accessible to all individuals, regardless of their abilities.

The data collection for this thesis consisted of five interviews, including four managers, one older couple and one disabled participant. In total, there were seven individual participants. The interviews with the managers of Hotel Verso and Yöpuu were combined and conducted at Hotel Yöpuu. Both managers responded to the thesis questions based on their hotel's accessibility standards.

The first interview with the older couple took place at their home on March 29, and it was recorded. The second interview with a disabled customer was conducted via Zoom on April 1, also recorded at the same time. The interview with the manager of Sokos Hotel occurred on April 10, 2024. The interviews with the managers of Yöpuu and Verso took place on April 22, 2024. Finally, on April 30, the manager of Scandic Laajavuori was interviewed. All interviews with the hotel managers were conducted at their respective hotels and were recorded at the same time.

Each interview lasted approximately 30 minutes, except for the combined interview at Hotel Yöpuu, which lasted 48 minutes. Observations for the research were conducted on the same days as the interviews at the hotels. The managers guided the researcher around the hotel facilities, including accessible rooms, bathrooms, dining areas, walkways, and parking areas. Customer aspects were not observed, as the focus of the thesis research was primarily on the information provided by the managers and customers experiences.

Implementation of structural interview

structured interviews are one of the approaches permitted in qualitative research. This method was employed in the thesis data collection to facilitate and guide the process. An interview guide, consisting of a set of questions, was used to engage participants and help the researcher achieve the objectives of the thesis.

However, the sequence of guided questions varied slightly between interviews. This indicates that the guided interview questions used during conversations have subtle differences based on the

type of hotel and its management structure, whether it be a chain or individual ownership. Similarly, the interview guide was adjusted to reflect the perspectives of disabled participants compared to those of the managers. Overall, the purpose of the interview guide was to ensure that the researcher's objectives were met by collecting similar data from all participants while minimizing time consumption for both parties. The questions in the interview guide were summarized and phrased clearly, with prompts included to facilitate better outcomes (Holloway & Wheeler, 2009, p. 89, chap. 6).

Although the sequences of the guided questions varied, the researcher aimed to gather information about the thesis topic using guiding questions. In other words, the researcher maintained the same objectives while employing different approaches. The guided questions were structured to explore four categories: how accessibility is perceived, the nature of the inequality gaps, the technological tools available both online and in facilities that assist disabled customers, and how these tools promote inclusivity and equality in Jyväskylä hotels. For disabled participants, the guiding questions focused on two main areas: their experiences with accessibility and the availability of assistive technology.

Observation

Observation is another important aspect of the research process that allows researchers to access various data sources, contributing significantly to the research objectives. Holloway and Wheeler (2009, p. 107, chap. 7) note that while interviewing is recognized as a suitable approach for qualitative inquiry, many qualitative researchers acknowledge that observation can enhance the interview strategy. The observation conducted at the participant hotels involved the researcher examining the availability of assistive and digital tools that support equal access to hotel facilities. This observation took place on the same day as the interview, but afterward, when the researcher was guided through the facilities by the hotel managers to inspect the available tools. The aim was to assess how these resources were integrated into the environment to ensure accessibility for all guests.

2.4 Data Analysis

Data analysis is a crucial phase in qualitative research, as it involves interpreting the data collected to draw meaningful conclusions. In this study, the researcher employed a systematic approach to analyse interviews and observations from various hotels in Jyväskylä, focusing on accessibility standards and the availability of assistive technologies. (Holloway & Wheeler, 2009, p. 179-180).

Data was collected through structured interviews with hotel managers and disabled participants, as well as through direct observations of the hotel facilities. This dual approach allowed for a comprehensive understanding of both managerial perspectives and the experiences of disabled customers.

Analytical Framework

All interviews were transcribed verbatim to capture the expression of participants' responses, ensuring that the data could be thoroughly examined. The transcribed data was then analysed using thematic analysis, where key themes related to accessibility, assistive technology, and customer experiences were identified. Codes were developed inductively, allowing patterns to emerge without the constraints of pre-defined categories.

Thematic Analysis: The codes were grouped into broader themes, such as:

- Accessibility Standards
- Awareness of Assistive Technologies
- Customer Experience
- Challenges and Barriers
- Future Improvements

Triangulation, to enhance the validity of the findings, data from interviews, observations, and relevant literature were triangulated. This method ensured that the conclusions drawn were robust and grounded in multiple sources of evidence. Interpretation, the final stage involved interpreting the themes in the context of the theoretical framework. This step connected the findings to existing theories on accessibility and customer experience, highlighting implications for the tourism industry.

Reliability in qualitative research refers to the consistency of research tools and the measurement processes used to achieve the intended results. It also encompasses replicability, meaning that if the research process is repeated using the same methodology, it should yield similar or identical results as initially obtained.

Validity in qualitative research pertains to the credibility and authenticity of the documentation, descriptions, and interpretations made by the researcher. It also involves the trustworthiness of the information shared by participants during interviews (Holloway & Wheeler, 2009, p. 299).

In research, the researcher prioritized both reliability and validity to ensure the credibility and consistency of our findings. Reliability was addressed by carefully designing thesis data collection tools and processes. The researcher ensured that the interviews followed a consistent format, allowing for comparability across different participants. By conducting face-to-face interviews, the interviewer minimized potential communication barriers, which helped maintain a steady flow of dialogue. This direct interaction facilitated a deeper understanding of the participants' responses and enhanced the reliability of the data collected. Furthermore, the researcher aimed for replicability by clearly documenting methodology, including how the selected participants and the questions that were asked. This transparency allows for future researchers to replicate the thesis study using the same methods, thereby validating the findings through consistency in results.

Validity was emphasized through the approach to data interpretation and participant engagement. The researcher actively sought to create a comfortable environment for participants, which encouraged honest and authentic responses. By focusing on the lived experiences of hotel managers and customers with disabilities, the thesis research aimed to capture a comprehensive view of accessibility issues. Additionally, the researcher triangulated the data by combining interviews

with observational research in the hotels. This approach allowed research to compare participants' verbal accounts with the actual facilities and practices observed, further enhancing the validity of our findings.

To address challenges related to the limited understanding of accessibility among some hotel managers, The researcher provided context and clarification during interviews. This helped ensure that participants could respond meaningfully to the questions posed. Despite some difficulties in participant recruitment, the insights were gathered from the available interviews provided valuable perspectives on accessibility practices in the hospitality industry. By consciously integrating these considerations of reliability and validity into our research design, the study aimed to produce findings that are both credible and reflective of the real experiences of the participants.

Ethicality was a fundamental aspect of the research process, guiding how researcher interacted with participants and handled the data collected. The researcher recognized the importance of maintaining the dignity, rights, and welfare of all individuals involved. The research data was carefully protected as promised to the participants, saved in a specific folder with a password known only to the researcher. The researcher directly requested permission from all the hotel managers to take pictures, and consent was granted by each of them.

Prior to conducting interviews, the interviewer ensured that all participants were fully informed about the purpose of the study, what their participation would involve, and how their data would be used. By provided clear information about their right to withdraw at any time without any consequences. Written consent was obtained from each participant, ensuring that they agreed to take part voluntarily. To protect the privacy of participants, the researcher took measures to anonymize their names. Personal identifiers were removed from transcripts, and data was stored securely. Participants were assured that their information would remain confidential and would only be used for research purposes.

Given that some participants were individuals with disabilities, The researcher approached interviews with sensitivity. The thesis researcher adapted a communication style to ensure comfort and understanding, allowing participants to express their experiences freely. The researcher was mindful of any potential emotional distress that discussing accessibility issues might cause and provided

support as needed. The research design and methodology were submitted for ethical review to ensure compliance with relevant ethical standards. This process helped identify any potential ethical issues and provided a framework for conducting the research responsibly. Throughout the research, maintained transparency about our objectives and methods. The researcher acknowledged any limitations in the study and strived to report the findings honestly, avoiding any manipulation of data or misrepresentation of participant views.

By prioritizing these ethical considerations, the researcher aimed to conduct the research in a manner that was respectful and responsible, ensuring the trust of the participants and the integrity of the findings.

3 Assistive Technology

As the researcher further explored theoretical findings, they encountered various studies on the topic of accessibility from a broader perspective. Numerous research efforts address accessibility, usability, inclusion, and recent advancements in assistive technologies that generally apply to all service businesses, including hotels. For example, research on website design and applications is pertinent. In "Best Practices in Accessible Tourism" by Ambrose et al. (2012), the authors apply the same concepts of assistive technology and digitalization to accessibility, usability, and inclusion. This knowledge is equally applicable to hotels as service businesses.

Some website designers and researchers distinctly explain these three key terms—accessibility, usability, and inclusion—in relation to assistive technology. For instance, the World Institute on Disability (2022) outlines these concepts. In the context of hotels, assistive technology can be categorized into two groups: software assistive technology, which includes online website services, and hardware assistive technology, which encompasses physical tools that facilitate movement and communication for disabled individuals within hotel facilities. These may include elevators, wheelchairs, adjustable electric beds, microphones for hearing aids, electronic communication devices, suitable signage, and directions, among others.

Software assistive technology, or digital accessibility, primarily concerns internet accessibility and the information provided on websites. According to W3C Accessibility, Usability, and Inclusion (2016), various factors contribute to inequality in user experiences for the majority and individuals

with special needs. Website content should assume that people with disabilities can equally perceive, understand, interact with, and navigate digital spaces without difficulties.

From a hotel perspective, website content and information must not presume that individuals with disabilities cannot use digital tools. Instead, they should actively support usability and inclusion in service offerings for disabled customers by enhancing websites with assistive technologies.

This includes features like screen readers that read aloud content; screen magnifiers that enlarge text; increased colour contrast; and other supports for individual with low vision. Additionally, voice recognition software can facilitate text input as another form of assistive technology (W3C Web Accessibility, 2016, Accessibility and Usability section, para. 2). It is also important to use clear grammatical construction and simple, understandable language to enhance accessibility.

However, there remains a significant gap between equivalent users and individuals with disabilities regarding accessibility. Ambrose et al. (2012) highlights an important issue in their book, "Best Practices in Accessible Tourism," noting that during their research, they recognized several misunderstandings between service providers in both the public and private sectors and those in need of accessible accommodations worldwide.

Disabled individuals often experience a high level of discomfort and frustration due to a lack of information, accessible facilities, documentation, and overall satisfaction. Service providers and tourism operators also face challenges in delivering quality and equitable services to this special group. Additionally, tourism operators have expressed their difficulties in navigating the complexities of disability and access, along with concerns about the extra costs associated with providing quality and equal services for disabled customers.

According to the United Nations Department of Economic and Social Affairs Disability (2015), accessible tourism aims to ensure that all individuals have equal access to and experiences in destinations, products, and services. As the number of people with disabilities increases—approximately a third of the global population is affected by some form of disability across all demographic stages—it is estimated that every person will experience some form of accessibility limitation in their lifetime, regardless of physical conditions. Accessibility in tourism requires large-

scale collaboration among all stakeholders, including government agencies, international organizations, and tour operators, to emphasize equal use and experiences of all tourism products and services. This includes accommodations, shopping, transportation, information, and dining.

Specifically, the number of people aged 60 and above is expected to increase by 56%, growing from 901 million to 1.4 billion by 2050. Additionally, projections suggest that the older segment of the global population may reach approximately 2.1 billion people. The report highlights that the increased prevalence of disabilities among older individuals is largely due to the accumulation of diseases, injuries, and chronic illnesses over their lifetimes, which contribute to physical decline (United Nations 2015).

Statista data analysis (2022) indicates that Central Finland have a population where 24.4% are aged 65 and older. This suggests a significant number of individuals in Jyväskylä may experience disabilities and require assistance in their daily lives.

Usability

W3C Web Accessibility (2016) discusses usability in the "Distinctions and Overlaps" section, emphasizing it as the conceptual design of products and services that effectively and efficiently include everyone. The ideology of usability in product and service design aims to avoid negative and limiting experiences for disabled individuals, instead enhancing their sense of inclusion and affirming their importance alongside every other person in society.

Inclusion

W3C Web Accessibility (2016) states, "It is about diversity and ensuring the involvement of everyone to the greatest extent possible. In some regions, this is also referred to as universal design and design for all" (Distinctions and Overlaps section, para. 3).

The Finnish Association of People with Disabilities describes inclusion in its Accessibility Campaign (2024, Accessibility Is More section, para. 2) as the understanding of our diversities and differences, emphasizing the importance of incorporating humanity into our daily lives. This involves

recognizing ourselves in the experiences of others, fostering emotions and empathy. Furthermore, it highlights that our differences do not diminish anyone's equality regarding rights and overall quality of life.

Universal Design

The Accessibility Handbook (2023, p. 21) Universal design is a global trend that promotes equality for all individuals by creating and facilitating access to all products and services without limitations or differentiation. This approach goes beyond merely addressing accessibility in accommodations; it encompasses all aspects of product and service development. It explains that the concept of universal design emerged in the 1980s in response to the recognition of limitations in product and service development that catered primarily to specific groups. Ronald Mace and his team of architects and designers conceptualized universal design to promote equality and inclusivity in all products and services globally. Examples of universal design include ramps at building entrances, signage and wayfinding text with clear colours and symbols, accessible doors that everyone can use without difficulty, and inclusive public transportation.

3.1 Accessibility and Inequality in Tourism and Hospitality Industry

Accessible tourism is a phenomenon that extends beyond merely providing access and information to disabled individuals. It encompasses an interconnected approach that considers all areas of operation within the tourism and hospitality sector, involving all stakeholders. This form of tourism involves collaborative processes among stakeholders, enabling people with diverse access requirements—such as mobility, vision, hearing, and cognitive needs—to function independently and with equity and dignity. This is achieved through the delivery of universally designed tourism products, services, and environments. Accessible tourism encompasses the creation of universally designed products and services that cater to various groups, including families with young children, the aging population, and the need for barrier-free environments. It also emphasizes safer working conditions for employees, the availability of supportive materials, and the integration of digital tools and technology. However, inequality in service businesses persists worldwide. Accessibility inequality is a phenomenon that has been overlooked for decades in business development,

planning, and strategy. In the past, businesses were developed without adequate attention to accessibility and equality considerations. (Buhalis & Darcy, 2011, pp. 10-11, in Ambrose et al., 2012, p. 3).

Nonetheless, progressive actions have emerged as digitalization and automation have steadily integrated into businesses. Significant changes in accessibility across many tourism businesses, particularly in digital services in developed countries, have been witnessed over the years. Laws and policies promoting accessibility and equality have been enforced by governments and legislation in these countries, raising awareness and establishing accessibility as a prominent trend and phenomenon in the tourism sector today. (Hersh & Johnson, 2008, p.423).

3.2 Disability

Demographics is the study that analyses changes, trends, and the structure of a population within a particular society. This analysis includes factors such as gender, age, birth rates, and mortality. The thesis research will focus specifically on the aging aspect of demographics. The increasing life expectancy in developed countries, including Finland, has significantly contributed to a higher percentage of older individuals in the population, which presents various challenges related to disabilities among the elderly.

Aging can limit many individuals in terms of their life expectations and overall performance. As technology continues to advance, it becomes essential to ensure that a growing percentage of the population has the assistance needed to access products and services equitably.

The Accessibility Handbook (2023, pp. 15-16) discusses the concept of disability and highlights significant improvements and achievements in disability rights. Historically, disability has been viewed as a defect or medical condition, with disabled individuals considered dependent rather than equal members of society. However, advancements in technology, healthcare, and social policy have improved general perceptions and acceptance of disability. Despite these advancements, barriers and discrimination still exist, reflecting a reluctance to fully embrace our differences and hindering the rights of disabled people.

There are two primary models of disability: the social model and the medical model. Hersh & Johnson (2008, pp. 2-3) differentiate between the two. The social model emphasizes the physical and social barriers faced by disabled individuals, framing the limitations as societal issues that undermine the rights and equality of disabled people.

In contrast, the medical model is based on the International Classification of Impairment, Disability, and Handicap (ICIDH) developed by the World Health Organization (WHO) in 1980. The WHO defines impairment as any loss or abnormality of psychological, physical, or anatomical structure or function, which may prevent a person from performing activities within the normal range. A handicap is identified when an individual with a disability is unable to fulfil their roles in society (World Health Organization, 1980, cited in Hersh & Johnson, 2008, pp. 2-3).

3.3 Assistive Technology and Digitalization

Assistive technology encompasses both software and hardware innovations that significantly enhance the lives of individuals with disabilities. Disabilities can arise from various human limitations, necessitating assistance, such as hearing impairments, visual impairments, deafness, and mobility challenges. Many of these disabilities result from natural occurrences, including aging and illness. (Accessibility Handbook 2023, p. 15)

The concept of assistive technology, within the framework of the social model of disability, aims to bridge the gap between the choices and access available to disabled individuals and the societal infrastructure that shapes these opportunities. This means addressing the limitations imposed by existing social structures and enhancing what disabled individuals can achieve. Assistive technology includes equipment, devices, and systems designed to overcome the social and infrastructural barriers that restrict the participation of disabled individuals in all aspects of society (Hersh & Johnson, 2008, p. 4).

Digitalization serves as a transformative intervention that enhances human capabilities and productivity by facilitating interconnected and transactional activities. It strengthens and supports development across various sectors, including businesses, market expansions (both online and offline), product and service development, and access to services. (Hersh & Johnson, 2008, p. 423-424).

According to Hurixdigital (2023), digital accessibility involves designing products and services in a way that ensures they are usable and accessible to everyone, regardless of their physical or intellectual abilities. The European Accessibility Act 2025 highlights various aspects of accessibility, encompassing both digital and physical dimensions, including digital accessibility, assistive technologies, electronic communication, audiovisual media accessibility, and banking accessibility.

4 Tourism

Defining tourism has posed a challenge for researchers and authors alike. In examining literature from the late 1980s and early 1990s, it becomes evident that a universal definition of tourism remained elusive. There was considerable debate about whether tourism could even be classified as an industry, complicating efforts to establish a universally accepted definition. Despite the variety of definitions, most share common elements: tourism is primarily an activity involving travel for leisure or business over a specified period. Additional aspects, such as culture, nature, spirituality, and recreation, have emerged in definitions, reflecting the expanding array of destinations and motivations for travel. (Pender & Sharpley 2004, pp. 30-31)

In their book, Mill & Morrison (1998), as cited by Pender & Sharpley (2004, pp. 30-31), argue that describing tourism as an industry is complex due to the interplay of competition and complementarity among tourism businesses. They define tourism as an activity in which individuals cross international borders for leisure or business, staying at least 24 hours but less than one year.

The World Tourism Organization (WTO) contributed to resolving this debate in 1991 by establishing a standard definition at an international conference on travel and tourism statistics in Ottawa, Canada. This definition, still in use today, states: "The activities of a person outside his or her usual environment for less than a specified period and whose main purpose of travel is other than the exercise of an activity remunerated from the place visited" (Chadwick, 1994, p. 66, as cited in Pender & Sharpley, 2004, pp. 30-31).

In conclusion, according to France (1994, p. 3, as cited in Pender & Sharpley, 2004, p. 5), a visitor is defined as someone traveling away from home for at least 24 hours. A tourist is typically viewed as someone who engages in activities different from their daily routine during their travels, with no strict maximum time limit, though they are usually away for a short duration.

4.1 Tourism in Finland

Finland has emerged as one of the fastest-growing tourism destinations in the Nordic region in recent years, positioning itself as a resilient competitor in the Nordic tourism market. This growth is attributed to various strategic investments aimed at enhancing its profile as a high-quality destination. These investments focus on developing infrastructure, sustainability, digital transformation, and accessibility across various sectors, including accommodations, railways, airports, hotels, and restaurants. (The Ministry of Economic Affairs and Employment of Finland public subsidies for developing tourism 2020)

According to the Ministry of Economic Affairs and Employment of Finland (2022), the tourism sector is among the country's fastest-growing industries, gaining significant recognition as a vital profession that contributes to national development and employment.

As the world increasingly embraces technology and development, travellers seek comfort, relaxation, and an escape from busy lifestyles. Finland stands out by offering unique experiences that contribute to its rapid tourism growth. Visit Finland (2024) emphasizes that the country provides distinctive experiences, setting it apart from other destinations, even within the Nordic region. Each area in Finland boasts its own unique attributes, catering to a variety of tourist interests. Regions such as Lapland, the Coast and Archipelago, Lakeland, and the Helsinki Region all offer endless activities throughout the year.

Gillies from the Nordic Visitor Blog (2024) reinforces Finland's uniqueness as a tourism destination compared to its Nordic neighbours, including Iceland, Norway, Denmark, and Sweden. The blog analyses the diverse contributions each of these nations brings to the regional tourism industry, noting that Finland and Sweden are recognized as among the most sustainable travel destinations globally. Both countries are celebrated for their eco-friendly practices, complemented by rich cul-

tures and adventures. Additionally, the blog highlights that approximately 80% of Finland is covered in forests, making it an appealing destination for travellers seeking fresh air and pristine nature, along with some of the cleanest water in the world.

4.2 Accessibility in Finland's tourism strategy

The recent development of tourism in Finland is guided by the national tourism strategy for 2022-2028, as outlined by the Ministry of Economic Affairs and Employment of Finland (2022). This strategy, titled "Achieving More Together: Sustainable Growth and Renewal in Finnish Tourism," establishes a foundation for strategic targets aimed at enhancing national tourism through 2028. The development strategy prioritizes four key areas: supporting sustainable development, responding to digital transformation, improving accessibility, and ensuring an operating environment that fosters competitiveness. By focusing on these priorities, Finland aims to strengthen its tourism sector while promoting inclusivity and innovation.

Accessibility in Finland tourism

Accessibility in Finland's tourism industry is a crucial issue, and it has become a key focus of national strategies leading up to 2028. As discussed earlier, accessibility and digital technological development are fundamental principles of Finland's tourism strategy. Notably, the topic of this thesis aligns well with the national tourism strategy, even though we were unaware of this connection prior to our findings.

Website accessibility, particularly for online services, is one of the fastest-growing areas of focus in Finland. Although significant progress has been made, there is still a long way to go in ensuring that web development and information are accessible and usable by everyone. Many tourism destinations, businesses, and organizations in Finland are actively working to improve their websites for all users. (Regional State Administrative Agency, for Southern Finland 2023)

The Ministry of Economic Affairs and Employment of Finland (2020) emphasizes the importance of website accessibility by promoting the establishment of accessibility statements. These statements provide users with information about the available resources and highlight any potential

shortcomings they may encounter on the website. This approach serves as a good practice and sets an example for other associations and businesses.

The Regional State Administrative Agency for Southern Finland's Accessibility Monitoring is responsible for supporting and monitoring accessibility requirements in Finland. The agency has noted that over a million people in Finland require digital accessible services. They have outlined several considerations for designing and implementing websites and mobile applications, including factors affecting individuals with visual impairments, intellectual disabilities, learning difficulties, mental health challenges, and those with poor proficiency in Finnish. (Regional State Administrative Agency, for Southern Finland 2023)

Finnish law, particularly the Non-discrimination Act, in collaboration with the EU Accessibility Act, mandates that all businesses and public service providers develop their websites to meet European standards, ensuring equal access for all users (Laws and Standards, 2024). Finland's infrastructure is considered one of the best in Europe and the world.

According to FLANDERS Investment & Trade Research (2017), Finland covers an area of 338,424 square kilometres and has a population of approximately 5.5 million. The information highlights both strengths and weaknesses in various areas of Finland's infrastructure, including accommodations, airports, harbours, roads, railroads, and sewage systems. There is a high demand for housing in urban areas, particularly in cities like Tampere, Helsinki, and Turku, due to rapid rural-to-urban migration. This has put pressure on infrastructure and limited available land for new housing, especially in Helsinki.

Regarding road accessibility, Finland has approximately 105,000 kilometres of roads, 350,000 kilometres of privately owned roads, and about 6,000 kilometres of tracks. The country also boasts a comprehensive network of ports and airports, with 30 ports (20 for cargo and 10 for international passenger connections) and 24 airports (4 international and 20 national).

In conclusion, Helsinki Airport, one of Finland's four international airports, is recognized as one of the best in Europe. Opened in 2013, it can serve up to 30 million passengers annually. Its one-roof concept, which consolidates all services and facilities under one roof, enhances accessibility for

travellers and reduces time consumption (Funaria's investment: Helsinki Airport Development Programme 2013-2023). The successful infrastructure across Finland has facilitated movement and accessibility for all types of travellers, positively impacting tourism by providing easier access to destinations and accommodations throughout the country.

4.3 Jyväskylä as a tourism Destination

Jyväskylä, a sizable city located in the heart of Finland, is known as the "Lake City" and boasts approximately 145,000 inhabitants. It offers high-quality services and sustainable living standards, surrounded by nature and regional villages. Renowned for its educational institutions and sports culture, Jyväskylä is often referred to as the "City of Sport" and the "City of Light."

As one of Finland's most recreational cities, Jyväskylä attracts a diverse student population from around the globe. The city council promotes a wide variety of sports for all age groups, emphasizing inclusivity and opportunity. In addition to sports, cultural activities are actively supported and promoted by both the city and local universities for all residents (City of Jyväskylä, 2021, "Jyväskylä on the Move," para 2). Jyväskylä is also recognized as one of the fastest-growing cities in Finland, particularly regarding accessibility and improvements in living standards for its residents.

The City of Jyväskylä (2024) highlights its commitment to accessibility in construction policies and strategies. Improving the quality of life and making everyday activities safer and easier for all residents is a top priority. The city is focused on promoting independent living for individuals with disabilities and limitations, ensuring barrier-free access to residential buildings and public services.

Collaboration with the Housing Finance and Development Centre of Finland (ARA) has led to initiatives like lift subsidies. These subsidies are granted for installing new lifts in apartment buildings that lack them, covering up to 35% of approved construction costs (City of Jyväskylä, 2024, "Lift and Accessibility Subsidy from ARA," para 2). This accessibility support aims to address and solve mobility challenges, facilitating access to residential buildings and other essential spaces for individuals with mobility issues.

Visitor Statistics and Tourism Insights in Jyväskylä

According to a member of Visit Jyväskylä, the region attracts approximately 3 million visitors annually, with over 50% being domestic and day travellers. This statistic underscores the significance of local tourism in the area.

Accommodation and Travel Statistics

Recent data from Central Finland's accommodation and travel statistics for 2024 reveals that a total of 2.3 million bed nights were recorded nationwide. Of these, domestic visitors accounted for 1.6 million nights, reflecting a slight decrease of 3.4%, while international visitors contributed 669,000 nights, marking an increase of 10.5%. Central Finland holds a market share of 4.4% of the total recorded national bed nights, with a breakdown of 5.3% for domestic visitors and 2.0% for foreign visitors. (Visitory 2024, Market share section).

These statistics highlight that domestic tourism is the cornerstone of tourism development in Jyväskylä and, more broadly, in Finland and the Nordic countries. The predominance of domestic travellers reinforces the need for hotels and tourism services to cater to local preferences and accessibility needs, as these demographic forms a significant part of the market.

The data from Visit Jyväskylä and the Central Finland accommodation statistics confirm that enhancing accessibility in the tourism sector is essential not only for meeting legal requirements but also for attracting and accommodating domestic visitors. This focus on inclusivity can significantly contribute to the overall growth and sustainability of tourism in the region.

5 Economic impact of tourism in Finland

The economic impact of tourism can be understood as the sector's contribution to Finland's national economy. According to the Ministry of Economic Affairs and Employment of Finland (2022), the tourism sector plays a significant role in national development, particularly in the context of the coronavirus pandemic and its aftermath.

Before the pandemic, the tourism industry accounted for approximately 2.7% of Finland's GDP. However, this figure dropped to 1.4% in 2020 due to pandemic-related restrictions. In 2021, signs

of recovery emerged, with the tourism industry rebounding to 1.6% of GDP as the situation stabilized. Furthermore, the total tourism demand in 2021 reached EUR 11.5 billion, reflecting an increase of EUR 1.3 billion (13%) compared to 2020, although it still represented a decrease of EUR 0.8 billion compared to pre-pandemic levels in 2019. (The Ministry of Economic Affairs and Employment of Finland 2022)

5.1 International tourism

The Ministry of Economic Affairs and Employment of Finland (2024) provides concrete data illustrating how the tourism industry positively impacted the national economy from 2018 to 2019. Prior to the pandemic, foreign visits to Finland experienced a robust annual demand increase of 8%, while domestic tourism grew by 3%. However, the crisis significantly affected these growth rates. Signs of recovery began to emerge in 2022, with the Ministry highlighting that Finland's tourism sector is rebounding from the pandemic's effects. The demand for foreign visitors surged, estimated at EUR 3.4 billion—an increase of EUR 2.2 billion (+160%), which accounted for 23% of total tourism demand. Furthermore, tourism growth continued in 2023, with foreign demand rising to EUR 4.5 billion, approaching pre-pandemic levels seen in 2019. (The Ministry of Economic Affairs and Employment of Finland 2024).

5.2 Domestic tourism

Statistics Finland (2024) defines domestic tourism as the activity undertaken by nationals or residents who travel outside their residential environment to visit various destinations within their country for leisure, business, or other purposes. According to the Ministry of Economic Affairs and Employment of Finland (2023), the tourism sector has shown growth post-pandemic. Domestic tourism, which has historically accounted for a significant share of Finnish tourism activities, represented 55% of total tourism demand and plays a crucial role in sustaining tourism services year-round. In 2022, domestic tourism accounted for 65% of total tourism demand in Finland, reflecting a growth of EUR 0.2 billion (+2%), an improvement compared to previous years. Growth continued in 2023, with domestic demand increasing by 11%, although this was slightly lower than pre-pandemic levels. Furthermore, the Ministry underscores that domestic tourism was vital in all Nordic

countries during the COVID-19 pandemic, sustaining tourism businesses and services when international tourism faced severe restrictions (The Ministry of Economic Affairs and Employment of Finland 2023).

The research project "Exploring Domestic Tourism in the Nordics" (2023) examined the value of domestic tourism across Nordic countries and autonomous areas during the pandemic. It highlighted that domestic tourism is expected to maintain a significant share in Nordic tourism in the future. The findings revealed that the pandemic restrictions showcased the potential of domestic tourism while limiting international travel. Before the pandemic, more than half of overnight stays in hotels across Denmark, Finland, Iceland, and Sweden were attributed to domestic tourists, with some Nordic countries reporting up to 90%. Following the relaxation of COVID-19 restrictions, it became clear that inbound tourism was slow to recover, while domestic tourism served as a life-line for many businesses, helping them to regain stability. (The Nordic Council of Ministers 2023).

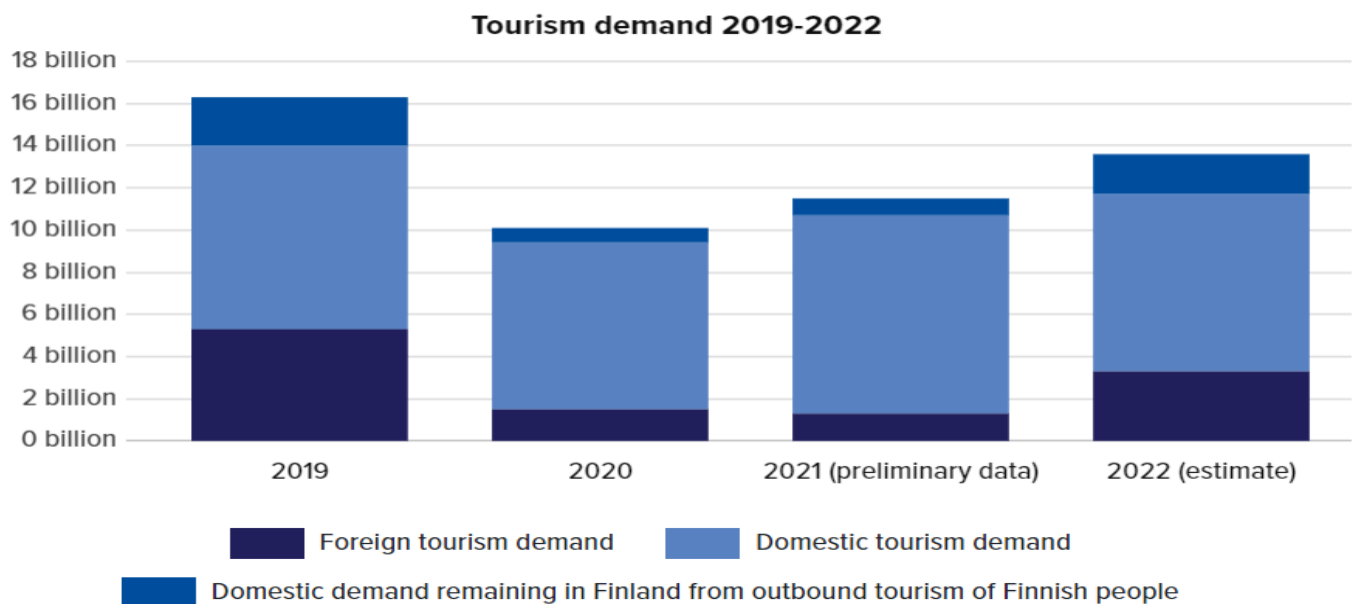


Figure 1(The Ministry of Economic Affairs and Employment of Finland 2022 statistic)

5.3 Employment in tourism

Employment can be defined in various ways, with different considerations highlighted by various authors. According to Susanne Marie Bruyere and Linda Barrington (2012, p. 7), it can be categorized into two main types: part-time work, which includes anyone who worked at least 52 total hours in a year—equivalent to working one hour a week or just one intense 52-hour workweek—and full-time year-round work, encompassing those who work at least 35 hours a week for 50 or more weeks annually. This strict definition limits the number of workers classified as employees. In Finland's tourism industry, both categories are represented, with part-time, fixed-term seasonal work, shift work, and temporary agency work being prevalent.

The Ministry of Economic Affairs and Employment of Finland (2021) estimated that prior to the pandemic, the tourism industry accounted for 5.9% of total employment in Finland, translating to approximately 154,000 people. There was also an annual increase of around 6,000 employees before the COVID-19 pandemic. However, tourism data indicated a significant impact from the pandemic, with an approximate decrease of 20,700 employees in 2021 compared to 2019. The number of hours worked also fell by 17%, equating to a loss of 43 million hours relative to pre-pandemic levels.

The tourism data also highlights major regions with significant tourism employment in Finland. In 2021, the capital region accounted for over one-third of total employment in the tourism sector. Other regions included Åland at 17.6%, Lapland at 7.7%, and South Karelia, Kainuu, Pirkanmaa, Uusimaa, and Southwest Finland at 5.1% each.

According to the Ministry of Economic Affairs and Employment of Finland (2024), employment in the tourism sector increased by 10% in 2022, adding approximately 12,500 jobs. However, this figure still represents a 9% shortfall in demand and a 9% decrease in employment (14,000 fewer jobs) compared to 2019.

5.4 Hotels in Jyväskylä

Though covid 19 has declined and affect tourism business not only in Jyväskylä but all over the world. Visit Jyväskylä as an association, has been paramount stakeholder for tourism activities and

development in central Finland and Jyväskylä city, they play crucial roles in Jyväskylä tourism activities by marketing the city and connecting with other tourism bureaus all around Europe. VisitJyväskylä Region (2022). Demonstrated their concern and commitment to promote web accessibility on their website, to ensure that digital access is granted and possible reaching by many as much as possible. They wish their audience with access right information about Jyväskylä as a destination and promote equal access to information for everyone. The city considers and listed accessibility and equality in their strategics planning as an important issue and in support of national strategy and EU accessibility act 2025 that need to be implemented in to all our tourism business and activities in the city. (Jyväskylä city strategy 2022-2025).

In Jyväskylä, approximately nine well-known hotels serve as key competitors in the accommodation sector. These include:

1. Original Sokos Hotel
2. Solo Sokos Hotel
3. Hotel Verso
4. Boutique Hotel Yöpuu
5. Hotel Alba
6. Scandic Jyväskylä Station
7. GreenStar Hotel
8. Scandic Laajavuori
9. Scandic Jyväskylä City

Among these, Sokos Hotels and Scandic Hotels are part of larger hotel chains, while the others are independently owned by individuals and families. Tourism has been a rapidly developing industry in Finland, and Jyväskylä has emerged as an active and attractive tourism destination, particularly for recreational activities. Since 2012, the city has made significant strides in enhancing its tourism sector, focusing on increased tourism activities, economic growth, and job creation. The city's strategic plans have prioritized education, the establishment of hotels and restaurants, and the hosting of conferences and leisure activities, contributing to overall economic development.

Although the COVID-19 pandemic adversely affected tourism businesses in Jyväskylä and globally, Visit Jyväskylä has played a crucial role as a key stakeholder in promoting tourism activities and development in Central Finland. This association is instrumental in marketing the city and fostering connections with other tourism bureaus across Europe.

Visit Jyväskylä (2022) has demonstrated its commitment to promoting web accessibility on its website, ensuring that digital access is available to a broad audience. The organization aims to provide essential information about Jyväskylä as a destination while promoting equal access to information for everyone. Accessibility and equality are integral components of the city's strategic planning, aligning with national strategies and the EU Accessibility Act 2025 to be implemented across all tourism businesses and activities in the city (Jyväskylä City Strategy 2022-2025).

6 Research Results

This thesis aims to provide a comprehensive analysis of inequality, availability, accessibility, and usability of services for disabled customers in hotels in Jyväskylä. It specifically focuses on identifying the technological tools available to bridge the gap in inequality and evaluating how these tools improve access for disabled individuals in comparison to other users.

The goal is to answer key research questions while highlighting the current state of the hotel industry in terms of improvements, achievements, and limitations regarding accessibility. Given the dynamic nature of the tourism industry, which continually evolves in response to generational and societal developments, it is crucial for businesses to implement and enhance their practices in alignment with contemporary values such as technology, accessibility, sustainability, and social responsibility.

6.1 Results of Interviews and Observations

The analysis of interviews and observations revealed several key themes related to accessibility in the hospitality industry. These themes included Accessibility Standards, Awareness of Assistive Technologies, Customer Experience, Challenges and Barriers, and Future Improvements.

Accessibility Standards

Participants expressed varying levels of adherence to established accessibility standards. While some managers reported compliance, others acknowledged gaps in their practices.

Quote: “We strive to meet the EU accessibility recommendations, but I know we still have room for improvement.” – Hotel Verso. Observations confirmed that while certain areas, such as entrances and restrooms, were accessible, others, like parking areas, posed challenges.

Awareness of Assistive Technologies

Awareness of assistive technologies was limited among some hotel managers. While a few had integrated assistive devices into their services, many were unaware of available tools that could enhance guest experiences.

Quote: “we’ve had some technological tools that help, and we are working to increase more and ensure the work effectively to enhance the customer experience.” –, Scadic Laajavouris Hotel. Participants noted that increased training on assistive technologies could greatly benefit staff and improve overall accessibility.

Customer Experience

Participants shared insights into the customer experience, highlighting both positive and negative aspects. Many disabled customers reported appreciation for staff willingness to assist, but there were also mentions of frustrations related to accessibility barriers.

Quote: “I have to get off on my wheelchair for my mother to push it while I crowded to get in the lobby due to the absent of accessible tools at the entrance.” – Disabled Customer. Overall, customer experiences varied significantly based on the specific hotel and its accessibility features.

Challenges and Barriers

Numerous challenges and barriers were identified by both hotel managers and customers. Managers mentioned a lack of resources and training as significant obstacles to improving accessibility.

Quote: “We want to do better, but sometimes the nature of hierarchy of chain hotels affect the and slow the certain improvement.” Sokos hotel Paviljonki.

Customers pointed out that inadequate signage and poorly designed layouts often hindered their experience, impacting their overall satisfaction.

Quote: “It was hard to find our way around sometime. Better signage would really help.” – Older couple.

Future Improvements

Participants expressed a strong desire for future improvements in accessibility practices. suggested incorporation of new technologies to enhance guest experiences.

Quote: “we cannot change the nature of our accommodation, but I believe we could come up with ideas to include disable customers in our restaurant especially in summer seasons.” – Hotel Yöpuu. Both managers and customers highlighted the importance of ongoing dialogue about accessibility needs, suggesting that regular feedback could drive meaningful changes.

The interviews and observations provided valuable insights into the current state of accessibility in the hospitality industry. While there are notable efforts to comply with accessibility standards, significant challenges and gaps remain. By prioritizing awareness of assistive technologies, enhancing

customer experiences, and addressing barriers, hotels can better meet the needs of all guests. Future improvements based on participant feedback will be crucial in fostering a more inclusive environment.

6.2 Hotel verso and Yöpuu

Hotel Verso, centrally located in Jyväskylä, offers convenient access to various transport connections, including train stations, buses, and taxis. The hotel features a dynamic service environment, providing delightful seasonal decorations, particularly during Christmas. Its main entrance is situated on a pedestrian street, directly opposite the shopping centre, allowing guests to immerse themselves in the local culture, cuisine, and business opportunities.

The hotel lobby, characterized by its elegantly designed reception desk, is accessible to all guests and includes a beverage bar. Hotel Verso boasts 120 rooms, including two newly renovated accessible rooms tailored for guests with disabilities. These rooms are thoughtfully designed with features such as adjustable beds, specially positioned furniture, accessible bathtubs, and shower chairs to ensure comfort for all users. Additionally, the hotel offers an accessible sauna, as well as meeting and dining spaces that are easily reachable for everyone.

However, Hotel Verso faces challenges in certain areas of accessibility. There is a notable lack of assistive technology, and the online services provide limited information specifically for disabled customers. For instance, individuals with visual impairments encounter barriers when navigating the hotel's website, which primarily caters to standard users. Furthermore, the hotel does not offer essential materials, such as wheelchairs for emergency situations. This assessment is based on research interviews and observations conducted in 2024.



(Accessible supportive tools Images from hotel Verso, pictures taking by the author, 2024)

Hotel Yöpuu

Hotel Yöpuu is a charming boutique hotel that combines elegant accommodations with a renowned restaurant, Pöllöwaari, which is a local favourite. This four-star hotel features 26 rooms, including luxurious suites, twin, and single rooms. As a locally owned establishment, Yöpuu has garnered loyal support from the residents of Jyväskylä and Central Finland, contributing to its reputation and success in a competitive market. Situated in the city centre, Hotel Yöpuu offers convenient access to public transportation. However, the building is a protected structure with significant limitations in terms of accessibility for disabled guests. The accommodations are located on the second and third floors, and the absence of an elevator, combined with narrow hallways, makes it nearly impossible for wheelchair users and those with mobility challenges to access these rooms. (Hotelliyopuu, 2024)

Despite these accessibility issues, many older patrons continue to frequent the hotel and restaurant, drawn by the exquisite cuisine and high-quality services. Hotel Yöpuu clearly states in its accessibility information that it lacks support and options for guests with special needs, suggesting alternatives like Hotel Verso instead. Unfortunately, this means that individuals with disabilities are unable to enjoy the hotel's offerings, despite their desire to experience the fine dining and hospitality available. (Hotelliyopuu, 2024)

This description is based on research interviews and observations conducted in 2024.



(pictures taking by the author, 2024)

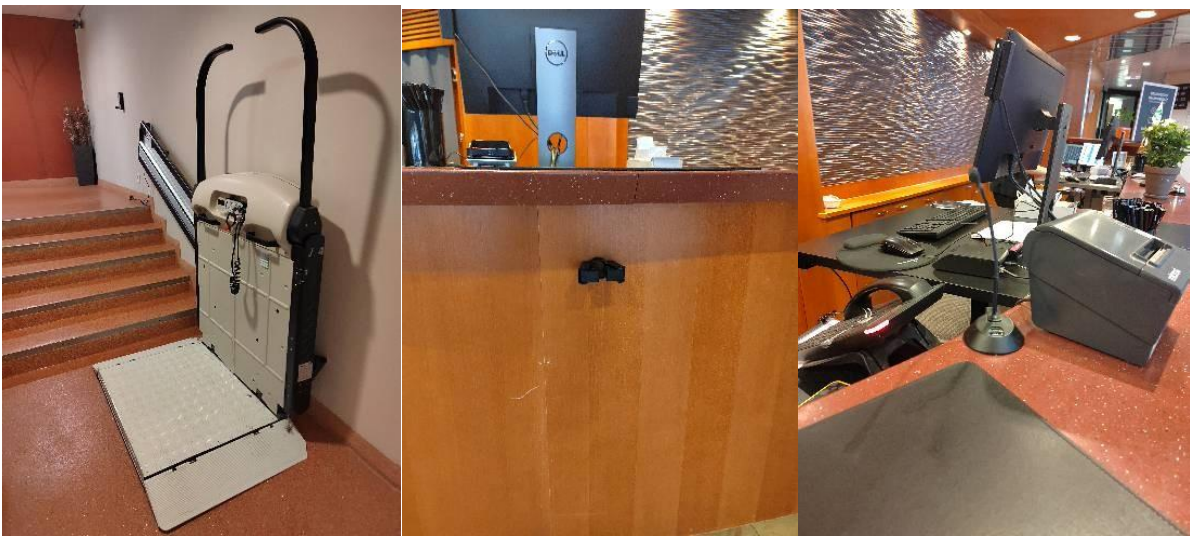
6.3 Scandic Laajavuori

Scandic Laajavuori is strategically located near the renowned Laajavuori ski hill in Jyväskylä. As part of the largest hotel chain in Scandinavia, it is one of three Scandic hotels in the city, boasting nearly 200 rooms and a strong reservation capacity. Opened in 1969, the hotel is situated in a picturesque, hilly area outside the city centre, surrounded by natural landscapes and offering stunning views of Tuomiojärvi and nearby forests. The hotel is easily accessible from the city centre via public transport or personal rides. Scandic Laajavuori features convenient parking options, including accessible spaces, and the entrance is just a few steps from the parking area. The spacious lobby facilitates smooth movement for all guests, and the reception area includes modern technological tools designed to assist communication with deaf customers. However, the height of the reception desk currently does not meet accessibility standards, though the manager has indicated that this will be addressed in the next renovation. (Scandic Laajavuori hotel 2024)

In terms of physical accessibility, Scandic Laajavuori provides a range of supportive features, including wheelchairs available for both external and internal use, as well as access to the spa, sauna, shower, and swimming pool. The hotel is equipped with elevators that ensure access to

rooms, the restaurant, spa, sauna, bowling alley, and gym. However, due to the building's older structure, there are no specially customized accessible rooms or bathrooms. While the hotel's website lacks detailed accessible information, the staff are welcoming to all guests, encouraging those with mobility challenges to visit. The manager emphasized that upcoming renovations would address many of the current accessibility gaps, ensuring a more inclusive experience for all guests. (Scandic Laajavuori hotel 2024)

This description is based on insights gathered during research in 2024.



Accessible supportive tools Images from scandic hotel Laajavuori. (pictures taking by the author, 2024)

6.4 Sokos hotel paviljonki

Sokos Hotel Paviljonki, one of the newest additions to Jyväskylä's accommodation scene, opened its doors in 2012 and features approximately 170 rooms. It is the second establishment of the Sokos hotel chain in the city, following the original Sokos Hotel Alexandra. Both hotels significantly contribute to the local hospitality sector, benefiting from their prime locations near the train station and the conference center, Paviljonki, which provides a competitive edge. The research conducted through observation and interviews aimed to assess the accessibility standards of Sokos Hotel Paviljonki. Located in an open space area across a bridge, the hotel's accessibility is enhanced by this connection, allowing easy access to both the hotel and the conference centre. (solo sokos Hotel paviljonki 2024)

Upon entering Sokos Hotel Paviljonki, guests are welcomed by a wide and open lobby, designed with a focus on nature and sustainability. The spacious bar and dining areas are easily accessible, and the elevator situated just after the reception desk is large enough to accommodate all guests comfortably. The hotel rooms offer breathtaking views of the surrounding nature, specifically Lake Jyväsjärvi, adding a unique attraction for visitors. However, the hotel currently lacks certain technological aids and specialized rooms for disabled guests. According to the manager, accessibility was not a priority during the hotel's establishment, leading to deficiencies in website content, the absence of dedicated accessible rooms, and a lack of supportive materials. Nonetheless, there are four spacious rooms with bathrooms suitable for disabled customers, and the hotel provides access to an accessible sauna. (solo sokos Hotel paviljonki 2024)

The manager expressed concern about these shortcomings but mentioned that renovations are planned to improve accessibility, particularly following the updates being made at Sokos Hotel Alexandra, which will include multiple new accessible rooms. It was noted that many disabled guests are typically accompanied by a relative or helper to navigate the facilities more easily. This result is based on interview.

This analysis is based on insights gathered during research in 2024.



Accessible supportive tools Images from sokos hotel vaviljonki it was busy to access enough pictures pictures taking by the manager, 2024)

6.5 Wheelchair user and older couples

A young wheelchair user and entrepreneur specializing in enhancing accessibility for businesses, particularly hotels. The participant has worked with numerous hotels across Finland to improve their understanding of wheelchair user needs. The participant shares the memories and experiences and highlights the specific tool that is lacking in many hotels.

Lack of Basic Tools, many hotels lack fundamental accessibility features. The participant recounted an experience where they had to crawl from the entrance to the lobby due to inadequate provisions, despite the hotel claiming to offer accessibility support on their website. **Awareness Gaps**, the participant emphasized that the lack of awareness about accessibility standards is prevalent not just in Jyväskylä but across the country. **Legislative Shortcomings**, National legislation has not been proactive in promoting accessibility, resulting in a lack of motivation for many businesses to implement necessary changes. **Mindset Issues**, there is a prevailing belief among many disabled individuals that they cannot achieve the same quality of life as others, which hinders progress in accessibility awareness and legislative improvements.

Older Couple's Perspective

Travel Background, this couple has travelled together for many years and has witnessed significant changes in hotel services over time. **Historical Context**, they noted that accessibility was not formally recognized in the past; instead, it was an inherent aspect of good hospitality characterized by compassion and helpfulness. **Lack of Assistance**, they expressed frustration over the absence of support from hotel staff and fellow travellers, especially when struggling with luggage. **Signage Issues**, Aging has affected their eyesight, making it difficult to read outdated and small signs in many hotels. **Desire for Consideration**, while they don't seek equality due to the nature of aging, they wish for more compassion and consideration in their interactions with hotel staff and facilities.

The insights from both participants reveal significant gaps in hotel accessibility in Jyväskylä. The young entrepreneur's experiences highlight the need for increased awareness and basic accessibility tools, while the older couple's reflections emphasize the importance of compassion and support in hospitality. Together, these perspectives underscore the necessity for hotels to adopt a

more inclusive approach, not only through physical adaptations but also by fostering a culture of understanding and assistance for all guests.

Basic Accessibility Standards in Jyväskylä Hotels

The table below summarizes the basic accessibility standards and available tools in selected hotels in Jyväskylä, categorized as Positive, Negative, and Neutral. This evaluation provides a clear picture of how well each hotel accommodates accessibility needs.

Positive: This indicates that the hotel meets or exceeds accessibility standards. It may have features like accessible entrances, well-designed websites, assistive technologies, and staff trained to assist guests with disabilities.

Negative: This suggests that the hotel fails to meet basic accessibility standards. This could include issues such as lack of accessible rooms, poor website accessibility, or absence of assistive devices, making it difficult for individuals with disabilities to access services or navigate the hotel.

Neutral: This category likely means that the hotel has some accessibility features, but they are either not fully implemented or may only partially meet standards. For example, a hotel might have an accessible entrance but lack other important features like accessible restrooms or communication devices.

This evaluation can help identify which hotels are doing well in accommodating guests with disabilities and which ones may need to improve their facilities and services. It serves as a useful tool for guests seeking accessible accommodations.

Accessibility Standard and Available Tools	Hotel Verso	Scandic Laajavouri	Sokos Hotels Paviljonki	Hotel Yöpuu
Access to parking space	Neutral	Positive	Positive	Positive
Accessibility signs and designs	Neutral	Neutral	Neutral	Neutral
Easy access to main entrance	Positive	Positive	Positive	Positive
Height of reception desk	Positive	Negative	Positive	Negative
Access to elevators	Positive	Positive	Positive	Negative
Decoration in accessible rooms	Positive	Neutral	Neutral	Negative
Comfort of accessible beds	Positive	Neutral	Neutral	Negative
Accessible bathrooms or toilets	Positive	Negative	Negative	Negative
Easy access to restaurants and bars	Positive	Positive	Positive	Neutral
Easy access to the spa or saunas	Positive	Positive	Positive	Negative

- Table 2: The result of Accessibility Standard in Jyväskylä Hotels

Overall Accessibility: The results for basic accessibility standards indicate varied levels of compliance among the hotels: The data for this result was collected through observation when the

research accompanies by the managers to witness the available accessible tools in hotels facilities.

- Hotel Verso: 8/10 Positive
- Scandic Laajavuori: 5/10 Positive
- Sokos Hotels Paviljonki: 6/10 Positive
- Hotel Yöpuu: 2/10 Negative

Access to Parking: All hotels, except Hotel Verso, provide good access to parking spaces.

Main Entrance Access: All hotels have easy access to the main entrance, demonstrating a strong commitment to accessibility.

Reception Desk Height: Hotel Verso and Sokos Hotels Paviljonki meet accessibility standards, while the other hotels do not.

Elevator Access: Three out of four hotels have accessible elevators, with only Hotel Yöpuu lacking this feature.

Accessible Rooms and Facilities: Hotel Verso excels in providing accessible rooms and comfortable beds, while Hotel Yöpuu shows significant gaps in this area.

Spa and Restaurant Access: While three hotels offer easy access to restaurants and spa facilities, Hotel Yöpuu falls short in providing adequate access to its spa services.

The results highlight areas where Jyväskylä hotels are performing well and where improvements are necessary. Enhanced accessibility not only supports compliance with legal standards but also enriches the experience for all guests, fostering a more inclusive environment in the hospitality

sector. Addressing the identified gaps, especially in Hotel Yöpuu, can significantly improve overall accessibility and customer satisfaction.

Availability of Assistive Technology in Jyväskylä Hotels

The table below summarizes the availability of assistive technology across selected hotels in Jyväskylä. The results indicate a concerning lack of accessible features and technology, highlighting areas for improvement. Overall, these assessments involve a mix of automated tools, expert reviews, user testing, and site inspections to comprehensively gauge the accessibility and availability of assistive technologies in the hotels.

Assistive Technology	Hotel Verso	Scandic Laajavouri	Sokos Hotels Pavilionki	Hotel Yöpuu
Accessibility content on websites	Positive	Negative	Negative	Negative
Website accessible developments	Negative	Negative	Negative	Negative
Screen readers	Negative	Negative	Negative	Negative
Screen magnifiers	Negative	Negative	Negative	Negative
Increases colour contrast	Negative	Negative	Negative	Negative
Voice recognition software	Negative	Negative	Negative	Negative
Wheelchairs	Negative	Positive	Negative	Negative

Assistive Technology	Hotel Verso	Scandic Laajavouri	Sokos Hotels Pavilionki	Hotel Yöpuu
Electronic communication devices	Neutral	Positive	Neutral	Neutral

- Table 3: the result of the availability of assistive technology in Jyväskylä hotels

Overall Availability, the total result for the availability of assistive technology in Jyväskylä hotels is largely negative, with only 2 out of 8 positive responses across the evaluated features. Website Accessibility, most hotels demonstrated negative outcomes in terms of accessibility content and website developments, indicating a critical area that requires improvement. Assistive Tools, essential assistive technologies, such as screen readers and magnifiers, were absent in all hotels. This lack severely limits accessibility for disabled customers. Physical Accessibility, while some hotels (like Scandic Laajavouri) offer wheelchair access, the overall provision of assistive technologies remains inadequate. Electronic Communication Devices, the presence of electronic communication devices showed a neutral to positive response in some hotels, suggesting potential areas for enhancement.

The findings highlight a significant need for Jyväskylä hotels to improve their accessibility features and assistive technologies. Addressing these gaps will not only enhance the experiences of disabled customers but also expand the market by attracting a more diverse clientele.

Concern and Awareness

The data collected from hotel managers and disabled customers reveals a mixed level of concern and awareness regarding accessibility in Jyväskylä's hotels. While there is a general recognition of the importance of accessibility, the commitment to implementing effective solutions varies significantly across establishments.

Most hotel managers possess a basic understanding of accessibility issues; however, deeper knowledge, particularly regarding the EU Accessibility Act 2025, is lacking. This gap suggests that many establishments have not fully engaged with current standards or best practices in accessibility. There is a notable difference in how actively hotels are addressing accessibility. Some hotels have invested resources in enhancing their facilities, while others have made minimal changes, reflecting a disparity in priorities and commitment to equality.

The research highlights a persistent sense of inequality within the hospitality sector. Many disabled customers expressed a belief that true equality in access is unattainable, which contributes to a slower pace of improvement in accessibility measures. Lack of awareness and proactive measures from both hotel management and the disabled community creates barriers to enhancing accessibility. This situation underscores the need for targeted education and outreach efforts

Overall, the findings indicate that while there is a foundational awareness of accessibility among hotel businesses in Jyväskylä, significant gaps remain in both knowledge and implementation. Addressing these gaps is crucial for closing the inequality divide and fostering a more inclusive environment for all guests. Enhanced training, awareness campaigns, and collaboration among stakeholders are essential steps toward achieving greater accessibility in the hotel sector.

Availability

Current Accessibility Standards, hotels in Jyväskylä offer basic accessibility features (e.g., accessible rooms, restrooms, elevators). However, these tools vary in effectiveness across different establishments. Lack of Advanced Assistive Technology, many hotels have not adopted modern assistive technologies (like screen readers or voice recognition) on their websites. This limits access for disabled customers and reinforces inequality. Bridging the Gap with Assistive Technology, assistive technology plays a critical role in enhancing accessibility. However, its underutilization reflects a broader issue of awareness and understanding of the needs of disabled customers.

Researchers suggest that financial constraints are not viewed as a primary barrier to implementing advanced accessibility features, while hotel managers often question the demand for such tools, reflecting a lack of awareness about the size and needs of the disabled community. Additionally,

chain hotel managers encounter bureaucratic hurdles that impede the implementation of accessibility improvements, as necessary changes typically require top-down directives, which can further delay progress.

Need for Awareness and Training, there's a significant gap in understanding the potential market of disabled customers. Training for hotel staff and management about accessibility needs can foster a more inclusive environment. **Technology Adoption**, highlighting successful case studies of hotels that have integrated assistive technologies can provide a model for others. **Changing Perceptions**, addressing the sentiment among disabled individuals that equality is unattainable is crucial. **Marketing and outreach** can help demonstrate that hotels are making strides toward inclusivity. **Policy Advocacy**, encouraging local or national policies that promote accessibility in the hospitality industry could spur investment in assistive technologies. **Customer Feedback Loop**, establishing channels for feedback from disabled customers can provide valuable insights into their experiences and needs, guiding improvements.

Optimistic Improvement

Hope for Change, there is a growing optimism among researchers and hotel participants regarding efforts to close the accessibility gap for disabled customers. **Upcoming Renovation Projects**, many hotels are initiating renovation projects aimed at enhancing both digital and physical accessibility. This includes upgrading websites and increasing the number of accessible features such as rooms, signage, restrooms, and assistive technologies. **EU Accessibility Act**, the implementation of the EU Accessible Act is a significant driver for these changes, pushing for equal access to products and services across the board. **National Strategy for Accessibility**, complementing the EU Act, the national strategy for accessibility and technology emphasizes the need for comprehensive improvements in hospitality services.

Focus Areas for Improvement

Digital Accessibility, enhancements to websites and online content will ensure that information is readily available and usable for all customers. **Physical Accessibility**, increasing the number and quality of accessible rooms, restrooms, and facilities will make hotels more welcoming. **Assistive**

Technologies, integrating advanced technologies will provide greater independence and ease of use for disabled guests.

These developments signal a positive shift toward inclusivity in the hotel industry, driven by legislative frameworks and a commitment to better serve all customers. Continued collaboration between researchers, hotel management, and the disabled community will be essential in realizing these improvements and fostering a truly accessible hospitality environment.

7 Conclusion and Recommendations

The findings of this research represent a significant milestone for the tourism industry, particularly for hotels in Jyväskylä and Finland as a whole. This study serves as a valuable resource for future tourism managers and employees, offering insights that can help eliminate inequalities within the industry and leverage modern digital tools to expand market opportunities. While the research indicates that the accessibility gap remains considerable, it also reveals a promising outlook for the development and implementation of new physical and digital standards in hotels. These improvements can be pivotal in reducing inequality and enhancing overall customer experience. The results of this thesis can be used as a benchmark to measure future progress in accessibility within the tourism sector.

Accessibility Standards many hotels met basic accessibility criteria, but there were significant gaps in advanced features, particularly assistive technologies. Awareness and Training hotel managers often lacked comprehensive knowledge about accessibility needs and assistive technologies, impacting their ability to implement effective solutions. Customer Experiences, disabled participants reported mixed experiences, with some praising efforts made by certain hotels while expressing frustration over the lack of standardized accessibility features. Future Directions, there is a strong desire among both managers and customers for improvements in accessibility standards and technology integration. The data analysis provided valuable insights into the state of accessibility in Jyväskylä hotels. By systematically examining the experiences and perspectives of various stakeholders, the study highlights the critical areas for improvement and the potential for future advancements in making the tourism industry more inclusive. This analysis serves as a foundation for recommendations aimed at enhancing accessibility and ensuring a better experience for all customers.

Analysis of Basic Accessibility Standards in Jyväskylä Hotels

The results indicate a generally positive outlook regarding basic accessibility standards across hotels in Jyväskylä. This means that most hotels are equipped with fundamental tools and facilities to support disabled customers. However, the analysis reveals varying levels of commitment and effectiveness among different hotels in addressing accessibility challenges.

General Accessibility, most hotels have implemented basic accessibility features, which is a significant step towards inclusivity. This includes accessible entrances, restrooms, and common areas. Varying Efforts, there is a noticeable disparity in the level of effort put forth by individual hotels to enhance accessibility. Some establishments have made significant improvements and investments in their facilities, while others lag, lacking essential features. Technological Tools, this section also highlights the potential for modern assistive technologies to further improve accessibility. Many hotels have yet to integrate these technologies effectively, which could help close the gap between disabled customers and those without limitations.

The overall assessment of basic accessibility standards is encouraging, but there is room for improvement. Hotels that actively seek to enhance their facilities and adopt modern technologies will not only benefit disabled customers but also create a more inclusive environment for all guests. Future initiatives should focus on promoting best practices and encouraging all hotels to prioritize accessibility.

Connection to Research Questions

How does assistive technology contribute to bridging the accessibility gap?

The research indicates that while some assistive technologies are in place, many hotels lag in their implementation, underscoring the need for a more comprehensive digital strategy.

What challenges do hotel businesses face in enhancing digital accessibility?

The study revealed that managers often underestimate the demand for accessible services, indicating a critical area for education and advocacy. In conclusion, this discussion underscores the importance of the research findings and their implications for the tourism industry. By reflecting on

these insights, stakeholders can better understand the path forward, fostering an inclusive environment that benefits all customers.

Market Expansion, the findings highlight the potential for expanding the tourism market by better accommodating disabled customers. Inclusivity can open new customer segments, benefiting both businesses and society. The research emphasizes the need for empathy and awareness in understanding the diverse needs of all individuals, reinforcing that everyone should be considered a potential customer. Based on the research, several key recommendations emerge, validated by tourism professionals:

Three Pillars of Accessibility

Accessible Facilities, this area has received considerable attention in research, but ongoing improvements are essential. Accessible Services, more focus is needed on training for managers and employees to develop services that are genuinely accessible. This includes engaging effectively with disabled customers, seniors, and those with cognitive limitations. Accessible Documentation, enhancing the clarity and detail of accessible information is critical. This includes producing well-documented content (text, videos, images) that accurately represents accessibility features at destinations and businesses.

Training and Awareness Programs implement comprehensive training programs for staff to improve their understanding of accessibility needs and enhance service delivery for disabled customers. Inclusive Marketing Strategies develop marketing materials that reflect the commitment to accessibility, building trust and encouraging participation from disabled individuals in tourism experiences. Ongoing Research and Collaboration, encourage further studies focused on accessible services and documentation, fostering collaboration between researchers, industry professionals, and the disabled community.

By addressing these areas, the tourism industry can make significant strides toward a more inclusive and equitable environment, ultimately enriching the experiences of all customers.

This research draws on data collected from hotel managers and disabled customers in Jyväskylä. The findings are structured into sub-chapters that highlight:

Strengths: Identifying the positive aspects of accessibility features in various hotels.

Weaknesses: Highlighting areas where hotels fall short in providing adequate accessibility.

Inequality Levels: Analysing the disparities in accessibility across different hotels.

Strengths, many hotels have made significant strides in enhancing accessibility through basic features such as ramps, accessible restrooms, and well-designed common areas. Some hotels have also begun incorporating assistive technologies that facilitate better access for disabled guests.

Weaknesses, despite these strengths, there are considerable gaps in accessibility. Some hotels lack essential tools and facilities, such as appropriate signage, assistive technology, and trained staff. This inconsistency can create barriers for disabled customers.

Inequality Levels, the research indicates varying levels of commitment among hotels to improve accessibility. Some establishments actively invest in making their services inclusive, while others have minimal provisions, leading to a significant inequality in the experience of disabled guests.

The research underscores the need for continued focus on accessibility and the integration of assistive technology in Jyväskylä's hotels. Addressing the identified weaknesses and disparities will not only enhance the overall experience for disabled customers but also align with broader national goals for inclusive tourism. Future initiatives should prioritize training, technology adoption, and collaboration between hotels to create a more equitable environment for all guests.

8 Discussion

The discussion section serves as a critical reflection on the research process, synthesizing findings and linking them to the initial research questions. This phase not only evaluates the results but also interprets their significance in the broader context of accessibility in the tourism industry.

Key Findings and Their Implications

Accessibility Gap: The research confirmed that while some basic accessibility features exist in Jyväskylä hotels, significant gaps remain. This disparity underscores the need for ongoing efforts to bridge the divide between the services available to disabled customers and those offered to able-bodied individuals. **Optimism for Future Improvements:** Despite the current challenges, the upcoming renovations and the implementation of the EU Accessibility Act provide a hopeful outlook for enhanced accessibility standards. This suggests a positive trajectory toward inclusivity, indicating that the industry recognizes the importance of these changes. **Role of Assistive Technology:** The limited use of modern assistive technologies on hotel websites reflects a broader issue within the industry. Addressing this shortfall could significantly improve access to information and services for disabled customers, emphasizing the need for digital inclusivity. **Diverse Perspectives:** The differing views between researchers and hotel managers regarding financial constraints and market demand reveal a critical disconnect. This highlights the necessity for increased awareness and education about the potential customer base represented by disabled individuals.

Importance of the Findings

Market Potential, by improving accessibility, hotels can tap into a previously underserved market segment, ultimately driving business growth. **Social Responsibility:** The research illustrates the ethical imperative for the hospitality industry to adopt inclusive practices, fostering a culture of empathy and understanding. **Framework for Progress:** The identified pillars of accessibility—facilities, services, and documentation—provide a structured approach for hotels to enhance their offerings systematically.

8.1 Research process

The journey of this thesis research has been integral to the degree program, beginning from our second year. As we engaged in discussions about the research and writing process, we experienced a mix of excitement and uncertainty. Choosing a thesis topic was particularly challenging, given the wide-ranging implications of accessibility within the tourism industry—not only for disabled individuals but also considering the technological transformations affecting businesses globally. The COVID-19 pandemic underscored the urgent need for improved accessibility strategies.

The decision to focus on accessibility emerged during a course where we hosted a guest speaker with a disability. They shared insights about their daily experiences and the obstacles they face in accessing tourism-related services, such as transportation, hotels, and restaurants. The positive advancements in digital accessibility, highlighted by successful examples like Barcelona, inspired us to explore the impact of technology on accessibility in Jyväskylä's hotels.

Researching accessibility standards in Jyväskylä's hotels is vital for our community and the tourism industry. As future professionals, we have a responsibility to advocate for equal access and improved facilities. Understanding and enhancing accessibility not only aligns with our ethical obligations but also supports market expansion by welcoming all potential customers. This thesis serves as a reflection on our current standing in the pursuit of equality in the digital age. By identifying gaps and opportunities, we aim to contribute positively to the tourism landscape in our city.

Ethical integrity was a priority throughout the research process. Participants were fully informed about the ethical principles governing the use of their personal data. We addressed any potential ethical issues that might arise during interviews, ensuring sensitivity around the topics discussed. Participants were made aware of the sensitive nature of the issues, and their consent was obtained before proceeding. We ensured transparency regarding the research purpose and design, emphasizing the benefits of their contributions. Interviews were recorded with the participants' consent, and data confidentiality was strictly maintained.

The decision to mention specific hotels was based on mutual understanding and agreement with the hotel managers involved, further emphasizing our commitment to ethical research practices. This comprehensive approach not only enhanced the integrity of our research but also reinforced the importance of respectful engagement with participants, ensuring their voices were valued and heard throughout the process. The theoretical framework of this research is grounded in the principles of accessibility, inclusivity, and the role of assistive technology in enhancing the experience of disabled individuals within the tourism sector. This framework serves to contextualize the findings of the study and illustrate their relevance to existing literature and theories.

Key Theoretical Concepts

Universal Design, this principal advocates for creating environments and products that are usable by all people, regardless of age or ability. The findings of this research highlight the need for hotels

to adopt universal design principles to ensure accessibility. **Social Model of Disability:** This model shifts the focus from individual impairments to the societal barriers that hinder access. The research results illustrate how many hotels still operate under a traditional model, lacking comprehensive understanding and implementation of accessibility measures. **Assistive Technology,** the integration of assistive technology is crucial in bridging the accessibility gap. The research identifies a significant lack of technological tools in the hotels studied, underscoring the need for greater awareness and investment in this area.

Customer Experience Theory, this theory emphasizes the importance of understanding customer needs to enhance their overall experience. The research findings demonstrate that the current lack of accessibility features negatively impacts the customer experience for disabled individuals.

Accessibility Standards, the hotels displayed a mixed adherence to accessibility standards. While some hotels met basic requirements, significant gaps remain, particularly in the use of assistive technology. This reflects the challenges outlined in the social model of disability, where societal attitudes and structures limit access. **Assistive Technology,** the findings indicate that most hotels lack essential assistive technologies such as screen readers and magnifiers. This absence aligns with the need for a paradigm shift towards universal design and the integration of technology to enhance inclusivity. **Customer Experience,** the varying levels of accessibility directly influence the customer experience. Hotels with higher accessibility scores tend to provide a more positive experience for disabled customers, highlighting the importance of addressing these issues for overall satisfaction and market growth. **Managerial Awareness,** the disconnect between the perceptions of hotel managers and the actual needs of disabled customers emphasizes the need for education and training in accessibility. This gap suggests that many managers operate with limited understanding, which can be addressed through targeted awareness programs.

The theoretical framework provides a comprehensive lens through which to view the research findings. It highlights the critical need for Jyväskylä hotels to adopt more inclusive practices and integrate assistive technologies. By aligning their services with universal design principles and addressing the social model of disability, hotels can significantly enhance accessibility and improve the overall experience for all guests. This alignment is essential not only for compliance but also for fostering a more inclusive tourism industry that benefits everyone.

8.2 Reliability and Validity

In qualitative research, reliability refers to the consistency of the research tools and the process used to achieve the results. It indicates that if the study were replicated using the same methodology, it would yield similar findings. This concept is crucial for establishing trust in the research outcomes.

Validity, on the other hand, pertains to the authenticity and credibility of the data collected. It encompasses the accuracy of documentation, descriptions, and interpretations made by the researcher. Validity also reflects the honesty and openness of participants during interviews (Holloway & Wheeler, 2009).

Achievements and Challenges

Our research met certain expectations in terms of reliability and validity. We collected data directly from participants whose insights were central to our study. Conducting face-to-face interviews allowed for a rich exchange of information without intermediary communication tools, fostering a comfortable environment for discussion. Hotel managers were generally responsive to our thesis questions, and disabled participants shared their experiences, both positive and negative.

A significant hurdle was the lack of comprehensive understanding among hotel managers regarding accessibility concepts. Many displayed only surface-level knowledge, which limited the depth of our findings. This gap highlights the need for increased awareness and education on accessibility within the industry. Limited Participation: We faced difficulties in recruiting participants for our study. Although we aimed to include five to six hotel managers, not all responded to our outreach efforts despite multiple follow-ups and in-person visits. This limitation could affect the generalizability of our findings, as a more diverse range of perspectives might provide a fuller picture of the accessibility landscape in Jyväskylä's hotels.

While the research was conducted with a focus on reliability and validity, the challenges encountered underscored the need for ongoing dialogue and education about accessibility in the tourism industry. By addressing these gaps, future research can build on our findings and contribute to a more inclusive hospitality environment.

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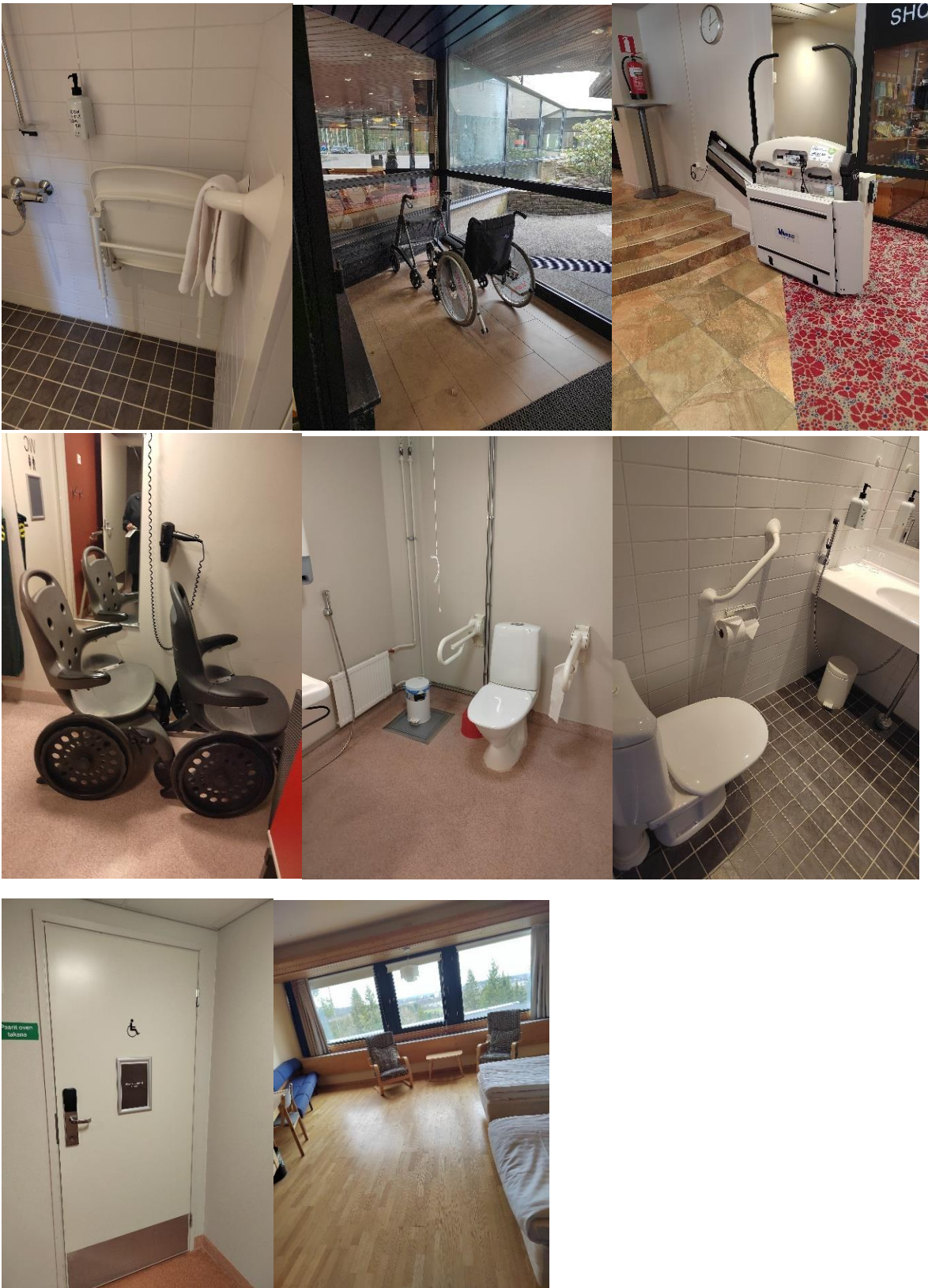
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Appendices



Appendix 1. Accessible supportive tools from scandic Hotel Lajaavouri (pictures taking by the author, 2024)



Appendix 2. Accessible supportive tools from Hotel Verso (pictures taken by the author, 2024)



Appendix 3. Accessible supportive tools from Hotel Yöpuu(pictures taking by the author, 2024