

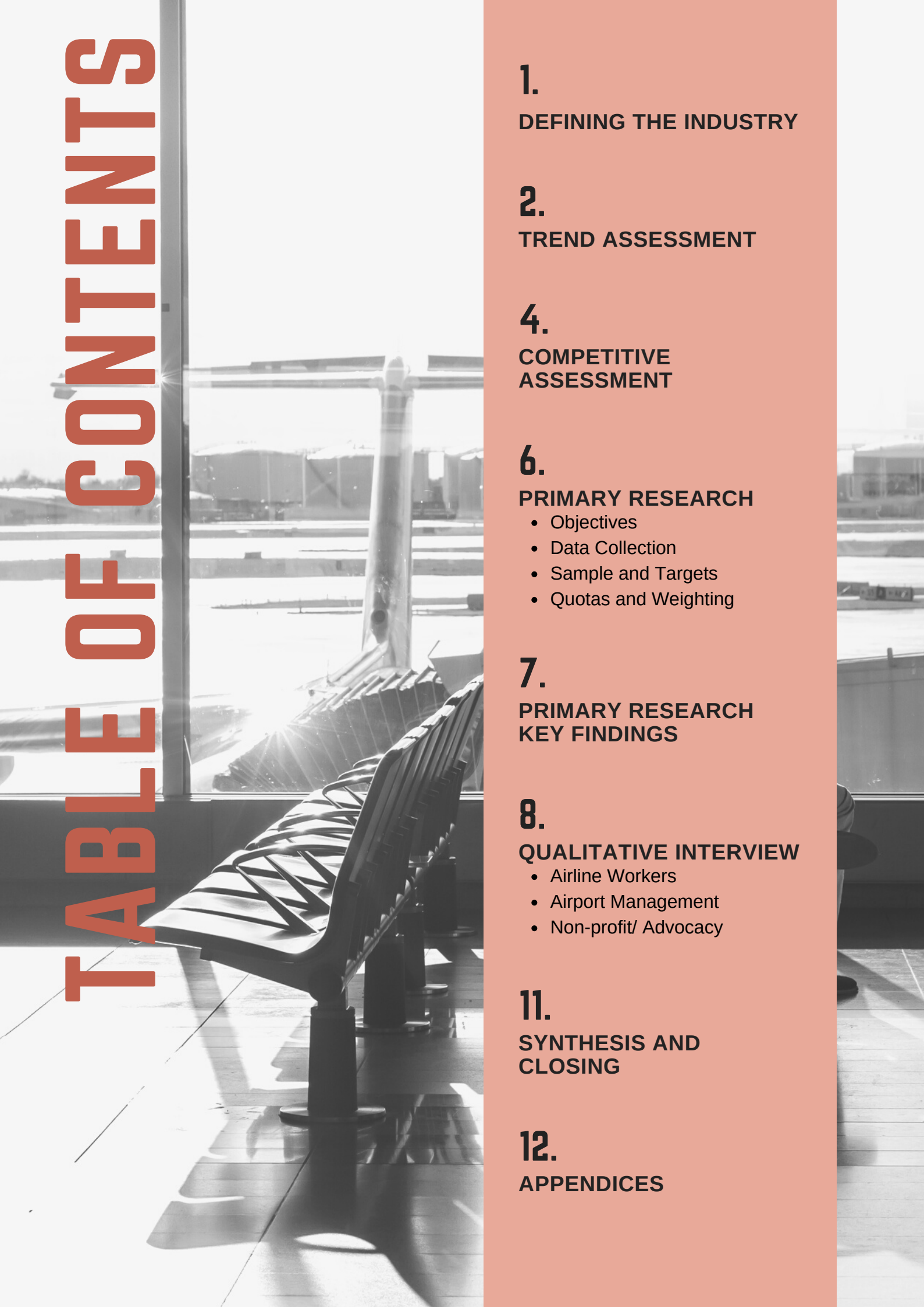


RESEARCH REPORT

CUSTOMER AND KEY PARTNER



TABLE OF CONTENTS



1.

DEFINING THE INDUSTRY

2.

TREND ASSESSMENT

4.

**COMPETITIVE
ASSESSMENT**

6.

PRIMARY RESEARCH

- Objectives
- Data Collection
- Sample and Targets
- Quotas and Weighting

7.

**PRIMARY RESEARCH
KEY FINDINGS**

8.

QUALITATIVE INTERVIEW

- Airline Workers
- Airport Management
- Non-profit/ Advocacy

11.

**SYNTHESIS AND
CLOSING**

12.

APPENDICES

DEFINING THE INDUSTRY

There has been a constant need for movement throughout humankind's time on earth. From early explorers to wanderlust millennials, transportation and travelling have been a part of our norm. When focusing on countries that have set up the adequate infrastructure and a clientele that can spend the money to travel, there has been a noticeable gap in the aviation industry for people with disabilities. This research paper brings together different views, evidence, and facts about accessible transportation and how they currently are positioned. Specifically, key recommendations have been made by reviewing articles, conducting interviews, reaching out to subject matter experts, and interpreting these findings. These key recommendations will identify why consulting companies like Consulting Services for Accessible Transportation (CSAT)¹ should target Canadian airports authorities to offer a one-stop opportunity to provide professional guidance on accessibility compliance as an easy, low cost, and effective solution.

This research paper will focus on the aviation industry, specifically those under the North American Identification Classification System (NAICS) 4811 - Scheduled air transportation. The sector in which this industry would fall is 48-49 - Transportation and Warehousing, and the sub-sector is 481 - Air Transportation. The research paper will outline the suggestion to target this specific industry. As well, the formulation of other key recommendations which are based on the analysis of the following:

1. Trend assessment using the PESTEL analysis
2. Competitive assessment using the Porters 5 Forces
3. The results of interviews and interactions conducted

Further to primary and secondary research, assumptions have been made to guide and report on the key recommendations for CSAT.



To supply travel service providers with turn-key solutions to regulatory compliance while removing barriers for persons with disabilities. An essential service to facilitate the removal of travel-related barriers for persons with disabilities.¹

¹ Consulting Services for Accessible Transportation. <https://www.accessibletravelconsultants.com/>. Publication date unavailable. Retrieved 10 February 2022.



TREND ASSESSMENT PESTEL Analysis

This section relies on the PESTEL framework to provide structure to key trends within the Aviation Industry. A focus was taken specifically on those key trends relevant to this research paper.

Political / Legal

In light of the Canadian government's push towards realizing a barrier-free reality for persons with disabilities, legislation changes such as the Accessible Canada Act were made to eliminate and ensure greater opportunities proactively. These legislative initiatives and acts aim to support culture change, emphasize the development and review of standards, and ensure compliance and enforcement through monitoring and oversight.² This indicates that the Canadian government is fully supportive and has enforced oversight towards the accordance of principles such as everyone being treated with dignity, access to the same opportunities and participation. To create accessibility standards within the realm of specifically the transportation sector, the following regulations have been placed for Transportation Service Providers (TSPs) to follow through:

- Accessible Transportation for Persons with Disabilities Regulations (SOR/2019-244) (Canada)
- Air Transportation Regulations (SOR/88-58) (Canada)
- Personnel Training for the Assistance of Persons with Disabilities Regulations (SOR/94-42) (Canada)
- Accessible Transportation Planning and Reporting Regulations (S.C. 2019, c. 10) (Canada)

The Canadian Transportation Agency (CTA) is Canada's independent, expert tribunal and regulator with all the powers of a superior court concerning all matters within its mandate.³ In instances where a TSP has a new personnel training module to release, the CTA will need to review and approve.

Through various literature reviews, it has become evident that there have been gaps and challenges even with political support, legal guidelines, and entities in place. This can be seen in, "CTA acknowledged its uneven regulatory regime, citing the patchwork of regulations and voluntary standards, some of which are outdated and inadequate in their scope, resulting in inconsistent accessibility-related services and reduced access to transportation services for persons with disabilities".⁴ These gaps are areas for CSAT to assist companies and entities in solving.

See **Appendix 1** for Canada's Transport Portfolio.

² *Summary of the Accessible Canada Act*. <https://www.canada.ca/en/employment-social-development/programs/accessible-people-disabilities/act-summary.html>. Publication Date Unavailable. Updated November 20, 2020. Retrieved 26 February 2022.

³ *Canadian Transport Agency*. <https://otc-cta.gc.ca/eng/organization-and-mandate>. Publication date unavailable. Retrieved 26 February 2022.

⁴ Reynolds, C. (2019). *Advocates say new Canadian air travel rules present greater barriers to travel by disabled in some cases*. The Globe and Mail. Retrieved 28 February 2022, from <https://www.theglobeandmail.com/business/article-advocates-say-new-canadian-air-travel-rules-present-greater-barriers/>.

TREND ASSESSMENT CONT'D

PESTEL Analysis

Economics

According to a 2018 report by the International Air Transport Association (IATA) on the importance of air transport to Canada, the air transport industry, including airlines, and its supply chain, are estimated to support US \$37 billion of GDP (Gross Domestic Product) in Canada. Also, by buying goods and services from local suppliers, the Canadian air transport sector supports 146,000 jobs in the economy. About 3.2 percent of the country's GDP is supported by inputs to the air transport sector.⁵ This demonstrates an industry with money to invest into initiatives that comply with the space it operates.

Social

The number of Canadians aged 15 and over with disabilities is estimated to be around 6 million. More than one-sixth of these individuals consider themselves housebound due to the lack of specialized transportation.⁶ In a review of the Ontario Chamber of Commerce post on Inclusivity and Accessibility: A Smart Business Decision, it was reported that one in five Canadians has a disability and that they represent a purchasing power of \$55 billion annually.⁷ This number includes two factors; the first is that one in three seniors has a disability, and the second is that seniors are the fastest-growing population segment. This demonstrates that accessibility will continue to be a focal point for Canadian society.



"More than one-sixth of these individuals consider themselves housebound..."

Technological

More than one in ten Canadians with disabilities (11.7%) use a cell phone, smartphone, or smartwatch with specialized features in Canada. They may utilize a computer, laptop, or tablet with customized software or support their disability.⁸ A significant step toward improving accessible transportation for people with disabilities is technology development. The industry is expected to focus on achieving full integration of real-time communication and information systems simply and effectively across languages, media, and platforms in the future. Although the basic architecture for personal devices is robust in accommodating people with disabilities, the implementation of these open-source systems into usable applications remains a challenge.

⁵ *The Importance of Air Transport to Canada*. International Air Transport Association. (2018). <https://www.iata.org/en/iata-repository/publications/economic-reports/canada--value-of-aviation/>. Retrieved 28 February 2022.

⁶ Choi, R. (2021). *Accessibility Findings from the Canadian Survey on Disability*, 2017. Statistics Canada. <https://www150.statcan.gc.ca/n1/pub/89-654-x/89-654-x2021002-eng.htm>. Retrieved 26 February 2022.

⁷ *Inclusivity and Accessibility: A Smart Business Decision*. OCC. (2017). Retrieved 2 March 2022, from <https://occ.ca/inclusivity-and-accessibility-a-smart-business-decision/>.

⁸ Choi, R. (2021). *Accessibility Findings from the Canadian Survey on Disability*, 2017. Statistics Canada. Retrieved 26 February 2022, from <https://www150.statcan.gc.ca/n1/pub/89-654-x/89-654-x2021002-eng.htm>.



COMPETITIVE ASSESSMENT

Porter's 5 Forces

The profitability of this industry is affected by five forces. These five forces are derived from Harvard Business School Professor Michael Porter. This section will focus on Porter's Five Forces.



BUYERS

Most accessibility consulting firms provide free initial consultations, which allow guests to become acquainted with different companies. Nevertheless, whether it is providing consulting services, developing plans and services, or providing staff training, it will cost the client and the organization time and money. Therefore, switching will be more costly for the client. While the client may have multiple partner companies and opportunities, the client's bargaining power is limited due to the relatively high switching costs.

COMPETITORS

Public agencies and consulting firms are becoming involved in advocacy on behalf of people with disabilities and helping transportation companies improve their policies and training to comply with the Accessible Canada Act. Examples include social and welfare services agencies, the Canadian Council for Persons with Disabilities, and others. The main competitors in the market are the Herrington Group, Left Turn Right Turn and People Access. Moreover, similar training institutions and online courses are available to assist individuals with disabilities in accessing transportation. For example, Airports Canada Online offers the Airport Accessibility Certificate, a program designed to give airport operators the knowledge and skills to make their airports more accessible for persons with disabilities, including people who experience mobility difficulties.



COMPETITIVE ASSESSMENT CONT'D

Porter's 5 Forces

NEW ENTRANT

There is a medium-level threat of new entrants into this market and a medium-level barrier to entry for new players. On the one hand, entry into the industry requires extensive work experience, solid partnerships, an understanding of all applicable laws and regulations, and a sense of training programs and employee transportation services. On the other hand, a new entry into the market is at a disadvantage to existing competitors, who have acquired experience and established various levels of cooperation with Canadian airports. Given all these factors, it has become increasingly difficult for new entrants to enter this field. Given that the industry does not require proprietary technology or economies of scale and requires a low initial capital investment, it can be said that entry barriers are moderate after considering these two factors.

SUBSTITUTION

Three factors influence substitute threats: high switching costs, substituting the type of service provided, and insufficient expertise in the service items, which result in a low threat of substitutes. As a first consideration, whether it is consulting or staff training, developing different services for various companies requires a substantial amount of time and money. Accordingly, the high switching costs will discourage clients from frequently changing the company they cooperate with. Furthermore, the services provided by other substitutes do not have the level of professionalism in the types of programs and services they provide. They offer free consultations to their clients but cannot offer professional training to corporate personnel or regulate businesses to ensure compliance with Accessibility Ontario.

SUPPLIERS

A notable supplier in this industry is the Canadian government. The Canadian standards act as a baseline for consulting companies to follow to bring TSPs up to par. For standards and acts, one can expect that changes can be made over time or with changes in governments. These changes would require consultants to stay up to date to capitalize on them by providing realignment services. As previously mentioned, it is also appropriate to assume that most resources or tools created will need to go through CTA. This enforcement pushes companies to comply, which provides consultancies with customers who need their services. A second notable supplier would be the non-profit/ advocacy groups that work with airport authorities on accessibility initiatives through Accessibility Advisory Committees. Having connections with these non-profit advocacy groups allows them to consider them when an airport authority requires a recommendation.



PRIMARY RESEARCH

OBJECTIVES

The specific objectives of this research are (but are not limited) to:

- Investigate the expectations and the perceptions that potential clients would require assistance from CSAT
- To understand how to build awareness of CSAT's service and how to effectively communicate to targeted segments
- Understand how key partners such as advocacy groups can be leveraged

DATA COLLECTION

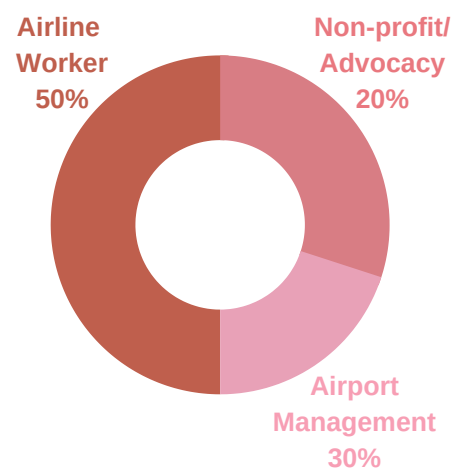
A group of graduate students from the Master of Management Innovation and Entrepreneurship program at Queen's University's Smith School of Business conducted qualitative interviews and chats. Three types of stakeholders were prioritized. The first were workers from the airline industry; these interviews were conducted from March 7th, 2022, to March 18th, 2022. The second were managers or directors from airport authorities; these interviews and discussions were conducted from March 10th, 2022, to March 18th, 2022. The last were non-profit advocacy groups conducted from March 16th, 2022, to March 23rd, 2022.

SAMPLE & TARGETS

- The **qualitative research** consisted of three types of stakeholders: airline industry workers, airport authorities and advocacy groups.
- The first research set was n=5 **transportation workers** that varied in job roles. 3 were customer service representatives, and 2 were active flight attendants.
- The second set of research was to n=3 **managers or directors from the airport authorities**. They were ultimately identified as the target customers.
- The third set of research was to n=2 **non-profit/advocacy groups**. They were identified as key partners. They are seen as subject matter experts and advocate for those who require accessibility services. The two selected advocacy groups specialize in accessibility for persons with disabilities.

QUOTAS & WEIGHTING

Quotas and weighting were employed to ensure the sample composition of each survey was representative. More emphasis was placed on the airport authorities and non-profit/ advocacy groups as they work more closely with consultants.



PRIMARY RESEARCH KEY FINDINGS



1 NETWORKING IN THE AVIATION INDUSTRY IS DIFFICULT

Connecting with the ideal decision-makers in the aviation industry requires more than a cold call. Also, many of their website's homepage did not provide additional contact details to reach out in different modes. Through conducting this research paper, a strategy was used to get points of interaction that were meaningful for our findings. It was found that many of these organizations worked similarly to government agencies, where announcements to the public were sent out through blogs or organizational "news" pages that contain the name and contact detail of the public relations representative that can direct you to the correct decision-maker. The types of articles or blogs targeted should be relevant to accessibility.

2 AIRPORT AUTHORITIES SHOULD BE THE TARGET CUSTOMER

When connecting with airline workers to identify who provides their training and to determine how airline companies make decisions around accessibility services and initiatives, it was mentioned that they follow the airport's protocols. In narrowing it down to a single country, it would be easier for CSAT to specialize in a country that has committed to accessible transportation and one that continues to review and update its acts/laws. As CSAT has internal intelligence already centred into Canada, it would be recommended to target Canadian airport authorities. The airport authorities look after the airports and provide governance for accessibility services to be put into place with enough power to have airline companies comply.

3 NON-PROFIT/ ADVOCACY GROUPS ARE A VITAL PARTNER

Through multiple literature reviews and scans, as well as through connecting with airport authority directors, it was discovered that airport authorities rely on non-profit/ advocacy groups to provide recommendations and feedback on potential solutions or consultants. This is done through either outreach or, more likely, by having these entities sit on their Accessibility Advisory Committees. In receiving this feedback and scanning non-profit/advocacy groups' websites, it was evident that a partnership with them would be beneficial.

PRELIMINARY RECOMMENDATIONS

The following sections will go into more detail regarding the interviews and points of connections that were done. In essence, CSAT is recommended to build partnerships with non-profit/ advocacy groups that work closely with Canadian airport authorities.

QUALITATIVE INTERVIEW

Airline Workers

“ *Everyone should be served with dignity.* ”

Porter Flight Attendant
10 years in the industry



RECOMMENDATION

Airline companies are overly and openly concerned about inclusiveness. It has been suggested that they are getting better at the services and tools offered through the years. It was noted that these tools and resources must all be approved by Transport Canada. Since the airlines abide by the mandates and rules of their entering country and airport, a primary target customer should be the Canadian Airport Authorities. They have a legal obligation to maintain.

- In connecting with airline workers, flight attendants from Porter Airlines and Air Canada, it was discovered that services for the different Special Attention Passengers (SAP) vary depending on the country. For instance, differences in the services provided in the United States and Canada vary because the airport authorities need to abide by different legislations and mandates.
- Airline staff-ground or third party assists persons with disabilities by getting them into the plane. The role of who does this assistance varies depending on what is dictated by each airport authority.
- Tools and resources provided to persons with disabilities, like cards or materials used to outline procedures in case of an emergency in brail, are vetted and approved by Transport Canada.
- Set procedures are in place, such as when ground staff greet persons with disabilities at check-in and assign them to the lounge, and once the flight is ready, they would be escorted, then an attendant brings them to the seat. Those visually impaired are always put by the emergency exit (or 3 –4 seats away from the emergency exit) and shown where the call button is.
- All SAP get their briefings on how to support them during an emergency. This also includes early feedback on how to assist them in a crisis. Standard practice is always to ask. If you are deaf, you have a standard briefing that a whole cabin gets are written while you watch the demonstration. If visually impaired, your resources are in braille. By law, they have to offer a briefing to anyone with a visible disability. If they decline, it is okay, but they have to offer.
- Transport Canada mandated no charge for someone who needs a travel companion or travel assistant who requires a seat.
- Training is through your airline company, manuals; and training materials are regulated and vetted by Transport Canada.

The interview notes above have been validated by phone conversations with Canadian North, PAL Airlines and Northwestern Air staff.

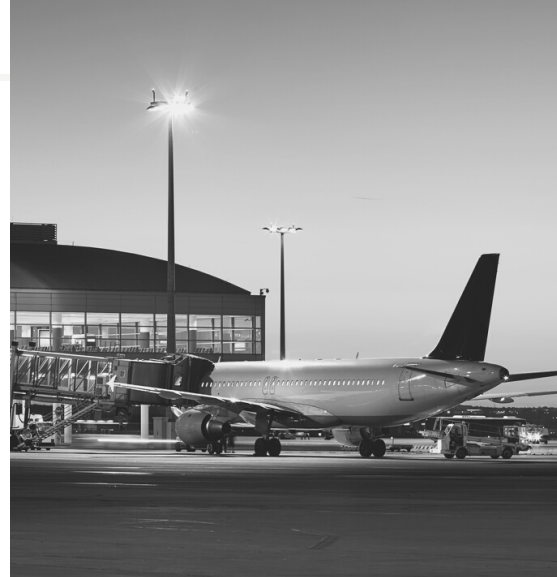
QUALITATIVE INTERVIEW

Senior Management

“Focus on the barrier
not the disability.”

Airports Authority Director

”



RECOMMENDATION

Canadian Airport Authorities are trying to push above the baseline mandates that have been placed through the Accessibility Act. An interesting question was mentioned: how does one measure better? There was a concern in ensuring that airport authorities are not simply “check-marking” what is required as a baseline but going beyond that. There seems to be an opportunity for developing a service that ensures continuous improvement. Further to this, a way to measure these improvements. Lastly, the core of the service delivery should also contain information on how to communicate around this topic more widely to address attitudinal barriers.

- In connecting with airport authorities, like the Greater Toronto Airport Authority and the Winnipeg Airport Authority, it was mentioned that Canadian Airport authorities must fulfil their obligation to operate and maintain the airports on behalf of the land lease. Airport authorities are federally regulated entities.
- Customers are considered airline partners (I.e., WestJet, Air Canada, etc.).
- Training is a delicate balance. The airport authority has authority over their employees but works with airline customers to ensure a shared culture.
- Standardization has been an issue even when seeing accessibility at a regional or international level.
- Part of the challenge is working with some people that do not get that accessibility is a human rights issue.
- On the business side, you need to reconcile why this is the right thing to do and narrate it through a business lens, such as emphasizing market potential.
- Canadian airports are unique as they are established non-for-profit/non-shareholding that operates as a business. They do not receive funding from the province or federal government. As a result of their entity, they must reinvest their revenue back into the facilities (aeronautical and non-aeronautical).
- During budget season, everyone must earmark budgets towards initiatives.
- Regarding procurement, it depends on the value of the contract. For example, for a CA \$100,00 contract, there will be a need to issue a public competition. If it is lower than a specific amount, it can go a couple of diverse ways. An example could be sole sourcing, although justification will be required (I.e., known expert in the city).
- Accessibility Advisory Committees are formulated with a composition of people from the Airport Authority (I.e., communications, human resources, IT, engineering, etc.), and the rest are non-profits or advocacy groups.
- These committees are essential in brainstorming solutions and providing feedback and recommendations to make transportation more accessible. They are also relied on to compile real experiences, needs and travellers' pain points.

QUALITATIVE INTERVIEW

Non-profit/ Advocacy

“ We need to keep pushing forward.

CNIB, Manager

”



RECOMMENDATION

Non-profit/ advocacy groups work closely with Airport Authorities by sitting in their Accessibility Advisory Committees. These committees are used to provide insight and recommendations on initiatives that improve the lives of persons with disabilities. It has been noted that the better solutions are those where the right people are included in the discussion and every step of the way. There should be partnerships built with this stakeholder to ensure networking is maximized and to ensure there is an understanding of what is needed from those who know it best. Secondly, it is best when implementations are rolled out in stages to ensure persons with disabilities are testing parts of the solution. Lastly, when planning or mapping out solutions, it is best to have these mocks and demonstrations created in a way that can be shared with persons of disabilities to ensure they remain part of the process from start to end. This can be seen as a differentiating factor among competitors too.

- When advocating for persons with disabilities, some companies say they have no resources, are too busy, have no capacity, the industry is in a slump, etc.
- Accessibility Advisory Committees are a good way of bringing the stakeholders' perspective to the decision-makers.
- Every major municipality has an Accessibility Advisory Committee, and non-profit/ advocacy groups hold seats.
- There can be two extremes, either well consulted due to proper communication and transparency, or the other extreme where new initiatives are put before the committee once the project is done.
- There are expectations for airports, and some airports procure solutions and then are surprised that it is not a practical solution even though they consulted with someone. The issue is that nowhere in that process did they talk to the people who will be using it.
- Another issue is that those consulting provide blueprints, plans, or demonstrations that are not accessible, so persons with disabilities cannot review or experience these outlines to offer input.
- Canada has a regulator, the CTA; they have a statutory power to inspect, but unless someone complains, they are reluctant to act. They have enforcement officers who have the power of inspecting.

See **Appendix 2** for any available details on our research participants.

SYNTHESIS AND CLOSING

Through our conducted interviews/ contact correspondence and our secondary research, it is evident that there is a push towards a barrier-free reality for persons with disabilities in countries like Canada. As acts and legislation are put into place, they are expected to be carried out by the entities that support the transportation sector. As this research paper has progressed, it has been clear that those under specific pressures and who are required to make appropriate changes and work with their customers (I.e. airline companies) to comply are the Canadian Airport Authorities. Our recommendation to CSAT is to target this customer.

It is also worth noting that the airport authorities have specific procurement procedures to follow. Still, within these procedures, outreach to non-profit/ advocacy groups found within their own Accessibility Advisory Committees is typically the way to understand issues and recommend solutions thoroughly. The Rick Hansen Foundation and CNIB are two notable examples of non-profit/ advocacy groups that have provided such recommendations to airport authorities, such as the Greater Toronto Airport Authority⁹ and Victoria International Airport.¹⁰ Our recommendation to CSAT is to work with these non-profit advocacy groups to become more visible and generate leads. For instance, The Rick Hansen Foundation has an “accessibility professional network” focused on this purpose. The cost of entrance is USD \$225/ per year.¹¹ Through scanning members’ reviews, they mention that being in this network generates quality leads.

Differentiating factors should point towards including persons with disabilities far beyond the brainstorming and discussion stages. Plans, blueprints, materials, etc., should be put to the test every step and shared with those who will be using it for feedback.

Lastly, through our interaction with the airport authorities, specifically the Winnipeg Airport Authority, it was made clear that there is a need for solutions that are not only reaching the baseline. Those solutions and services should be continuously improved, and there should be a way to monitor and report on them by a means that also demonstrates a return on investment. Our recommendation to CSAT to differentiate itself is to consider the services and resources they offer and gear them in a way that speaks to the service being above baseline requirements, a plan for continuous improvement and reporting.

⁹ *Toronto Pearson first airport in Canada to offer innovative technology to improve accessibility for travellers with sight loss.* Greater Toronto Airports Authority. (2019). Retrieved 10 March 2022, from <https://www.newswire.ca/news-releases/toronto-pearson-first-airport-in-canada-to-offer-innovative-technology-to-improve-accessibility-for-travellers-with-sight-loss-831157145.html>.

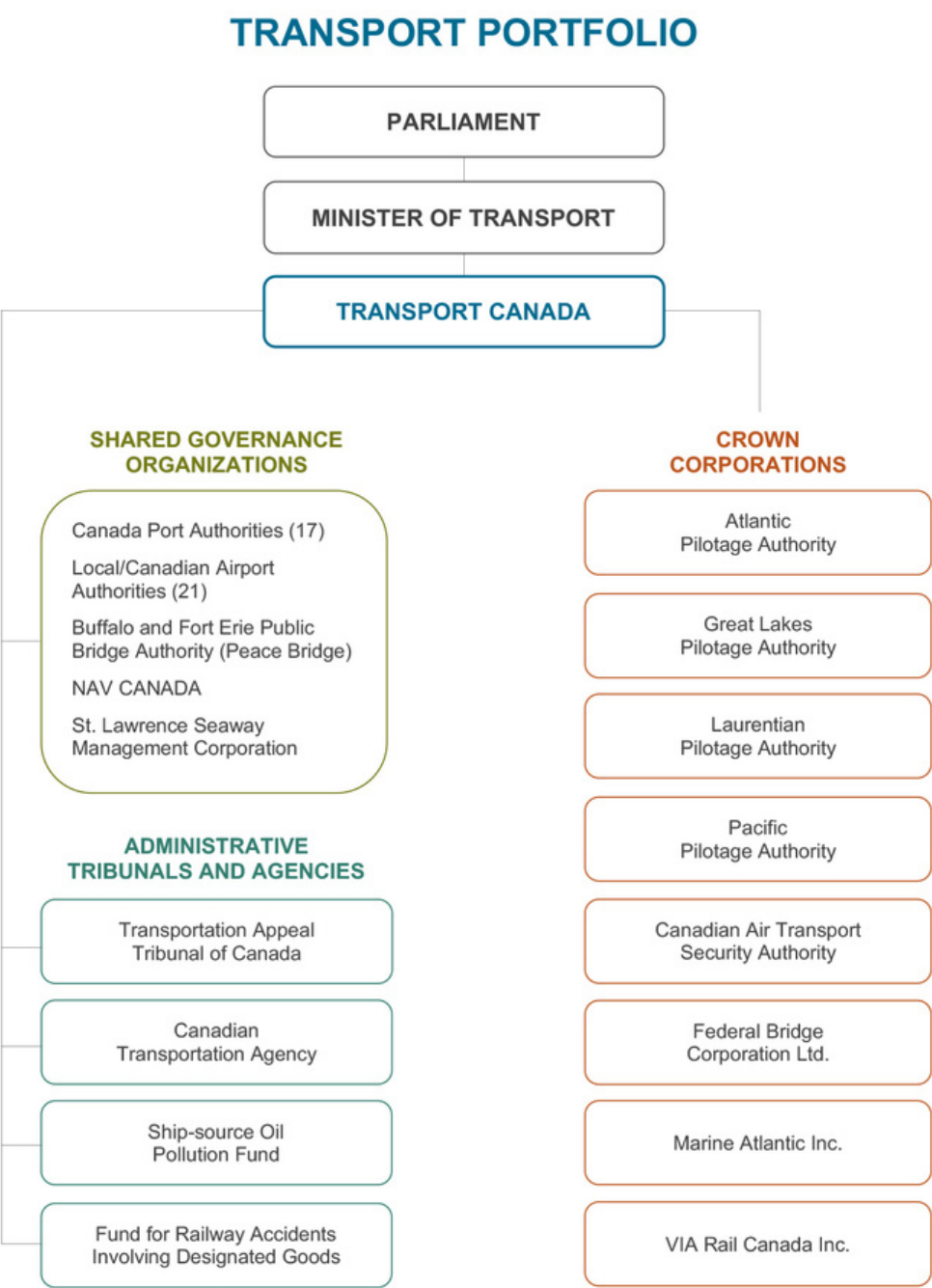
¹⁰ *Victoria International Airport (YYJ) Achieves Gold Accessibility Certification from Rick Hansen Foundation.* (2021). Retrieved 5 March 2022, from <https://www.rickhansen.com/sites/default/files/2021-01/finalyyj-victoria-international-airport-achieves-gold-accessibility-certification-rick-hansen.pdf>.

¹¹ Accessibility Professional Network. (2022). <https://www.rickhansen.com/become-accessible/accessibility-professional-network>. Publish date unavailable. Retrieved 10 March 2022.



APPENDIX 1

The graphic below provides an overview of all entities for which the Minister is responsible. The graphic below can assist CSAT in identifying those entities under Transport Canada.



<https://tc.canada.ca/en/corporate-services/transport-canada-portfolio>

APPENDIX 2

The table below provides more details on the contacts that partook in the Primary Research portion of this report. For most cases, the participant preferred to remain anonymous.

Organization	Position	Details (if available)
Greater Toronto Airport Authority	Sr. Communications Advisor	Tori.Gass@gtaa.ca https://www.newswire.ca/news-releases/toronto-pearson-first-airport-in-canada-to-offer-innovative-technology-to-improve-accessibility-for-travellers-with-sight-loss-831157145.html
VIA Rail	Governmental and Community Relations	Elisabeth_Prass@viarail.ca http://www.ccdonline.ca/en/transportation/rail/12December2018-VIA-Rail-Selects-Siemens
Winnipeg Airport Authority	Director	https://www.waa.ca/en/newsroom/view/89/a-hands-on-review-of-the-airport-experience-to-explore-accessibility-opportunities-at-ywg/
Porter Airlines	Flight Attendant (2)	<u>N/A</u>
Council of Canadians with Disabilities	Member	N/A
CNIB	Manager	N/A
Misc.	Airline Assistance (3)	PAL Airlines customer.service@palairlines.ca Northwester Air reservations@nwal.ca Canadian North contact@canadiannorth.com

APPENDIX 3

Air passenger traffic at Canadian airports, annual

Geography	Air passenger traffic	2016	2017	2018	2019	2020
Canada (map)		Number				
	Total, passengers enplaned and deplaned	140,892,544	150,808,451	160,641,587	162,864,077	45,897,143
	Domestic sector	83,694,751	88,284,134	93,299,144	93,313,525	28,556,695
	Transborder sector	27,221,599	29,519,218	31,459,469	32,192,583	7,053,138
	Other International sector	29,976,194	33,005,099	35,882,974	37,357,969	10,287,310

<https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=2310025301>

Statistics Canada. Table 23-10-0253-01 Air passenger traffic at Canadian airports, annual