Segmenting Sentiment: Categorizing Keen and Averse Travellers during the COVID-19 Pandemic

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Introduction

The COVID-19 virus has devastated the Canadian tourism economy (Destination Canada, 2021). Destination Marketing Organizations (DMOs) are increasingly focused on the critical perspective of domestic travellers, given uncertainties and fears related to international travel. In Canada, Destination Canada (DC) plans to focus on marketing domestic travel to Canadians (Destination Canada, 2021). The domestic market will drive recovery by realizing the pent-up demand for leisure travel, starting with short-haul trips due to a lingering wariness of booking long-haul trips. If two-thirds of the previous volume of outbound trips taken by Canadians were spent in Canada rather than abroad, the negative impact on Canada's visitor economy would be eliminated, and recovery would be accelerated (Destination Canada, 2021).

DC research examining Canadian resident sentiment shows that Canadians generally feel safer, are more receptive to travel advertisements, and are more welcoming to other visitors now than earlier in the pandemic. Further, the closer to one's community, the safer residents feel and the more receptive they are to advertising and welcoming visitors. There are also regional and provincial differences. For instance, in a recent survey (December 7, 2021), 90% of Atlantic Canadians felt safe to travel to communities near them, whereas only 77% of those in the prairies felt similarly. Notably, 72% of Albertans felt safe to travel to other provinces within Canada, while only 51% of British Columbians shared that sentiment. While these findings are valuable for DC to identify inter-provincial differences, they do not explain the underlying travel attitudes of residents. In reality, some residents are likely inclined to return to travel as soon as possible, while others feel strongly opposed to returning to travel at this time.

Understanding residents' attitudes toward travel in the current economic climate can help DMOs better prepare a pathway to recovery. Research is needed to segment Canadian travellers to support campaign timing and messaging appropriateness. The core question this research attempts to answer is: what are the sentiments to travel given the current pandemic situation? This study seeks to delineate Canadians' travel attitudes to support a pathway for economic recovery to provide an answer. To this end, the study analyzes data collected by DC to examine Canadians' attitudes toward their feeling of safety toward travel.

To understand this sentiment during the COVID-19 pandemic, it is compared based on geographic distance from residents' homes, ranging in scale from their community, province, country, the USA, and internationally. This research will support the recovery of Canada's tourism economy, comprised of many small and medium-sized enterprises. Tourism's recovery is not only vital economically, but socially, to build back its small communities, large urban centres, and all the places in-between. There are also broader implications for DMOs in countries with similar economies to Canada.

Literature Review

The hospitality industry has been one of the hardest hit by the COVID-19 virus since it first appeared in late 2019 (Gursoy & Chi, 2020). In Canada, this has translated to an estimated $19 billion deficit to Canada's visitor economy and the loss of approximately 150,000 jobs (Destination Canada, 2021). From a domestic perspective, destinations that develop their tourism for domestic travellers help stimulate economic development and reduce their vulnerability to future financial

losses (Canh & Thanh, 2020). In their study of domestic travel in Spain, Arbulú et al. (2021) observed that domestic tourism might offer much-needed relief for destinations while governments focus on restoring the nation's general mobility and building a more resilient and sustainable local economy.

Beyond the economic impact, research on travellers' intentions during the COVID-19 pandemic remains limited (Sánchez-Cañizares, 2021). Hao et al. (2021) have identified the crucial role of perceptions of the severity of the pandemic, along with personal negative and positive effects as direct influences on willingness to travel. Similarly, Abraham et al. (2020) noted the importance of generational cohort on perceived travel risk domestically and internationally. From the viewpoint of those who identify as risk-averse (i.e. travel avoidant), there is general agreement in the literature that higher levels of perceived risk are correlated to higher estimates of vulnerability and lower levels of travel motivation, destination image, and travel intentions (Caber et al., 2020; Hao et al., 2021; Prince and Kim, 2021). Indeed, a tourists' perception of being safe while travelling "is critical in [their] decision-making process in unsettling times" (Liu-Lastres et al., 2021, p.255). It is essential to distinguish between 'realistic' and 'symbolic' threats – the former representing threats to one's physical or financial safety and the latter to socio-cultural identity (Kachanoff et al., 2021). Though both may increase psychological distress, their relative importance is primarily determined by external influences. Karl et al. (2021) observed that those who perceived higher levels of a realistic threat were more likely to avoid travelling than those who felt symbolically threatened. When affective forecasts of their trip experience (i.e., emotionally visualized it before actual travel) are factored into this perceived realistic threat, their willingness to wait before travelling increases.

Since perceived safety can be an affective component of risk (Slovic and Peters, 2006), it is worth exploring the dichotomy between those keen to return to travel and those who are averse. Though limited, there are some examples in the nascent literature to explain these opposing attitudes. For instance, using a risk perception attitude framework, a study of female business travellers' risk perceptions, attitudes, and willingness to travel identified four broad groups – avoidance, proactive, responsive, and indifference (Liu-Lastres et al., 2021). Further, the authors found that perceived safety mediated relationships and influenced willingness to travel. To build on these findings, we explore how perceptions of safety relate to travel keenness and aversion sentiments. By segmenting residents based on their travel safety sentiments, the impact of geographic distance on travel attitudes can further our understanding of tourism's path to recovery.

Methodology

This study uses Latent Class Analysis (LCA) to model heterogeneity in travel safety sentiment among Canadians during the COVID-19 pandemic and to profile the characteristics of people with different travel safety dispositions. The variable of interest is feeling of safety to travel across territorial borders, both domestic (own community, own province/territory, and another province/territory) and international (the USA or other countries). To this end, we use a model-based, 3-step latent class approach with a set of covariates (Bakk, Tekle and Vermunt, 2013; Mulvey, Lever and Elliot, 2020).

Destination Canada collected the dataset as part of an initiative to examine COVID-19's impact on Canadian tourism. Our study focuses on the November 15, 2021, edition of the omnibus study,

which surveyed 1,819 Canadians representing the Canadian population. Our sample excludes 57 respondents (3.1%) who replied "I don't know" to any of the five focal questions.

This study examines the pattern of responses (latent class profile) to the Likert feeling-safe-to-travel questions (indicators) and their relationship to respondent demographics (covariates). Figure 1 illustrates the model with latent class indicator variables and covariates. We tested whether travel sentiment was homogeneous among Canadians in the first step. The indicator variables measured with the root travel intention question of "I feel safe to travel to ___" paired with five different territories: "communities near me," "communities in my province," "other provinces or territories in Canada," "to the United States," or "internationally." Table 1 details the breakdown.

Figure 1. A Latent Class Model of Travel Safety Sentiment

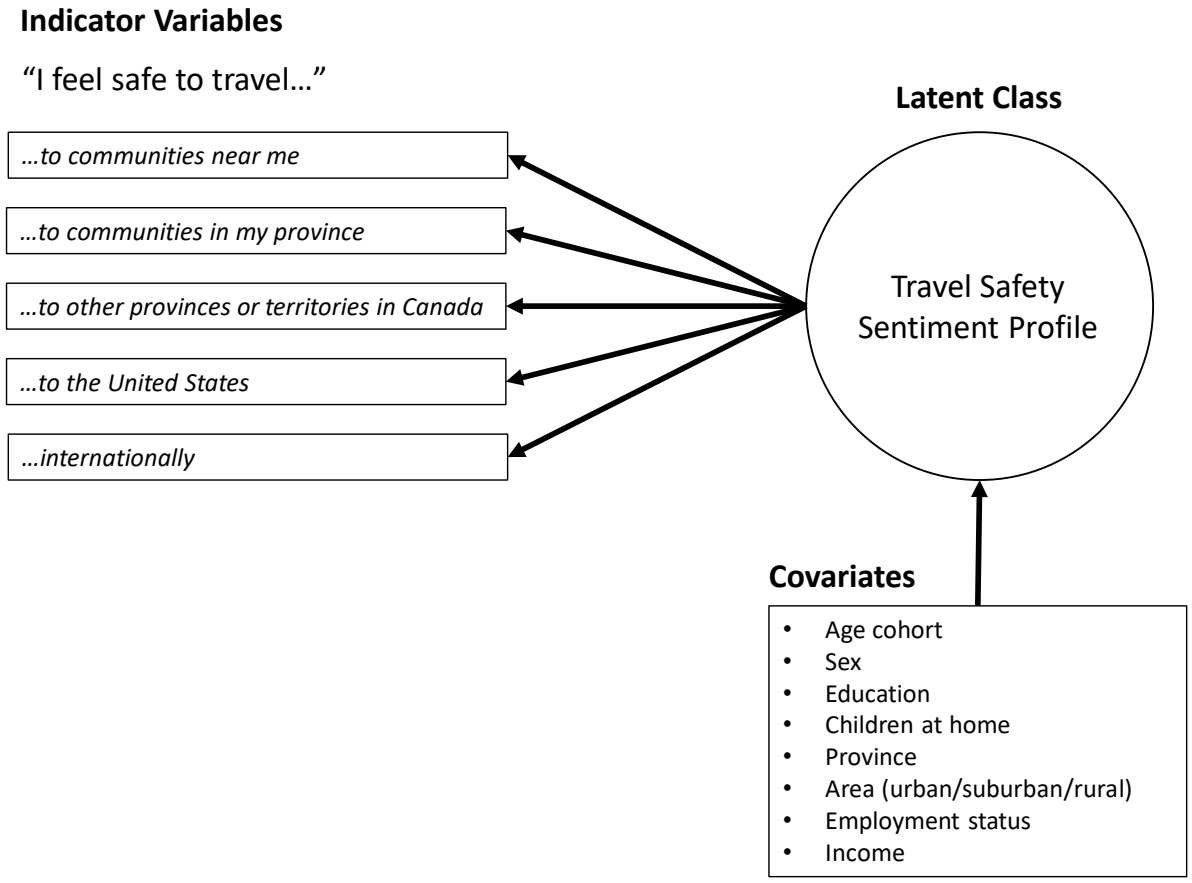


Table 1. Descriptive statistics for the latent class indicators

	Feel safe to travel…									
	Community		My province		Other provinces		United States		Internationally	
	N	%	N	%	N	%	N	%	N	%
Strongly agree	893	49.1%	782	43.0%	595	32.7%	324	17.8%	272	14.9%
Somewhat agree	673	37.0%	697	38.3%	570	31.3%	310	17.0%	296	16.3%
Neither agree nor disagree	130	7.1%	172	9.5%	301	16.5%	257	14.1%	296	16.3%
Somewhat disagree	73	4.0%	101	5.5%	226	12.4%	385	21.2%	341	18.8%
Strongly disagree	33	1.8%	51	2.8%	100	5.5%	511	28.1%	570	31.3%
Total	1801	99.0%	1803	99.1%	1792	98.5%	1787	98.3%	1775	97.6%
Missing/I don't know	18	1.0%	16	0.9%	27	1.5%	32	1.7%	44	2.4%

The LatentGOLD 6.0 software package estimated a series of latent cluster analysis models, beginning with a single cluster solution (a comparative baseline) and sequentially increasing the number of latent clusters while examining the fit statistics in search of conceptually and statistically superior solutions (Vermunt & Magidson, 2021). We report the results of the four-cluster model – a finding supported by statistical measures (BIC scree plot and a bootstrapping comparison) and our interpretation of the parameter estimates (available from the authors omitted due to space restrictions).

Findings

We interpret the cluster names and report the cluster sizes as Typical Canadians (43.4%), Domestic Travel-ready (23.5%), Travel-averse (17. 2%), and Unfettered Travellers (15.9%) presented in Table 2.

The first travel safety sentiment cluster is *Typical Canadians*, the largest group that mirrors the overall pattern of responses. They somewhat agree with feeling safe to travel domestically but report greater apprehension about travelling to the United States or other international destinations. The *Domestic Travel-ready* cluster shares similar views regarding international travel yet is significantly more open to travel within Canada. The *Travel-averse* cluster does not feel safe crossing provincial or international borders and remains apprehensive about local travel in the community or province. Finally, the *Unfettered Travellers* feel safe travelling anywhere.

Next, we tested the associations of cluster membership to the covariates, summarized in Table 2. The row indicating segment size serves as a baseline for the comparisons: Is cluster membership consistent? Or do significant differences exist in the distribution of people? We found highly significant differences ($p < .001$) in travel safety evaluations by age, education, children at home, province, employment status, and income and modest differences ($p < .05$) by area. Sex and language were not significant.

Table 2. Cluster membership probabilities by covariate category

Cluster	N	%	1 Typical Canadians	2 Domestic Travel-ready	3 Travel-averse	4 Unfettered Travellers	*F*	*p*-Value
Segment Size			44%	24%	17%	16%		
Age								
18-24	186	10.2%	0.53	0.22	0.09	0.16	234.3	<.001
25-34	310	17.1%	0.52	0.19	0.07	0.23		
35-44	294	16.2%	0.33	0.31	0.13	0.22		
45-54	326	17.9%	0.38	0.23	0.21	0.18		
55-64	318	17.5%	0.49	0.22	0.19	0.10		
65-74	299	16.5%	0.41	0.24	0.27	0.08		
>= 75	86	4.7%	0.52	0.23	0.25	0.00		
Sex								
Male	885	48.7%	0.46	0.23	0.14	0.17	5.2	n/s
Female	934	51.3%	0.42	0.24	0.20	0.14		
Language								
Francophone	373	20.5%	0.41	0.26	0.13	0.21	9.5	n/s
Non-Francophone	1282	70.5%	0.45	0.23	0.18	0.14		
Education								
Elementary	12	0.7%	0.00	0.46	0.54	0.00	57.3	<.001
High school, general or vocational	530	29.1%	0.46	0.21	0.19	0.14		
College	772	42.4%	0.42	0.26	0.17	0.16		
University certificates and diplomas	52	2.8%	0.49	0.24	0.08	0.20		
University Bachelor	314	17.2%	0.47	0.22	0.14	0.17		
University Master's degree	114	6.3%	0.40	0.26	0.17	0.17		
University Doctorate (PhD)	15	0.8%	0.35	0.19	0.18	0.28		
Children at Home								
Yes	477	26.2%	0.36	0.26	0.15	0.23	71.6	<.001
No	1331	73.2%	0.48	0.23	0.17	0.13		
Province								
British Columbia	247	13.6%	0.44	0.22	0.20	0.13	42.4	<.001
Alberta	204	11.2%	0.48	0.38	0.05	0.09		
Prairies	119	6.5%	0.38	0.08	0.28	0.26		
Ontario	698	38.4%	0.44	0.23	0.19	0.14		
Quebec	427	23.5%	0.44	0.25	0.11	0.20		
Maritimes	124	6.8%	0.41	0.18	0.22	0.19		
Area								
Urban area	757	41.6%	0.48	0.21	0.16	0.14	17.1	<.05
Suburban area	672	37.0%	0.43	0.25	0.17	0.15		
Rural area	364	20.0%	0.36	0.29	0.16	0.20		
Employment Status								
Working full time	773	42.5%	0.39	0.26	0.14	0.22	77.2	<.001
Working part time	158	8.7%	0.52	0.25	0.12	0.11		
Self-employed / freelance work	109	6.0%	0.44	0.29	0.11	0.17		
Student	118	6.5%	0.63	0.21	0.00	0.16		
Homemaker	93	5.1%	0.35	0.12	0.34	0.19		
Unemployed	92	5.1%	0.45	0.25	0.21	0.09		
Retired	455	25.0%	0.48	0.22	0.24	0.07		
Income								
$19,999 or less	115	6.3%	0.37	0.13	0.37	0.13	46.7	<.001
Between $20,000 and $39,999	296	16.3%	0.38	0.22	0.27	0.12		
Between $40,000 and $59,999	286	15.7%	0.41	0.29	0.15	0.15		
Between $60,000 and $79,999	242	13.3%	0.51	0.19	0.14	0.16		
Between $80,000 and $99,999	267	14.7%	0.43	0.29	0.13	0.15		
$100,000 or more	466	25.6%	0.46	0.25	0.11	0.18		

Some observations:

- Age: Younger cohorts are more likely to be *Unfettered Travellers* than older ones. Similarly, older persons are more likely to be *Travel-averse*.
- Education: Those who are the least educated (elementary school) are unlikely to share the views of *Typical Canadians* and are split between the views of *Domestic Travel-ready* and *Travel-averse*.
- Children at home: Households with children are more likely to have *Unfettered Travellers* than those without.
- Province: Albertans are comparably more *Domestic Travel-ready*. In contrast, people from the prairies exhibit variance in their views, with greater odds of being either *Travel-averse* or *Unfettered Travellers*.
- Area: Rural citizens have a strong desire to travel based on the number of *Domestic Travel-ready* and *Unfettered Travellers*.
- Employment status: Students are the least likely to be *Travel-averse*. In contrast, homemakers, retirees, and unemployed are more likely to hold *Travel-averse* views.
- Income: Lower levels of income are consistent with being *Travel-averse*.

Conclusion and Discussion

These findings confirm the presence of variances in travel safety sentiments across segments of Canadians. Indeed, Latent Class Analysis has identified distinct clusters ranging from a keenness to travel within national borders, a strong aversion to travel even close to home, and an unfettered openness to travel anywhere. Further, this study found significant differences in travel safety evaluations by age, education, children at home, employment, income, and geography.

Specifically, it is revealed that seniors are more averse to the idea of travel than are younger Canadians. This is intuitive because the COVID-19 virus has been more severe for older Canadians, with those aged 65 and older representing approximately 80% of all deaths during the first year of the pandemic (Government of Canada, 2021). Inversely, those who share an unfettered openness to travel, seemingly without limits, are generally younger relative to the study population. Given the relatively fewer counts of deaths and hospitalizations among this age category, it stands to reason that this has strengthened their resolve to travel despite the current situation. However, additional confounding factors, including high vaccination rates in Canada and comparatively strict measures to control outbreaks, may also influence this no-limits sentiment.

This study has found marginal support for differences between urban and rural Canadian travel sentiments regarding geographic covariates. The analysis indicates that those living in rural settings are keener to travel nationally and internationally than those living in urban environments. This heightened perception of safety to travel by those within rural communities, where exposure and COVID-19 case counts are lower than in urban communities, may increase rural residents' more positive travel sentiments. Canadians living in urban settings may interpret the world as more dangerous given their proximity to more people, leading to a greater sense of fear to travel. Provincial borders also reveal some key differences. For instance, Albertans clustered much more heavily in the domestic travel-ready cluster than others, particularly those living in Manitoba or Saskatchewan (i.e., the Prairies) who were not interested in travelling within Canada. Yet, Prairie

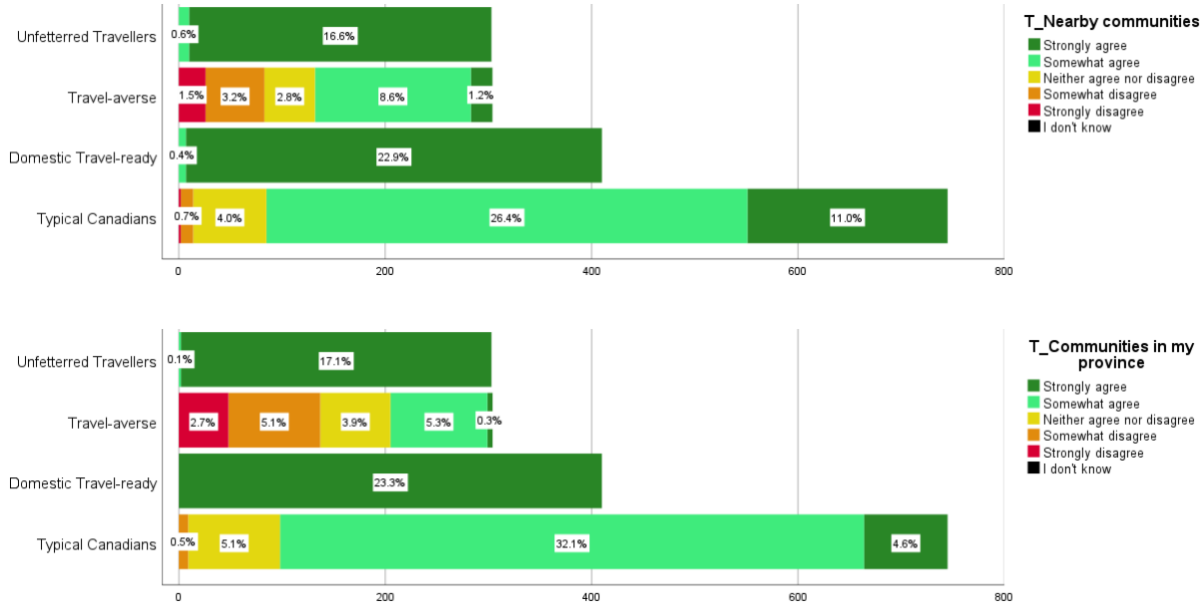
residents had the highest predisposition toward unfettered travel to the USA and internationally despite their aversion to travel domestically.

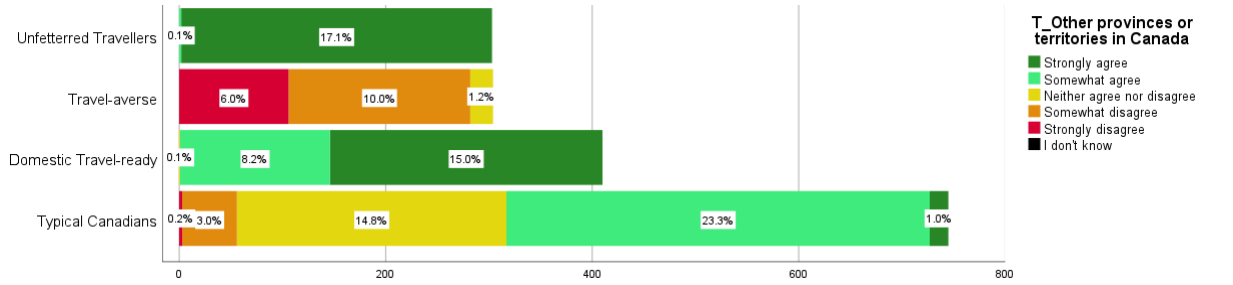
Further research exploring these dynamic sentiments is warranted to better understand the influence of borders between residence and travel destination. For some, even invisible borders that separate communities and provinces present a barrier to perceived travel safety. Others seem willing to cross all but the formal borders that separate countries, whereas a small cohort are unfettered by borders, no matter how firm.

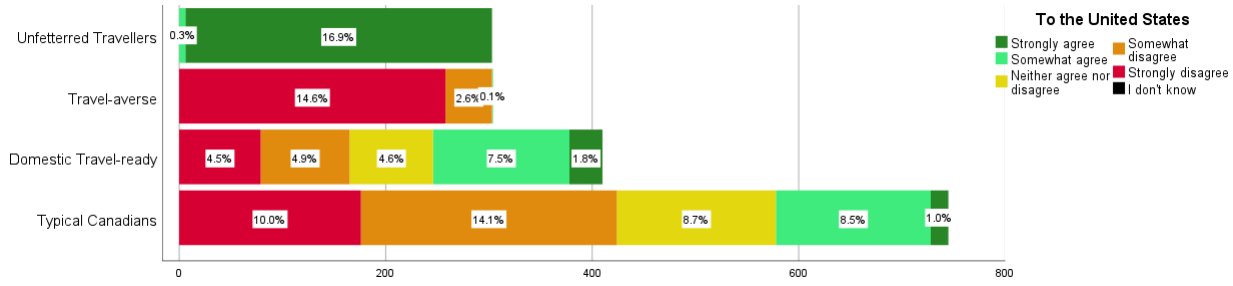
As DMOs continue to search for a path to recovery through the pandemic, these findings offer essential supports that may help determine possible pathways. For instance, by understanding that seniors are most risk-averse to travel, even close to home, DMOs may choose to partner with local and regional tourism operations and develop campaigns targeted to this demographic, emphasizing the safety of hyper-local travel experiences. In contrast, campaigns targeted to younger Canadians may highlight experiences beyond their community to encourage inter-provincial travel. As well, from a geographic perspective, it would be worthwhile to investigate clusters with relatively high sentiments toward travel to determine what messaging might spread their confidence in travel safety to others.

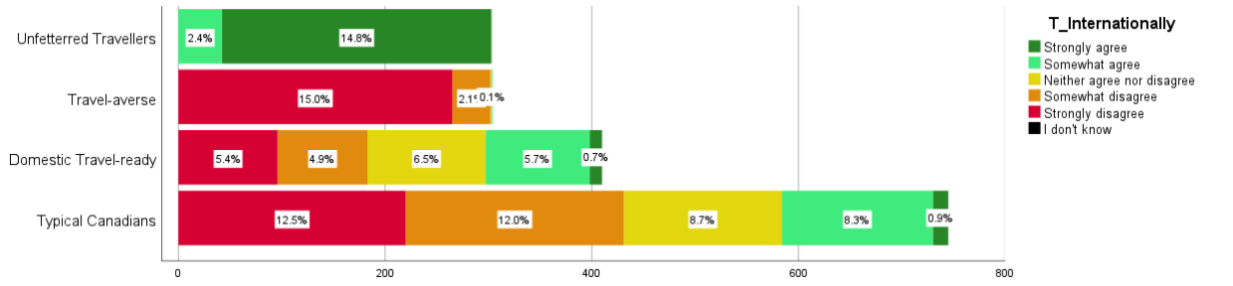
In sum, this research highlights the importance of residents' sentiments to travel during the COVID-19 pandemic, identifying the presence of four clusters: typical Canadians, domestic travel-ready, travel-averse, and unfettered travellers. Further, the crucial roles of demographics, particularly age and geography, have been examined to reveal for the first-time traveller segments by sentiments of safety and destination (Figure 2).

Figure 2. Travel safety sentiment by cluster and destination




Unfetterred Travellers
Travel-averse
Domestic Travel-ready
Typical Canadians
0.1%
17.1%
6.0%
10.0%
1.2%
0.1%
8.2%
15.0%
0.2%
3.0%
14.8%
23.3%
1.0%
0
200
400
600
800
T_Other provinces or territories in Canada
Strongly agree
Somewhat agree
Neither agree nor disagree
Somewhat disagree
Strongly disagree
I don't know


Unfetterred Travellers
Travel-averse
Domestic Travel-ready
Typical Canadians
0.3%
16.9%
14.6%
2.6%
0.1%
4.5%
4.9%
4.6%
7.5%
1.8%
10.0%
14.1%
8.7%
8.5%
1.0%
0
200
400
600
800
To the United States
Strongly agree
Somewhat agree
Neither agree nor disagree
Somewhat disagree
Strongly disagree
I don't know


Unfetterred Travellers
Travel-averse
Domestic Travel-ready
Typical Canadians
2.4%
14.8%
15.0%
2.1%
0.1%
5.4%
4.9%
6.5%
5.7%
0.7%
12.5%
12.0%
8.7%
8.3%
0.9%
0
200
400
600
800
T_Internationally
Strongly agree
Somewhat agree
Neither agree nor disagree
Somewhat disagree
Strongly disagree
I don't know

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